111TH CONGRESS 2D SESSION

S. 3591

To provide financial incentives and a regulatory framework to facilitate the development and early deployment of carbon capture and sequestration technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

July 14, 2010

Mr. Rockefeller (for himself and Mr. Voinovich) introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

- To provide financial incentives and a regulatory framework to facilitate the development and early deployment of carbon capture and sequestration technologies, and for other purposes.
 - 1 Be it enacted by the Senate and House of Representa-
 - 2 tives of the United States of America in Congress assembled,
 - 3 SECTION 1. SHORT TITLE.
 - 4 This Act may be cited as the "Carbon Capture and
 - 5 Sequestration Deployment Act of 2010".
 - 6 SEC. 2. TABLE OF CONTENTS.
 - 7 The table of contents for this Act is as follows:

TITLE I—CARBON CAPTURE AND SEQUESTRATION INNOVATION PROGRAM

- Sec. 101. Partnerships for carbon capture and sequestration.
- Sec. 102. Annual Department of Energy assessment.

TITLE II—CARBON CAPTURE AND SEQUESTRATION PROJECTS

SUBTITLE A—CARBON CAPTURE AND SEQUESTRATION EARLY AND EFFECTIVE DEPLOYMENT FUNDING ACT OF 2010

- Sec. 201. Short title.
- Sec. 202. Definitions.
- Sec. 203. Special funding program for development and deployment of carbon capture, sequestration, and conversion technologies.
- Sec. 204. Carbon capture and sequestration program partnership council.
- Sec. 205. Functions and administration of the special funding program.
- Sec. 206. Assessments and funding.
- Sec. 207. ERCOT.
- Sec. 208. Determination of fossil fuel-based electricity deliveries.
- Sec. 209. Compliance with assessments.
- Sec. 210. Midcourse review.
- Sec. 211. Recovery of costs.

SUBTITLE B—SEQUESTRATION TAX CREDIT AND CAPACITY INCENTIVES

- Sec. 251. Carbon sequestration tax credit amendments.
- Sec. 252. Federal financial incentives for additional 10 GW of capacity.

TITLE III—62-GW EARLY ADOPTER PROGRAM; SEQUESTRATION BONDS

- Sec. 301. Tax credit for early adoption of CCS.
- Sec. 302. Carbon sequestration bonds.

TITLE IV—CCS TECHNOLOGY STANDARD FOR POWERPLANTS

- Sec. 401. CCS standards for coal-fueled power plants.
- Sec. 402. Consolidated review of Federal authorizations.

TITLE V—CARBON STORAGE STEWARDSHIP

- Sec. 501. Short title.
- Sec. 502. Purpose.
- Sec. 503. Definitions.
- Sec. 504. Stewardship responsibility.
- Sec. 505. Responsibility for payment of claims.
- Sec. 506. Carbon Storage Stewardship Trust Fund.
- Sec. 507. Payments from the Trust Fund.
- Sec. 508. Carbon Storage Stewardship Board.
- Sec. 509. Adjudication of public claims.
- Sec. 510. First mover projects.
- Sec. 511. Relationship to other law.

TITLE I—CARBON CAPTURE AND **INNOVA-SEQUESTRATION** 2 TION PROGRAM 3 4 SEC. 101. PARTNERSHIPS FOR CARBON CAPTURE AND SE-5 QUESTRATION. 6 (a) Establishment of Program.— 7 (1) IN GENERAL.—Within 12 months after the 8 date of enactment of this Act, the Secretary of En-9 ergy shall establish a cooperative industry-govern-10 ment research and development program, in addition 11 to and in cooperation with the Office of Fossil Energy's carbon capture and sequestration research and 12 13 development program, to demonstrate novel and in-14 novative technologies— 15 (A) to capture or prevent carbon dioxide emissions from carbon-based fuels; 16 17 (B) to enable the beneficial use of carbon 18 dioxide; or 19 (C) to enable the long-term storage of car-20 bon dioxide. 21 (2) Participation of National Labora-22 TORIES AND UNIVERSITIES.—The program shall in-23 clude the participation of the National Energy Tech-24 nology Laboratory and may include the participation

1	of other National Laboratories, universities, and
2	other appropriate entities.
3	(b) Cost Sharing.—For purposes of developing and
4	demonstrating the technologies or approaches referred to
5	in subsection (a), the Secretary shall provide at least 80
6	percent of the cost of the development projects and the
7	industry participant shall provide not more than 20 per-
8	cent of such cost.
9	(c) Authorization of Appropriations.—There
10	are authorized to be appropriated to the Secretary to carry
11	out this section—
12	(1) \$100,000,000 for each of the fiscal years
13	2011 through 2015;
14	(2) \$50,000,000 for each of the fiscal years
15	2016 through 2020; and
16	(3) \$20,000,000 for each of the fiscal years
17	2021 through 2025.
18	SEC. 102. ANNUAL DEPARTMENT OF ENERGY ASSESSMENT.
19	(a) In General.—
20	(1) Department of energy report.—With-
21	in 1 year after the date of enactment of this Act and
22	annually thereafter until the Secretary of Energy de-
23	termines that technology preventing the emission of,
24	capturing, transporting, permanently storing or se-

questering, or putting to beneficial use carbon diox-

de is available to the commercial marketplace, the
Department of Energy shall conduct an assessment
in accordance with subsection (b) of this section of
the existing Federal programs supporting such technology and report to the Secretary and the appropriate authorizing and appropriating committees of

the Congress on the results of the assessment.

- 8 (2) Government accountability office re-9 VIEW.—Within 1 year after the first report is pro-10 vided to the Secretary and to the appropriate au-11 thorizing and appropriating committees of the Con-12 gress under paragraph (1) and subsequently as 13 needed until technology preventing the emission of, 14 capturing, transporting, permanently storing or se-15 questering, and putting to beneficial use carbon di-16 oxide is available to the commercial marketplace, the 17 Comptroller General shall conduct a review of the 18 report described in paragraph (1) in accordance with 19 subsection (c) of this section.
- 20 (b) Department of Energy Report Require-21 ments.—The Department of Energy shall include in the 22 report—
- 23 (1) a detailed description of the existing pro-24 grams, including each major program area, that con-

1	ducts or supports research, development, demonstra-
2	tion, and deployment of technology—
3	(A) to prevent the emission of carbon diox-
4	ide or capture of carbon dioxide from sources,
5	including fossil fuel-based power plants;
6	(B) to transport carbon dioxide;
7	(C) to store or sequester captured carbon
8	dioxide permanently; or
9	(D) to put captured carbon dioxide to ben-
10	eficial use;
11	(2) an assessment, based upon government lab-
12	oratory research experience, available industry re-
13	search experience, and such other data and informa-
14	tion as the Department of Energy deems useful and
15	appropriate, to determine whether each major pro-
16	gram area and principal projects within these areas
17	are designed to, and will, advance fundamental
18	knowledge or achieve significant technical advance-
19	ment and materially improve the technology base to
20	effectively address the prevention of carbon dioxide
21	emissions or capture of carbon dioxide or the trans-
22	port, permanent storage, or beneficial use of cap-
23	tured carbon dioxide; and
24	(3) an assessment of the Department of Ener-
25	gy's estimated time frame and costs necessary to

- reasonably conclude that technology will be available to the commercial marketplace.
- 3 (c) Government Accountability Office Review
- 4 Requirements.—The Government Accountability Office
- 5 shall include in its review—

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- 6 (1) an analysis of the Department of Energy's 7 estimated time frames and costs as reported pursu-8 ant to subsection (b)(3) of this section;
 - (2) any recommendations that the Comptroller General deems appropriate and useful to improve the likelihood of achieving technological advancements to mitigate carbon dioxide emissions or to expedite the availability of carbon capture and sequestration technology for the commercial marketplace;
 - (3) an assessment of any legal or regulatory impediment by any Federal agency or department that has arisen in relation to the deployment of carbon capture and storage technology, including any delays in the permitting of such technology or the construction or operation of any such facility; and
- 21 (4) any other analyses the Government Ac-22 countability Office deems necessary or appropriate.
- 23 (d) BUDGET REQUEST REPORT.—Beginning with the 24 budget request for fiscal year 2012 and for each suc-25 ceeding fiscal year through 2026, the President shall in-

1	clude in his budget request for the Department of Ener-
2	gy's Fossil Energy Program a report that—
3	(1) assesses the Department's progress in im-
4	plementing the recommendations of the Government
5	Accountability Office and compares the estimated
6	costs of completing implementation of these rec
7	ommendations to the requested budget levels; and
8	(2) an assessment of the progress made in the
9	preceding fiscal year toward achieving the goals of
10	the program for which funding is requested.
11	TITLE II—CARBON CAPTURE
12	AND SEQUESTRATION
13	PROJECTS
14	SUBTITLE A—CARBON CAPTURE
15	AND SEQUESTRATION EARLY
16	AND EFFECTIVE DEPLOY-
17	MENT FUNDING ACT OF 2010
18	SECTION 201. SHORT TITLE.
19	(a) Short Title.—This subtitle may be cited as the
20	"Carbon Capture and Sequestration Early and Effective
21	Deployment Fund Act of 2010" or the "CC SEED FUND
22	ACT".
23	SEC. 202. DEFINITIONS.
24	(a) In General.—In this subtitle:

- 1 (1) CARBON CAPTURE.—The term "carbon capture" has the meaning given the term in section 963(a) of the Energy Policy Act of 2005 (42 U.S.C. 16293(a)).
- 5 (2) CARBON SEQUESTRATION.—The term "car-6 bon sequestration" has the meaning given the term 7 in section 963(a) of the Energy Policy Act of 2005 8 (42 U.S.C. 16293(a)).
 - (3) COUNCIL.—The term "Council" means the Carbon Capture and Sequestration Program Partnership Council established under section 204(a).
 - (4) ELECTRIC CONSUMER.—The term "electric consumer" has the meaning given that term in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).
 - (5) ELECTRIC UTILITY.—The term "electric utility" has the meaning given the term in section 3 of the Federal Power Act (16 U.S.C. 796).
 - (6) Fossil fuel-based electricity' means electricity that is produced, in whole or in part, from a fossil fuel.
- 23 (7) Fossil fuel.—The term "fossil fuel" 24 means coal, petroleum, or natural gas, or any deriv-25 ative of coal, petroleum, or natural gas.

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- 1 (8) Institution of Higher Education.—The 2 term "institution of higher education" has the 3 meaning given the term in section 101(a) of the 4 Higher Education Act of 1965 (20 U.S.C. 1001(a)).
- 5 (9) NATIONAL LABORATORY.—The term "Na-6 tional Laboratory" has the meaning given the term 7 in section 2 of the Energy Policy Act of 2005 (42 8 U.S.C. 15801).
 - (10) PROGRAM DIRECTOR.—The term "Program Director" means the Program Director of the special funding program appointed under section 204(g).
 - (11) SECRETARY.—The term "Secretary" means the Secretary of Energy.
 - (12) SPECIAL FUNDING PROGRAM.—The term "special funding program" means the special funding program for development and deployment of carbon capture, sequestration, and conversion technologies established in accordance with section 203.
 - (13) STATE REGULATORY AUTHORITY.—The term "State regulatory authority" has the meaning given the term in section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602).
- 24 (14) UNITED STATES.—The term "United States" means the States of the United States, the

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1	District of Columbia, and the territories and posses-
2	sions of the United States, including the territorial
3	waters of the United States and the exclusive eco-
4	nomic zone.
5	(b) Modification of Definitions Incorporated
6	BY REFERENCE.—Section 963 of the Energy Policy Act
7	of 2005 (42 U.S.C. 16293) is amended—
8	(1) by redesignating subsections (a) through (d)
9	as subsections (b) through (e), respectively;
10	(2) by inserting before subsection (b) (as so re-
11	designated) the following:
12	"(a) Definitions.—In this section:
13	"(1) CARBON CAPTURE.—The term 'carbon
14	capture' means the process of capturing anthropo-
15	genic carbon dioxide from a stationary source or car-
16	bon dioxide in the ambient air.
17	"(2) CARBON SEQUESTRATION.—The term 'car-
18	bon sequestration' means the act of storing carbon
19	dioxide through physical, chemical, or biological
20	processes that can prevent the carbon dioxide from
21	reaching the atmosphere.";
22	(3) in subsection (b) (as so redesignated), by
23	striking "In General" and inserting "Program"; and

(4) in subsection (c) (as so redesignated), by
striking "subsection (a)" and inserting "subsection
(b)".
SEC. 203. SPECIAL FUNDING PROGRAM FOR DEVELOPMENT
AND DEPLOYMENT OF CARBON CAPTURE, SE-
QUESTRATION, AND CONVERSION TECH-
NOLOGIES.
(a) Views of State Regulatory Authorities.—
(1) In general.—Not later than 180 days
after the date of enactment of this Act, a State reg-
ulatory authority shall notify the Secretary in writ-
ing of the views of the State regulatory authority on
the creation of the special funding program.
(2) Notice of timeline.—As soon as prac-
ticable, but no later than 30 days after the date of
enactment of this Act, the Secretary shall notify
each State regulatory authority of the need to sub-
mit its views to the Secretary under paragraph (1)
within 180 days after the date of enactment of this
Act.
(b) Establishment.—The Secretary shall establish
the special funding program within one year after the date
of enactment of this Act unless the State regulatory au-
thorities of at least 22 States (treating the District of Co-

25 lumbia and Puerto Rico as States for such purpose) sub-

mit written notices of disapproval by the deadline estab-2 lished under subsection (a). 3 (c) TERMINATION.— 4 (1) Assessments.—The authority of the Sec-5 retary to collect assessments shall expire on the date 6 that is 10 years after the date of the establishment 7 of the special funding program. 8 (2) AWARDS.—The authority of the Secretary 9 to make funding awards under this subtitle shall ex-10 pire on the date that is 15 years after the date of 11 the establishment of the special funding program. 12 (d) Annual Report.—Not later than February 1 of 13 each year, the Secretary shall publish and submit to Con-14 gress and each State regulatory authority a report that— 15 (1) includes an identification and description of 16 all programs and projects undertaken under the spe-17 cial funding program during the previous fiscal year; 18 and 19 (2) describes the allocation or planned alloca-20 tion of resources of the special funding program for 21 each program and project in the current and subse-

quent fiscal year.

1	SEC. 204. CARBON CAPTURE AND SEQUESTRATION PRO-
2	GRAM PARTNERSHIP COUNCIL.
3	(a) Establishment.—The Secretary shall establish,
4	and appoint the members of, a Carbon Capture and Se-
5	questration Program Partnership Council to carry out du-
6	ties described in subsection (f).
7	(b) Voting Membership.—
8	(1) Total voting membership; quorum.—
9	The Council shall be composed of not more than 15
10	voting members. A majority of the voting members
11	shall constitute a quorum for official action of the
12	Council.
13	(2) MINIMUM REPRESENTATION.—The voting
14	membership of the Council shall include at least 1
15	representative of each of the following:
16	(A) Investor-owned utilities.
17	(B) Utilities owned by a State or unit of
18	local government.
19	(C) Rural electric cooperatives.
20	(D) Fossil fuel producers.
21	(E) Nonprofit organizations.
22	(F) Independent generators or wholesale
23	power providers.
24	(G) Consumer groups.
25	(H) Employee organizations (as defined in
26	section 3(4) of the Employee Retirement In-

1	come Security Act of 1974 (29 U.S.C
2	1002(4))).
3	(3) Representation of electric utili-
4	TIES.—A majority of the voting membership of the
5	Council shall be representatives of electric utilities
6	selling fossil fuel-based electricity to electric con-
7	sumers subject to assessment under section 206.
8	(4) Nominations.—The Secretary shall ap-
9	point the Council members representing entities de-
10	scribed in subparagraphs (A), (B), (C), and (F) of
11	paragraph (2) from slates of nominees, containing at
12	least 2 candidates for each vacancy to be filled, sub-
13	mitted by—
14	(A) the Edison Electric Institute, on behalf
15	of investor-owned utilities;
16	(B) the American Public Power Associa-
17	tion, on behalf of utilities owned by a State
18	agency or unit of local government;
19	(C) the National Rural Electric Coopera-
20	tive Association, on behalf of rural electric co-
21	operatives; and
22	(D) the Electric Power Supply Association
23	on behalf of independent generators or whole-
24	sale power providers.

1	(5) Recusal.—A voting member of the Council
2	may not participate in the review or approval of an
3	application from an entity with which the voting
4	member is affiliated.
5	(c) Nonvoting Membership.—The Secretary shall
6	appoint to the Council as nonvoting members—
7	(1) the Under Secretary for Science;
8	(2) the Assistant Secretary with responsibility
9	for research and development of fossil fuels;
10	(3) 3 representatives of State regulatory au-
11	thorities, chosen to represent each different trans-
12	mission interconnection, submitted by the National
13	Association of Regulatory Utility Commissioners;
14	and
15	(4) such additional officers and employees of
16	the Federal Government as the Secretary determines
17	are necessary for the Council to carry out the func-
18	tions of the Council effectively.
19	(d) Terms.—
20	(1) In general.—Except as otherwise pro-
21	vided in this paragraph, a voting member of the
22	Council—
23	(A) shall serve a term of 4 years; and
24	(B) may serve not more than 2 full con-
25	secutive terms

1	(2) UNEXPIRED TERMS.—A member who fills
2	the unexpired term of a voting member may serve
3	not more than a total of 8 consecutive years.
4	(3) Reappointment of former voting mem-
5	BERS.—A former voting member of the Council may
6	be reappointed if the member has not been a mem-
7	ber of the Council for a period of at least 2 years.
8	(4) Initial appointment.—The Secretary
9	shall make initial appointments of voting members
10	of the Council for terms of 1, 2, 3, and 4 years,
11	staggered to provide for the selection of 3 members
12	each year, as determined by the Secretary.
13	(5) Vacancies.—A vacancy on the Council—
14	(A) shall not affect the powers of the
15	Council; and
16	(B) shall be filled in the same manner as
17	the original appointment was made.
18	(e) Personnel Matters.—
19	(1) Compensation.—
20	(A) Non-federal employees.—A mem-
21	ber of the Council who is not an officer or em-
22	ployee of the Federal Government may be com-
23	pensated at a rate equal to the daily equivalent
24	of the annual rate of basic pay prescribed for

level IV of the Executive Schedule under section

- 5315 of title 5, United States Code, for each day (including travel time) during which the member is engaged in the performance of the duties of the Council.
 - (B) FEDERAL EMPLOYEES.—A member of the Council who is an officer or employee of the Federal Government shall serve without compensation in addition to the compensation received for the services of the member as an officer or employee of the Federal Government.
 - (2) Travel expenses.—A member of the Council shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the Council.
 - (3) CHAIR.—The Secretary shall appoint a voting member of the Council to serve as the Chair of the Council.
 - (4) EXECUTIVE SECRETARY.—The Secretary shall appoint an Executive Secretary in the Department of Energy to assist the Council in the conduct of the duties of the Council.

(f) Council D	OUTIES.—The	Council	shall—
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- (1) advise, assist, consult with, and make recommendations to the Secretary and the Program Director on matters related to the activities carried out by and through the special funding program;
- (2)(A) review applications for grants, contracts, cooperative agreements, and other transactions for which the approval of the Council is required under section 5(b); and
- (B) vote on whether to recommend for approval the applications;
- (3) review and make recommendations on any intellectual property policies required to advance the purposes of the special funding program and to encourage individual ingenuity and innovation, and ensure that inventors, whose contributions to the development of clean coal technology are not subject to the protections afforded by section 14 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3710c), are provided protection of their intellectual property rights that is not less than that afforded to inventors provided protection under section 14 of that Act;
- (4) collect information on projects being carried out by other programs to advance the development

1	and deployment of technologies for carbon capture,
2	sequestration, and conversion;
3	(5)(A) approve an annual overall plan for the
4	special funding program and projects to be carried
5	out under the special funding program; and
6	(B) submit to Congress, the Secretary, and
7	each State regulatory authority a copy of the plan;
8	and
9	(6) meet at least 3 times each year, at the call
10	of the Chair or on the request of the Program Direc-
11	tor, at a location subject to the approval of the Pro-
12	gram Director.
13	(g) Program Director and Senior Program
14	Managers.—
15	(1) Appointment.—The Secretary, in con-
16	sultation with the Council, shall appoint a Program
17	Director for the special funding program, who
18	shall—
19	(A) have a background and qualifications
20	especially appropriate to managing the special
21	funding program; and
22	(B) report directly to the Secretary.
23	(2) Compensation.—The rate of pay for the
24	Program Director shall not exceed the rate payable

1	for level V of the Executive Schedule under section
2	5316 of title 5, United States Code.
3	(3) Senior Program Managers.—
4	(A) In general.—Notwithstanding sec-
5	tions 3304 and 3309 through 3318 of title 5,
6	United States Code, the Program Director may
7	recruit and directly appoint up to 5 highly
8	qualified scientists, engineers, or critical tech-
9	nical personnel into the competitive service, to
10	help manage the special funding program.
11	(B) Exception.—The authority granted
12	by subparagraph (A) shall not apply to posi-
13	tions in the excepted service or the Senior Exec-
14	utive Service.
15	(C) REQUIREMENTS.—In exercising the
16	authority granted by subparagraph (A), the
17	Secretary shall ensure that any action taken by
18	the Secretary—
19	(i) is consistent with the merit prin-
20	ciples of section 2301 of title 5, United
21	States Code; and
22	(ii) complies with the public notice re-
23	quirements of section 3327 of title 5,
24	United States Code.
25	(h) Technical Advisory Committee —

1	(1) In General.—The Secretary, acting
2	through the Program Director, and in consultation
3	with the Council, shall appoint a technical advisory
4	committee to provide independent scientific review of
5	applications for grants, contracts, cooperative agree-
6	ments, and other transactions to be funded under
7	the special funding program.
8	(2) Membership.—The technical advisory
9	committee shall be composed of not less than 7
10	members appointed from among—
11	(A) institutions of higher education;
12	(B) National Laboratories;
13	(C) independent research institutions;
14	(D) the National Energy Technology Lab-
15	oratory; and
16	(E) other qualified institutions;
17	(3) Conflicts of interest.—Members of the
18	technical advisory committee may not be affiliated
19	with, or employed by, any organization represented
20	by voting members of the Council.
21	(4) Duties.—
22	(A) Peer review.—The technical advi-
23	sory committee shall provide independent as-
24	sessments and technical evaluations, and make
25	recommendations to the Council, on all applica-

1	tions for funding under the special funding pro-
2	gram.
3	(B) Programmatic assessments.—
4	(i) In general.—The technical advi-
5	sory committee may provide an inde-
6	pendent review of other technical matters
7	relating to the special funding program, in-
8	cluding—
9	(I) approaches to prioritizing
10	technologies;
11	(II) appropriateness of engineer-
12	ing techniques;
13	(III) monitoring and verification
14	technologies for sequestration;
15	(IV) geological site selection; and
16	(V) cost control measures for
17	projects.
18	(ii) RECOMMENDATIONS.—The tech-
19	nical advisory committee may make rec-
20	ommendations to the Secretary concerning
21	the types of investments, scientific re-
22	search, or engineering practices that would
23	best further the purposes of this subtitle.
24	(C) Public availability.—Except for in-
25	formation exempt from disclosure under para-

graphs (4) and (6) of section 552(b) of title 5,
United States Code, all reports and evaluations
made by the technical advisory committee shall
be made available to the public when the reports and evaluations are received by the Council.

(5) Travel expenses.—A member of the technical advisory committee shall be allowed travel expenses, including per diem in lieu of subsistence, at rates authorized for an employee of an agency under subchapter I of chapter 57 of title 5, United States Code, while away from the home or regular place of business of the member in the performance of the duties of the committee.

15 SEC. 205. FUNCTIONS AND ADMINISTRATION OF THE SPE-

16 CIAL FUNDING PROGRAM.

17 (a) In General.—The special funding program shall support projects to accelerate the commercial availability 19 of carbon capture and sequestration technologies and 20 methods, including technologies that capture and seques-21 ter, or capture and convert, carbon dioxide. In making 22 awards under the program, the Program Director shall 23 give priority to projects that include cost sharing, although 24 cost sharing is not mandatory.

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1	(b) Project Approval.—The Program Director
2	shall make awards for grants, contracts, cooperative
3	agreements, and other transactions under this subtitle
4	only if the award is—
5	(1) recommended to the Council by the tech-
6	nical advisory committee established under section
7	204(h), after scientific and technical peer review;
8	(2) approved by the voting members of the
9	Council;
10	(3) for a project to be carried out in the United
11	States; and
12	(4) prioritized in regions of the country with a
13	high probability of carbon capture and sequestration
14	development and deployment potential.
15	(c) Specific Purposes.—In making awards, the
16	Program Director shall ensure, to the maximum extent
17	practicable, that grants, contracts, cooperative agree-
18	ments, and other transactions funded under the special
19	funding program support demonstrations of carbon cap-
20	ture and sequestration technology projects that—
21	(1) are capable of advancing the technologies to
22	commercial readiness;
23	(2) encompass each of the different coal types
24	and other fossil fuel varieties;
25	(3) are geographically diverse;

1	(4) involve diverse sequestration media;
2	(5) employ capture and sequestration, or cap-
3	ture and conversion, technologies potentially suitable
4	for new or retrofit applications; and
5	(6) result in a capture of emissions from the
6	generation of at least 10 gigawatts.
7	(d) Eligible Entities.—Entities eligible for fund-
8	ing under this subtitle include—
9	(1) electric utilities selling fossil fuel-based elec-
10	tricity;
11	(2) institutions of higher education;
12	(3) National Laboratories;
13	(4) Federal research agencies;
14	(5) State research agencies;
15	(6) nonprofit organizations; and
16	(7) consortiums of 2 or more entities described
17	in paragraphs (1) through (6).
18	(e) Purchase of Carbon Dioxide.—A grant, con-
19	tract, cooperative agreement, or other transaction under
20	this subtitle may be used—
21	(1) in the case of established projects that are
22	sequestering carbon dioxide emissions, to purchase
23	carbon dioxide if necessary to conduct tests of car-
24	bon sequestration sites; or

1	(2) for other purposes consistent with this sub-
2	title.
3	(f) Organization of Funding Into Tranches.—
4	(1) IN GENERAL.—The Program Director, with
5	the approval of the Council and the Secretary, may
6	divide available funds into a series of tranches, each
7	supporting the deployment of a specified quantity of
8	electric generating capacity using carbon capture, se-
9	questration, or conversion technologies.
10	(2) Form of funding.—If the Program Direc-
11	tor, the Council, and the Secretary agree to dis-
12	tribute funds by tranche under this subsection, the
13	Program Director shall distribute funds to eligible
14	projects through grants, contracts, cooperative
15	agreements, and other transactions under this sub-
16	title in a manner that—
17	(A) provides higher funding for projects
18	that are designed to achieve higher levels of
19	capture and sequestration or capture and con-
20	version;
21	(B) takes into account the projected cost
22	of electricity to capture carbon dioxide emis-
23	sions from the project;
24	(C) decreases the funding available for
25	projects in successive tranches: and

1 (D) defrays the reasonable incremental
2 capital and operating costs associated with im3 plementation of the carbon capture and seques4 tration or carbon capture and conversion tech5 nologies.

(g) WAGE RATE ASSURANCES.—

- (1) In General.—The Program Director shall require recipients of awards under this subtitle to provide assurances that all laborers and mechanics employed by contractors and subcontractors in the construction, repair, or alteration of new or existing facilities performed in order to carry out a development or deployment activity authorized under this subtitle 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 subchapter IV of chapter 31 of title 40, United States Code.
- (2) AUTHORITY AND FUNCTIONS.—With respect to the labor standards in this subsection, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 Fed. Reg. 3176; 5 U.S.C. Appendix) and section 3145 of title 40, United States Code.

(h) RELATION TO EXISTING AUTHORITIES.—

Projects funded under this subtitle to inject carbon dioxide
into geological formations shall be carried out in accord-
ance with this subtitle and section 963 of the Energy Pol-
icy Act of 2005 (42 U.S.C. 16293) and related provisions
of that Act.
(i) Restrictions on Funding.—
(1) No small-scale projects.—A pilot-scale
project, or similar small-scale project, under 100
megawatts, shall not be eligible for support under
the special funding program.
(2) Dedication of funds.—Except as pro-
vided in subsection (j), the special funding program
shall use all funds derived from assessments under
section 6 to fund grants, contracts, cooperative
agreements, and other transactions under this sub-
title.
(j) Administrative Expenses.—Not more than 5
percent of the funds collected for any fiscal year under
section 6 may be used for the administrative expenses of
carrying out the special funding program.
SEC. 206. ASSESSMENTS AND FUNDING.
(a) Amount.—
(1) In general.—For each fiscal year fol-
lowing the establishment of the special funding pro-

1	gram, the Secretary shall collect an assessment on
2	electric utilities for all fossil fuel-based electricity
3	sold to electric consumers, as determined under sec-
4	tion 208.
5	(2) Fuel type rate.—The assessments de-
6	scribed in paragraph (1) shall—
7	(A) reflect the relative carbon dioxide emis-
8	sion rates of different fossil fuel-based elec-
9	tricity; and
10	(B) initially shall be not less than the fol-
11	lowing amounts for coal, natural gas, and oil:
	Fuel type rate of assessment per kilowatt hour Coal
12	(3) Adjustments.—The Secretary may adjust
13	the amount of assessments on fossil fuel-based elec-
14	tricity to reflect changes in the expected quantities
15	of the electricity from different fuel types so that the
16	assessments generate not less than $\$2,000,000,000$
17	and not more than $\$2,100,000,000$ for each fiscal
18	year.
19	(b) Treatment of Assessments.—
20	(1) General Rule.—Notwithstanding section
21	3302 of title 31, United States Code, all amounts
22	collected by the Secretary under this section shall—

1	(A) be credited as offsetting collections to
2	carry out activities authorized under section
3	205;
4	(B) be available for expenditure only to
5	pay the costs of carrying out the activities au-
6	thorized under section 205;
7	(C) be available only to the extent provided
8	for in advance in an appropriations Act; and
9	(D) remain available until expended.
10	(2) Exception.—Notwithstanding paragraph
11	(1), the Secretary shall determine by April 1 of each
12	fiscal year whether an appropriations Act has appro-
13	priated the total amount of actual fees collected in
14	advance of that fiscal year by the Secretary under
15	this section. If the amounts specified under this
16	paragraph for that fiscal year have not been appro-
17	priated by such date for expenditure to carry out ac-
18	tivities under section 205, then such amounts shall
19	be immediately available for such expenditure by the
20	Board without fiscal year limitations and without
21	further appropriations.
22	(c) FEE TITLE.—The Secretary may vest fee title or
23	other property interests acquired under projects conducted

24 under this subtitle in any entity, including the United

25 States.

- 1 (d) Data Protection.—For a period not exceeding
- 2 5 years after completion of the operations phase of a
- 3 grant, contract, cooperative agreement, or other trans-
- 4 action under this subtitle the Secretary may provide ap-
- 5 propriate protections (including exemptions from sub-
- 6 chapter II of chapter 5 of title 5, United States Code)
- 7 against the dissemination of information that—
- 8 (1) results from demonstration activities carried
- 9 out under this subtitle; and
- 10 (2) would be a trade secret or commercial or fi-
- 11 nancial information that is privileged or confidential
- if the information had been obtained from and first
- produced by a non-Federal party participating in the
- 14 project.
- 15 (e) REVERSION OF UNUSED FUNDS.—Effective be-
- 16 ginning on the date that is 7 years after the establishment
- 17 of the special funding program, if the Secretary, acting
- 18 through the Program Director, does not obligate at least
- 19 75 percent of the available proceeds of the assessed fees
- 20 for any fiscal year due to an absence of qualified projects
- 21 or similar circumstances, the Secretary, without further
- 22 appropriation, shall reimburse the remaining unobligated
- 23 balance of the fees, less administrative and other expenses
- 24 authorized by this subtitle, to the electric utilities on which

- the fees were assessed, in proportion to the collected as-2 sessments of the electric utilities. 3 **SEC. 207. ERCOT.** 4 (a) Definitions.—In this section: (1) ERCOT.—The term "ERCOT" means the 5 6 Electric Reliability Council of Texas. 7 (2) Load-serving entity.—The term "load-8 serving entity" has the meaning given the term in 9 ERCOT Protocols in effect on the date of enactment 10 of this Act. 11 SCHEDULING ENTITY.—The QUALIFIED term "qualified scheduling entity" has the meaning 12 13 given the term in ERCOT Protocols in effect on the 14 date of enactment of this Act. 15 (4) Renewable energy credit.—The term "renewable energy credit" has the meaning given the 16 17 term by the Public Utility Commission of Texas pur-18 suant to section 39.904(b) of the State of Texas's 19 Public Utility Regulatory Act of 1999 as in effect on 20 the date of enactment of this Act. 21 ASSESSMENT, COLLECTION, Remit-(b) AND 22 TANCE.—
- 23 (1) IN GENERAL.—Notwithstanding any other 24 provision of this subtitle, within ERCOT, the assess-25 ment required under section 206 shall be—

1	(A) levied directly on qualified scheduling
2	entities, or successor entities of the qualified
3	scheduling entities;
4	(B) charged in an amount that is con-
5	sistent with other charges imposed on qualified
6	scheduling entities as a fee on energy used by
7	the load-serving entities; and
8	(C) collected and remitted by ERCOT to
9	the Secretary in the amounts and in the same
10	manner as described in section 205.
11	(2) Requirements.—The assessment amounts
12	referred to in paragraph (1) shall—
13	(A) be determined by the quantity and
14	types of fossil fuel-based electricity delivered di-
15	rectly to all electric consumers in the prior cal-
16	endar year beginning with the year ending im-
17	mediately prior to the beginning of the period
18	described in section 203(c); and
19	(B) take into account the number of re-
20	newable energy credits retired by the load-serv-
21	ing entities represented by a qualified sched-
22	uling entity within the prior calendar year.
23	(c) Administration Expenses.—Not more than 1
24	percent of the funds collected for any fiscal year by
25	ERCOT under this section may be used for the adminis-

1	trative expenses incurred in the determination, collection
2	and remittance of the assessments to the Secretary.
3	(d) Audit.—ERCOT shall submit to the Secretary
4	a copy of the annual audit of ERCOT relating to the ad-
5	ministration of this section.
6	SEC. 208. DETERMINATION OF FOSSIL FUEL-BASED ELEC
7	TRICITY DELIVERIES.
8	(a) FINDINGS.—Congress finds that—
9	(1) the assessments under section 206 are to be
10	collected based on the quantity of fossil fuel-based
11	electricity sold by each electric utility to electric con-
12	sumers;
13	(2) because many electric utilities purchase al
14	or part of the electricity needed by the electric con-
15	sumers of the utilities from other entities, it may not
16	be practicable to determine the precise fuel mix for
17	the power sold by each individual electric utility; and
18	(3) it may be necessary to use average data
19	often on a regional basis with reference to Regiona
20	Transmission Organization or North American Elec-
21	tric Reliability Corporation regions, to make the de-
22	terminations necessary for making the assessments
23	(b) Proposed Regulation.—
24	(1) In general.—The Secretary, in consulta-
25	tion with the Energy Information Administration

shall issue for notice and comment a proposed regulation to determine the level and type of fossil fuelbased electricity delivered to electric consumers by each electric utility in the United States during the most recent calendar year or other period deter-

mined by the Secretary to be most appropriate.

- 7 (2) Balancing.—The proposed regulation shall 8 balance the need to be efficient, reasonably precise 9 and timely, taking into account the nature and cost 10 of data currently available and the nature of mar-11 kets and regulations in effect in various regions of
 - (3) VARYING METHODOLOGIES.—The Secretary may apply different methodologies in different regions of the United States if appropriate to obtain the best balance of factors described in paragraph (2).

(c) Final Regulation.—

the United States.

(1) IN GENERAL.—Not later than 180 days after the date of enactment of this Act, and after opportunity for comment, the Secretary shall promulgate a final regulation under this section for determining the level and type of fossil fuel-based electricity delivered to electric consumers by each elec-

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1	tric utility in the United States during the appro-
2	priate period, as determined by the Secretary.
3	(2) New data sources.—In promulgating the
4	final regulation, the Secretary may—
5	(A) consider opportunities and costs to de-
6	velop new data sources in the future; and
7	(B) issue recommendations for the Energy
8	Information Administration or other agencies to
9	collect the data.
10	(3) UPDATES.—After notice and opportunity
11	for comment, the Secretary may, by regulation, up-
12	date and modify the methodology for making deter-
13	minations under this section.
14	(d) Annual Determinations.—
15	(1) In general.—In accordance with the final
16	regulation promulgated under subsection (c), the
17	Secretary shall—
18	(A) make annual determinations of the
19	quantities and types for each electric utility
20	and
21	(B) publish the determinations in the Fed-
22	eral Register.
23	(2) Use.—Determinations described in para-
24	graph (1) shall be used—

1	(A) to conduct the referendum under sec-	
2	tion 203(a); and	
3	(B) by the Secretary in applying any as-	
4	sessment under this subtitle.	
5	(e) Rehearing and Judicial Review.—	
6	(1) In general.—The owner or operator of	
7	any electric utility that believes that the Secretary	
8	has misapplied the methodology in the final regula-	
9	tion in determining the quantity and types of fossil	
10	fuel-based electricity delivered by the electric utility	
11	may seek a rehearing of the determination not later	
12	than 30 days after publication of the determination	
13	in the Federal Register.	
14	(2) Deadline.—Not later than 30 days after	
15	a rehearing petition is formally requested, the Sec-	
16	retary shall rule on the rehearing petition.	
17	(3) Judicial Review.—A determination of the	
18	Secretary under paragraph (2) shall be final and	
19	subject to judicial review in the United States Court	
20	of Appeals for the District of Columbia Circuit.	
21	SEC. 209. COMPLIANCE WITH ASSESSMENTS.	
22	(a) In General.—The Secretary may bring an ac-	
23	tion in the appropriate court of the United States to com-	
24	pel compliance with an assessment levied by the Secretary	
25	under this subtitle.	

1	(b) Payment.—A successful action for compliance
2	under this section may require payment by the defendant
3	of the costs incurred by the Secretary in bringing the ac-
4	tion.
5	SEC. 210. MIDCOURSE REVIEW.
6	Not later than 5 years after the establishment of the
7	special funding program, the Comptroller General of the
8	United States shall submit to Congress a report that—
9	(1) evaluates the activities of the special fund-
10	ing program, including—
11	(A) project selection and methods of dis-
12	bursement of assessed fees;
13	(B) impacts on the prospects for commer-
14	cialization of carbon capture and sequestration
15	technologies; and
16	(C) the extent to which assessed fees sup-
17	port the qualified projects received by the Sec-
18	retary; and
19	(2) makes such recommendations as the Comp-
20	troller General of the United States considers to be
21	appropriate in each of those areas.
22	SEC. 211. RECOVERY OF COSTS.
23	(a) In General.—An electric utility, the trans-
24	mission, delivery, or sales of electric energy of which are
25	subject to any form of rate regulation, may not be denied

1	an opportunity to recover the full amount of the prudently
2	incurred costs associated with complying with this subtitle,
3	consistent with applicable State or Federal law.
4	(b) Ratepayer Rebates.—Regulatory authorities
5	that approve cost recovery pursuant to subsection (a) may
6	order rebates to ratepayers to the extent that electric utili-
7	ties selling fossil fuel-based electricity to electric con-
8	sumers are reimbursed undedicated or unassigned bal-
9	ances in accordance with section 206(c).
10	SUBTITLE B—SEQUESTRATION
11	TAX CREDIT; CAPACITY IN-
	CENTIVES
12	CENTIVES
12 13	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-
13	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-
13 14	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND- MENTS.
13 14 15	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND- MENTS. (a) IN GENERAL.—Section 45Q of the Internal Rev-
13 14 15 16	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-MENTS. (a) IN GENERAL.—Section 45Q of the Internal Revenue Code of 1986 is amended—
13 14 15 16 17	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-MENTS. (a) IN GENERAL.—Section 45Q of the Internal Revenue Code of 1986 is amended— (1) by inserting "or converted to a stable form
13 14 15 16 17	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-MENTS. (a) IN GENERAL.—Section 45Q of the Internal Revenue Code of 1986 is amended— (1) by inserting "or converted to a stable form in which it is securely and permanently sequestered"
13 14 15 16 17 18	SEC. 251. CARBON SEQUESTRATION TAX CREDIT AMEND-MENTS. (a) IN GENERAL.—Section 45Q of the Internal Revenue Code of 1986 is amended— (1) by inserting "or converted to a stable form in which it is securely and permanently sequestered" after "secure geological storage" in subparagraph
13 14 15 16 17 18 19 20	MENTS. (a) In General.—Section 45Q of the Internal Revenue Code of 1986 is amended— (1) by inserting "or converted to a stable form in which it is securely and permanently sequestered" after "secure geological storage" in subparagraph (B) of section 45Q(a)(1);
13 14 15 16 17 18 19 20 21	MENTS. (a) In General.—Section 45Q of the Internal Revenue Code of 1986 is amended— (1) by inserting "or converted to a stable form in which it is securely and permanently sequestered" after "secure geological storage" in subparagraph (B) of section 45Q(a)(1); (2) by striking subsection (a)(2) an inserting

1	used as a tertiary injectant in a qualified enhanced
2	oil or natural gas recovery project, and
3	"(A) disposed of in secure geologic storage,
4	or
5	"(B) converted to a stable form to enable
6	permanent sequestration, including the bene-
7	ficial use of such converted carbon dioxide.";
8	(3) by striking the words "by the taxpayer"
9	each place they appear in subsection (a);
10	(4) by striking "would otherwise" in subsection
11	(b)(1)(A) and inserting "would, but for the capture
12	and use or sequestration,";
13	(5) by striking paragraph (1) of subsection (c)
14	and redesignating paragraphs (2) and (3) as para-
15	graphs (1) and (2), respectively;
16	(6) by striking paragraph (5) of subsection (d)
17	and inserting the following:
18	"(5) Credit attributable to taxpayer.—
19	Any credit under this section shall be attributable to
20	the person that captures the qualified carbon diox-
21	ide, except to the extent provided in regulations pre-
22	scribed by the Secretary.";
23	(7) by adding at the end of subsection (d) the
24	following:

1	"(8) Placed in Service.—Carbon capture
2	equipment is placed in service on the date qualified
3	carbon dioxide is first captured at a qualified facility
4	and either—
5	"(A) injected in secure geologic storage or
6	converted to a stable form, or
7	"(B) used as an injectant in a qualified en-
8	hanced hydrocarbon recovery project or con-
9	verted to a stable form.
10	"(9) Transferability of credit.—The cred-
11	it under this section may be transferred to any other
12	person by the person to which the credit is attrib-
13	utable.";
14	(8) by striking subsection (e) and inserting the
15	following:
16	"(e) APPLICATION OF SECTION.—The credit under
17	this section shall apply with respect to qualified carbon
18	dioxide captured at a qualified facility at which carbon
19	capture equipment is placed in service prior to January
20	1, 2019. The taxpayer may claim the credit for a 10-year
21	period commencing with the date the carbon capture
22	equipment is placed in service."; and
23	(9) by inserting "or conversion to a stable
24	form" after "geological storage" in subsection
25	(d)(2).

1	(b) Effective Date.—The amendments made by
2	subsection (a) shall apply to carbon dioxide captured after
3	the date of enactment of this Act.
4	SEC. 252. FEDERAL FINANCIAL INCENTIVES FOR ADDI-
5	TIONAL 10 GW OF CAPACITY.
6	(a) Additional Authorization.—Section 1704 of
7	the Energy Policy Act of 2005 (42 U.S.C. 16514) is
8	amended—
9	(1) by adding the following at the end of sub-
10	section (a): "In addition to other amounts made
11	available under this section, there are authorized
12	\$20,000,000,000 to be used only for guarantees
13	under this title for—
14	"(1) the construction of new commercial scale
15	electric generation units, or industrial facility units,
16	that are eligible units utilizing carbon capture and
17	sequestration technology;
18	"(2) the retrofit of existing commercial scale
19	electric generation units, or industrial facility units,
20	that are eligible units providing for carbon capture
21	and sequestration; and
22	"(3) the construction of carbon dioxide trans-
23	mission pipelines to transport carbon dioxide to se-
24	questration sites or to sites where such carbon diox-
25	ide will be used for hydrocarbon recovery."; and

1	(2) by adding at the end thereof the following:
2	"(c) Definitions.—In this section:
3	"(1) COMMERCIAL SCALE.—The term 'commer-
4	cial scale' means, with respect to an electric genera-
5	tion unit, that the unit is designed to generate and
6	sell electric power directly to consumers, or for re-
7	sale, with a carbon dioxide capture system having a
8	useful life of at least 15 years.
9	"(2) Permanent geologic storage site.—
10	The term 'permanent geologic storage site' means a
11	site that the Secretary determines is capable of stor-
12	ing carbon dioxide in saline or other deep geologic
13	storage structures.
14	"(3) ELIGIBLE UNIT.—The term 'eligible unit'
15	means an electric generation unit or industrial facil-
16	ity unit located in the United States that—
17	"(A) uses coal or petroleum coke for at
18	least 75 percent of the fuel used by the unit;
19	"(B) uses carbon capture technology to
20	treat at least—
21	"(i) 20 percent of the carbon dioxide
22	emissions of the unit; or
23	"(ii) an amount of carbon dioxide
24	emissions that is attributable to 200

1	megawatts of the total nameplate gener-
2	ating capacity of the unit;
3	"(C) captures at least 80 percent of the
4	carbon dioxide emissions from the treated emis-
5	sions of the unit;
6	"(D) transports such captured carbon di-
7	oxide to a permanent geologic storage site in
8	the United States or to a site on the North
9	American continent for use for hydrocarbon re-
10	covery;
11	"(E) provides for the permanent storage of
12	such carbon dioxide in such site; and
13	"(F) has been approved by the Secretary
14	as eligible under this subsection.
15	"(d) Eligible Units.—
16	"(1) CERTIFICATION.—No unit shall be an eli-
17	gible unit under subsection (c) unless the Secretary
18	has certified such unit as meeting the requirements
19	of such subsection (c) pursuant to a certification
20	process established by the Secretary by rule.
21	"(2) Limitation.—The Secretary may certify
22	eligible units under this subsection which total in the
23	aggregate no more than 10 gigawatts of treated gen-
24	erating capacity, of which not more than the equiva-
25	lent of 5 gigawatts of capacity may be for industrial

- units. For purposes of determining equivalency under this subsection, an industrial unit with uncontrolled carbon dioxide emissions equal to the uncontrolled carbon dioxide emissions of a 500 megawatt electric generation unit shall be treated as having installed capacity equivalent to such 500 megawatt unit.".
- 8 (b) Tax Credits.—
- 9 (1) IN GENERAL.—Subpart E of part IV of 10 subchapter A of chapter 1 of the Internal Revenue 11 Code of 1986 is amended by adding at the end 12 thereof the following:
- 13 "SEC. 48E. PIONEER CCS FACILITIES.
- "(a) Additional Qualifying Advanced Coal Project Credit.—For purposes of section 46, the qualifying advanced coal project credit for any taxable year shall also include an additional amount equal to 30 percent of the incremental cost for carbon capture and sequestration systems for eligible units, determined as follows:
- "(1) For an eligible unit that is a new electric generation unit, the incremental costs shall be the amount by which the costs incurred by the taxpayer for the unit exceed the costs of construction of a comparable supercritical pulverized coal unit without

carbon capture and sequestration technology. To establish incremental costs, the taxpayer shall obtain a certified report of a qualified independent engineer estimating the differential construction cost between the eligible unit and a comparably-sized supercritical pulverized coal unit without carbon capture and sequestration. The independent engineer shall utilize cost estimates for supercritical pulverized coal units available from Federal agencies, academia and/or the private sector, appropriately adjusted for size, fuel source and location. An engineering design of a hypothetical supercritical pulverized coal unit shall not be required to establish the incremental costs.

"(2) For an eligible unit that is a new industrial unit, the incremental costs shall be the amount by which the costs incurred by the taxpayer for the unit exceed the costs of construction of a comparable industrial unit without carbon capture and sequestration.

"(3) For an eligible unit that retrofits a carbon capture, transportation, and sequestration system on an existing generation or industrial unit, the incremental cost shall be the construction costs incurred by the taxpayer for the carbon capture and sequestration system.

1	"(b) Definitions.—For purposes of this section, the
2	term 'eligible unit' means an electric generation unit or
3	industrial facility unit located in the United States that—
4	"(A) uses coal or petroleum coke for at least 75
5	percent of the fuel used by the unit;
6	"(B) uses carbon capture technology to treat at
7	least—
8	"(i) 20 percent of the carbon dioxide emis-
9	sions of the unit; or
10	"(ii) an amount of carbon dioxide emis-
11	sions that is attributable to 200 megawatts of
12	the total nameplate generating capacity of the
13	unit;
14	"(C) captures at least 80 percent of the carbon
15	dioxide emissions from the treated emissions of the
16	unit;
17	"(D) transports such captured carbon dioxide
18	to a permanent geologic storage site in the United
19	States or to a site on the North American continent
20	for use for hydrocarbon recovery; and
21	"(E) provides for the permanent storage of
22	such carbon dioxide in such site.
23	"(c) Election.—No costs for which a credit has
24	been provided under section 48A or section 48B shall be
25	eligible for a credit under this section.".

1	(2) CLERICAL AMENDMENT.—The table of con-
2	tents for such subpart E is amended by adding at
3	the end thereof the following:
	"48E. Pioneer CCS facilities.".
4	(3) Effective Date.—The amendments made
5	by this subsection shall apply with respect to—
6	(A) new facilities placed in service after
7	December 31, 2010, and before January 1,
8	2025; and
9	(B) the retrofit of existing facilities that
10	commence operation with such retrofit after De-
11	cember 31, 2010, and before January 1, 2025.
12	TITLE III—62 GW EARLY ADOPT-
13	ER PROGRAM; SEQUESTRA-
13 14	ER PROGRAM; SEQUESTRATION BONDS
	,
14	TION BONDS
14 15 16	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS.
14 15 16	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of sub-
14 15 16 17	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of
14 15 16 17 18	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end thereof the fol-
14 15 16 17 18	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end thereof the following:
14 15 16 17 18 19 20	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end thereof the following: "SEC. 45S. CREDIT FOR EARLY ADOPTION OF CCS.
14 15 16 17 18 19 20 21	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) IN GENERAL.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end thereof the following: "SEC. 45S. CREDIT FOR EARLY ADOPTION OF CCS. "(a) EARLY ADOPTION CREDIT.—For purposes of
14 15 16 17 18 19 20 21	TION BONDS SEC. 301. TAX CREDIT FOR EARLY ADOPTION OF CCS. (a) In General.—Subpart D of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end thereof the following: "SEC. 45S. CREDIT FOR EARLY ADOPTION OF CCS. "(a) Early Adoption Credit.—For purposes of section 38, the carbon dioxide sequestration credit for any

1	viding for carbon capture and sequestration in secure geo-
2	logic storage, adjusted as provided in subsection (c).
3	"(b) Determination of Amount.—
4	"(1) 65 PERCENT CAPTURE RATE.—Except as
5	provided in paragraph (2) and adjusted in sub-
6	section (c), the amount of the credit under sub-
7	section (a) shall be \$67 per ton of carbon dioxide
8	captured and sequestered in the case of a certified
9	new or retrofit electric utility unit or a certified new
10	or retrofit industrial unit that—
11	"(A) is placed in service before January 1,
12	2025, and
13	"(B) captures and sequesters at least 65
14	percent of the carbon dioxide emissions in the
15	treated portion of the flue gas or fuel gas
16	stream.
17	"(2) Higher capture rate.—The amount of
18	credit provided under paragraph (1) shall be in-
19	creased by \$1.15 per ton for each percent of addi-
20	tional carbon dioxide emissions captured and seques-
21	tered above such 65 percent capture rate, up to a
22	maximum credit of \$96 per ton for a capture and
23	sequestration rate of 90 percent or more.
24	"(c) Adjustment for Later Commencement.—
25	The amount of the credit determined under subsection (b)

- 1 shall be reduced by \$1 per ton of carbon dioxide for each
- 2 year after the calendar year 2024 in which the carbon cap-
- 3 ture and sequestration equipment is placed in service.
- 4 "(d) Placed in Service.—For purposes of this sec-
- 5 tion, the term 'placed in service' with respect to a certified
- 6 new or retrofit electric utility unit or a certified new or
- 7 retrofit industrial unit is the date on which such unit first
- 8 captures and sequesters carbon dioxide in secure geologic
- 9 storage.
- 10 "(e) Certification of 62 GW.—No credit shall be
- 11 allowed under this section unless the electric utility unit
- 12 or industrial unit with respect to which a credit is applied
- 13 has been certified by the Secretary. Upon application of
- 14 any taxpayer for certification under this section, the Sec-
- 15 retary shall certify the unit in accordance with the certifi-
- 16 cation program under subsection (g).
- 17 "(f) Limitation.—The Secretary shall certify eligi-
- 18 ble new or retrofit units under this subsection which total
- 19 in the aggregate no more than 62 gigawatts of treated
- 20 generating capacity, of which not more than 10 percent
- 21 of this capacity may be for industrial units. For purposes
- 22 of determining gigawatt equivalency under this subsection,
- 23 6 million metric tonnes per year of captured and seques-
- 24 tered carbon dioxide emissions from industrial units shall

be treated as having the capacity equivalent of 1 gigawatt 2 of treated generating capacity. 3 "(g) CERTIFICATION PROGRAM.— "(1) The Secretary shall establish a program 4 5 for the certification of new or retrofit electric units 6 and new or retrofit industrial units utilizing carbon 7 capture and sequestration technology eligible to 8 apply for a credit under this section. A facility shall 9 be certified only if the owner or operator of the unit— 10 "(A) specifies the capacity of the unit sub-11 12 ject to carbon capture and sequestration, and "(B) commits to place the unit, or equip-13 14 ment in the case of a retrofit, in service within 15 7 years after the date of the certification and 16 to comply with such interim development mile-17 stones (including the issuance of all necessary 18 Federal, State, and local permits) as the Sec-19 retary shall, by rule, prescribe. "(2) Failure to comply with the 7-year date set 20 21 forth in this subsection or with any significant mile-22 stone or other requirement established by the Sec-23 retary under paragraph (1) shall result in the termi-24 nation of the certification. The 7-year date shall be

extended by the period of any delay caused by chal-

1	lenges or litigation related to permits required for
2	the facility. No unit for which a certification has
3	been terminated shall be eligible for a new certifi-
4	cation under this section.
5	"(h) APPLICATION OF SECTION.—The credit under
6	this section shall apply to carbon dioxide captured and se-
7	questered in secure geologic storage from a certified new
8	or retrofit electric utility unit or from a certified new or
9	retrofit industrial unit. The taxpayer may claim the credit
10	for a 10-year period commencing on the date the unit is
11	placed in service.
12	"(i) Other Credits.—Carbon dioxide from equip-
13	ment for which carbon dioxide storage credit has been al-
14	lowed under section $45\mathrm{Q}$ or an investment credit has been
15	allowed under section 48E shall not be eligible for a credit
16	under this section.
17	"(j) Definitions.—In this section:
18	``(1) Retrofit.—The term 'retrofit' means the
19	application of carbon capture and sequestration
20	technology to an existing unit, provided that such
21	technology treats at least—
22	"(A) 20 percent of the carbon dioxide
23	emissions of the unit; or
24	"(B) an amount of carbon dioxide emis-
25	sions that is attributable to 200 megawatts of

1	the total nameplate generating capacity (or, in
2	the case of an industrial unit, an equivalent ca-
3	pacity).
4	(2) Industrial unit.—The term 'industrial
5	unit' means a unit that—
6	"(A) is not a qualifying electric generating
7	unit;
8	"(B) uses coal or petroleum coke for at
9	least 75 percent of the fuel used by the unit;
10	and
11	"(C) absent carbon capture and sequestra-
12	tion, would emit greater than 500,000 tons per
13	year of carbon dioxide.
14	"(3) Treated generating capacity.—The
15	term 'treated generating capacity' means the portion
16	of the total generating capacity of an electric gener-
17	ating unit (or, in the case of an industrial unit, an
18	equivalent capacity) for which the flue gas or fuel
19	gas is treated by carbon capture and sequestration
20	technology.".
21	(b) CLERICAL AMENDMENT.—The table of sections
22	for subpart D of part IV of subchapter A of chapter 1
23	of the Internal Revenue Code of 1986 is amended by add-
24	ing at the end thereof the following:
	"45S. Credit for early adoption of CCS.".

1	SEC. 302. CARBON SEQUESTRATION BONDS.
2	(a) In General.—Part IV of subchapter A of chap-
3	ter 1 of the Internal Revenue Code of 1986 is amended
4	by adding at the end the following new subpart:
5	"Subpart K—Carbon Sequestration Bonds
	"Sec. 54BB. Carbon Sequestration bonds.
6	"SEC. 54BB. CARBON SEQUESTRATION BONDS.
7	"(a) In General.—If a taxpayer holds a carbon se-
8	questration bond on one or more interest payment dates
9	of the bond during any taxable year, there shall be allowed
10	as a credit against the tax imposed by this chapter for
11	the taxable year an amount equal to the sum of the credits
12	determined under subsection (b) with respect to such
13	dates.
14	"(b) Amount of Credit.—The amount of the credit
15	determined under this subsection with respect to any in-
16	terest payment date for a carbon sequestration bond is
17	70 percent of the amount of interest payable by the issuer
18	with respect to such date.
19	"(c) Limitation Based on Amount of Tax.—
20	"(1) In general.—The credit allowed under
21	subsection (a) for any taxable year shall not exceed
22	the excess of—
23	"(A) the sum of the regular tax liability
24	(as defined in section 26(b)) plus the tax im-

posed by section 55, over

1	"(B) the sum of the credits allowable
2	under this part (other than subpart C and this
3	subpart).
4	"(2) Carryover of unused credit.—If the
5	credit allowable under subsection (a) exceeds the
6	limitation imposed by paragraph (1) for such taxable
7	year, such excess shall be carried to the succeeding
8	taxable year and added to the credit allowable under
9	subsection (a) for such taxable year (determined be-
10	fore the application of paragraph (1) for such suc-
11	ceeding taxable year).
12	"(d) Carbon Sequestration Bond.—
13	"(1) In general.—For purposes of this sec-
14	tion, the term 'carbon sequestration bond' means
15	any obligation issued as part of an issue if—
16	"(A) 95 percent of the available project
17	proceeds (as defined in section 54A) of such
18	issue, in excess of the amounts in a reasonably
19	required reserve (within the meaning of section
20	150(a)(3)) for such issue, are to be used for
21	qualified carbon sequestration costs incurred by
22	public power providers or cooperative electric
23	companies,
24	"(B) the obligation is issued by a qualified
25	issuer, and

1	"(C) the issuer makes an irrevocable elec-
2	tion to have this section apply.
3	"(2) Applicable rules.—For purposes of ap-
4	plying paragraph (1)—
5	"(A) an issue shall not be treated as meet-
6	ing the requirements of paragraph (1) unless
7	the issue satisfies the requirements of section
8	148 with respect to the proceeds of the issue,
9	"(B) for purposes of applying section 148
10	to such an issue, the yield on a carbon seques-
11	tration bond shall be determined without regard
12	to the credit allowed under subsection (a),
13	"(C) an issue shall not be treated as meet-
14	ing the requirements of this paragraph unless
15	the issuer of the carbon sequestration bonds
16	submits reports similar to the reports required
17	under section 149(e), and
18	"(D) a bond shall not be treated as a car-
19	bon sequestration bond if the issue price has
20	more than a de minimis amount (determined
21	under rules similar to the rules of section
22	1273(a)(3)) of premium over the stated prin-
23	cipal amount of the bond.
24	"(e) Limitation on Amount of Bonds Des-
25	IGNATED.—

- 1 "(1) IN GENERAL.—There is a national carbon 2 sequestration bond limitation of \$5,000,000,000. 3 "(2) Allocation by Secretary.—The Sec-4 retary shall make allocations of the amount of the 5 national carbon sequestration bond limitation in 6 such manner as the Secretary determines appro-7 priate. "(f) Interest Payment Date.—For purposes of 8 this section, the term 'interest payment date' means any date on which the holder of record of the carbon sequestra-10 tion bond is entitled to a payment of interest under such 12 bond. 13 "(g) Special Rules.— 14 "(1) Interest on carbon sequestration 15 BONDS INCLUDIBLE IN GROSS INCOME FOR FED-ERAL INCOME TAX PURPOSES.—For purposes of this 16 17 title, interest on any carbon sequestration bond shall
- "(2) APPLICATION OF CERTAIN RULES.—Rules similar to the rules of subsections (f), (g), (h), and (i) of section 54A shall apply for purposes of the credit allowed under subsection (a).

be includible in gross income.

"(h) SPECIAL RULE FOR QUALIFIED CARBON SEQUESTRATION BONDS.—In the case of a qualified carbon
sequestration bond—

- "(1) Issuer allowed refundable creditarion.—In lieu of any credit allowed under this section with respect to such bond, the issuer of such bond shall be allowed a credit as provided in section 6432.
 - "(2) QUALIFIED CARBON SEQUESTRATION
 BOND.—In this subsection, the term 'qualified carbon sequestration bond' means any carbon sequestration bond issued as part of an issue if the issuer
 makes an irrevocable election to have this subsection
 apply.

"(i) Definitions.—In this section:

- "(1) QUALIFIED CARBON SEQUESTRATION COSTS.—The term 'qualified carbon sequestration costs' means the incremental costs for carbon capture and sequestration systems as described in section 48E (without regard to any placed in service date), which systems are owned by a public power provider or a cooperative electric company.
- "(2) Public Power Provider.—The term 'public power provider' means a State utility with a service obligation, as such terms are defined in section 217 of the Federal Power Act (as in effect on the date of the enactment of the Carbon Capture and Sequestration Deployment Act of 2010).

- 1 "(3) COOPERATIVE ELECTRIC COMPANY.—The 2 term 'cooperative electric company' means a mutual 3 or cooperative electric company described in section 4 501(c)(12) or section 1381 (a)(2)(C).
- 5 "(4) QUALIFIED ISSUER.—The term 'qualified 6 issuer' means a public power provider, a cooperative 7 electric company, a clean renewable energy bond 8 lender, or a not-for-profit electric utility which has 9 received a loan or loan guarantee under the Rural 10 Electrification Act.
- "(j) Regulations.—The Secretary may prescribe such regulations and other guidance as may be necessary and or appropriate to carry out this section and section 4 6431."
- 15 (b) CREDIT FOR QUALIFIED CARBON SEQUESTRA-16 TION BONDS.—Subchapter B of chapter 65 of such Code
- 17 is amended by adding at the end the following new section:
- 18 "SEC. 6432. CREDIT FOR QUALIFIED CARBON SEQUESTRA-
- 19 TION BONDS ALLOWED TO ISSUER.
- $^{\prime\prime}(a)$ In General.—In the case of a qualified carbon
- 21 sequestration bond, the issuer of such bond shall be al-
- 22 lowed a credit with respect to each interest payment under
- 23 such bond which shall be payable by the Secretary as pro-
- 24 vided in subsection (b).

- "(b) PAYMENT OF CREDIT.—The Secretary shall pay 1 2 (contemporaneously with each interest payment date 3 under such bond) to the issuer of such bond (or to any 4 person who makes such interest payments on behalf of the 5 issuer) 65 percent of the interest payable under such bond 6 on such date. 7 "(c) Definitions.—In this section: "(1) Interest payment date.—The term 'in-8 9 terest payment date' means each date on which in-10 terest is payable by the issuer under the terms of 11 the bond. 12 "(2)QUALIFIED CARBON SEQUESTRATION 13 BOND.—The term 'qualified carbon sequestration 14 bond' has the meaning given such term in section 15 54BB(h)(2). 16 "(d) APPLICATION OF ARBITRAGE RULES.—For purposes of section 148, the yield on a qualified bond shall 17 18 be reduced by the credit allowed under this section.". 19 (c) Conforming Amendments.— 20 (1) Section 1324(b)(2) of title 31, United States Code, is amended by striking "or 6431" and 21 22 inserting "6431, or 6432,". 23 (2) Section 54A(c)(1)(B) of the Internal Rev-
- 23 (2) Section 54A(c)(1)(B) of the Internal Rev-24 enue Code of 1986 is amended by striking "subparts 25 C and J" and inserting "subparts C, J, and K".

- 1 (3) Sections 54(c)(2), 1397E(c)(2), and 2 1400N(l)(3)(B) of such Code are each amended by 3 striking "and J" and inserting "J, and K".
 - (4) Section 6211(b)(4)(A) of such Code is amended by striking "and 6431" and inserting "6431, and 6432".
 - (5) Section 6401(b)(1) of such Code is amended by striking "and J" and inserting "J, and K".
- 9 (6) The table of subparts for part IV of sub-10 chapter A of chapter 1 of such Code is amended by 11 adding at the end the following new item:

"SUBPART K. CARBON SEQUESTRATION BONDS.".

12 (7) The table of sections for subchapter B of 13 chapter 65 of such Code is amended by adding at 14 the end the following new item:

"Sec. 6432. Credit for qualified carbon sequestration bonds allowed to issuer.".

- 15 (d) Transitional Coordination With State
- 16 Law.—Except as otherwise provided by a State after the
- 17 date of the enactment of this Act, the interest on any car-
- 18 bon sequestration bond (as defined in section 54BB of the
- 19 Internal Revenue Code of 1986, as added by this section)
- 20 and the amount of any credit determined under such sec-
- 21 tion with respect to such bond shall be treated for pur-
- 22 poses of the income tax laws of such State as being exempt
- 23 from Federal income tax.

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1	(e) Effective Date.—The amendments made by
2	this section shall apply to obligations issued after the date
3	of the enactment of this Act.
4	TITLE IV—CCS TECHNOLOGY
5	STANDARD FOR POWERPLANTS
6	SEC. 401. CCS STANDARDS FOR COAL-FUELED POWER
7	PLANTS.
8	(a) In General.—Title I of the Clean Air Act (42
9	U.S.C. 7401 et seq.) is amended by inserting after section
10	111 the following:
11	"SEC. 111A. CCS STANDARDS FOR NEW COAL-FIRED POWER
12	PLANTS.
13	"(a) Definitions.—In this section:
14	"(1) COVERED UNITS.—The term 'covered unit'
15	means an electric utility generating unit that derives
16	50 percent of its annual heat input from coal, petro-
17	leum coke, or any combination of these fuels.
18	"(2) Initially permitted.—The term "ini-
19	tially permitted' means, with respect to an electric
20	utility generating unit, that the owner or operator of
21	a unit has received a preconstruction approval or
22	permit under this Act, for the covered unit as a new
23	(not a modified) source, but administrative review or
24	appeal of such approval or permit has not been ex-
25	hausted. A subsequent modification of any such ap-

proval or permit, ongoing administrative or court review, appeals, or challenges, or the existence or tolling of any time to pursue further review, appeals, or challenges shall not affect the date on which a unit is considered to be initially permitted.

"(3) Treated generating capacity' means the portion of the total generating capacity of an electric generating unit (or, in the case of an industrial unit, an equivalent capacity) for which the flue gas or fuel gas is treated by carbon capture and sequestration technology.".

"(b) STANDARDS.—

"(1) Emission limit.—A covered unit that is initially permitted on or after the date of the enactment of the Carbon Capture and Sequestration Deployment Act of 2010 and before January 1, 2020, shall achieve, by the compliance date set forth in paragraph (2), an emission limit for carbon dioxide that reflects 50 percent reduction from the carbon content of the fuel used by the unit, as measured on an annual basis.

"(2) COMPLIANCE.—Compliance with the requirement set forth in paragraph (1) shall be required by the earlier of the following:

1	"(A) Four years after the date the Admin-
2	istrator has published a report that there are in
3	commercial operation in the United States elec-
4	tric generating units or other stationary sources
5	equipped with carbon capture and sequestration
6	technology that, in the aggregate—
7	"(i) have a total of at least 10
8	gigawatts of treated generating capacity;
9	and
10	"(ii) include electric generating units
11	with at least 4 gigawatts of treated gener-
12	ating capacity which units are capturing
13	and sequestering in deep geologic saline
14	formations the aggregate at least 24 mil-
15	lion tons of carbon dioxide per year, cal-
16	culated on an aggregate annualized basis;
17	or
18	"(B) the later of—
19	"(i) January 1, 2030; or
20	"(ii) the date by which the assessment
21	under section 102(b) determines that it is
22	reasonable to conclude that technology is
23	available to the commercial marketplace.
24	"(c) REGULATIONS.—Not later than 2 years after the
25	date of enactment of the Carbon Capture and Sequestra-

1	tion Deployment Act of 2010, the Administrator shall pro-
2	mulgate regulations to carry out the requirements of this
3	section.
4	"(d) Compliance With Standards.—Not with-
5	standing other provisions of law, no unit subject to stand-
6	ards under subsection (b) shall be deemed subject to sec-
7	tion 111 of this Act for emissions of carbon dioxide. Any
8	unit subject to standards under subsection (b) shall be
9	deemed to have met the requirements of section 169(3)
10	for carbon dioxide.".
11	(b) Compliance and Judicial Review.—Sections
12	114 and 307 of such Act are each amended by striking
13	"section 111" in each place it appears and inserting "sec-
1314	"section 111" in each place it appears and inserting "section 111 or section 111A".
14	tion 111 or section 111A".
14 15	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHOR-
141516	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHORIZATIONS.
14 15 16 17	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHORIZATIONS. (a) DESIGNATION OF LEAD AGENCY.—
14 15 16 17 18	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHORIZATIONS. (a) DESIGNATION OF LEAD AGENCY.— (1) IN GENERAL.—The Department of Energy
14 15 16 17 18	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHOR- IZATIONS. (a) DESIGNATION OF LEAD AGENCY.— (1) IN GENERAL.—The Department of Energy shall act as the lead agency for the purposes of co-
14 15 16 17 18 19 20	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHOR- IZATIONS. (a) DESIGNATION OF LEAD AGENCY.— (1) IN GENERAL.—The Department of Energy shall act as the lead agency for the purposes of coordinating all applicable Federal authorizations and
14 15 16 17 18 19 20 21	tion 111 or section 111A". SEC. 402. CONSOLIDATED REVIEW OF FEDERAL AUTHOR- IZATIONS. (a) DESIGNATION OF LEAD AGENCY.— (1) IN GENERAL.—The Department of Energy shall act as the lead agency for the purposes of coordinating all applicable Federal authorizations and related environmental reviews with respect to an eli-

1	(B) the Endangered Species Act of 1973
2	(16 U.S.C. 1531 et seq.);
3	(C) the Federal Water Pollution Control
4	Act (33 U.S.C. 1251 et seq.);
5	(D) the National Environmental Policy Act
6	of 1969 (42 U.S.C. 4321 et seq.); or
7	(E) the Safe Drinking Water Act (42
8	U.S.C. 300f et seq.).
9	(2) OTHER AGENCIES.—Each Federal and
10	State agency required to provide a Federal author-
11	ization for an eligible project shall cooperate with
12	the Secretary and comply with the deadlines estab-
13	lished by the Secretary under subsection (b).
14	(b) Coordination and Consolidated Review.—
15	(1) SCHEDULE.—As the head of the lead agen-
16	cy, and in consultation with other agencies, the Sec-
17	retary shall establish a schedule for all Federal au-
18	thorizations with respect to each eligible project. In
19	establishing the schedule, the Secretary shall—
20	(A) set binding intermediate milestones
21	and deadlines to ensure expeditious completion
22	of all proceedings and final action on all Fed-
23	eral authorizations relating to the eligible
24	project;

1	(B) require that all permit decisions and
2	related environmental reviews under applicable
3	Federal laws shall be completed—
4	(i) within 1 year after the submission
5	of a complete application for each permit
6	decision or environmental review; or
7	(ii) if an express requirement of an-
8	other provision of Federal law does not
9	permit compliance with the 1-year deadline
10	in clause (i), as soon thereafter as is prac-
11	ticable; and
12	(C) coordinate, to the maximum extent
13	practicable, any permitting and environmental
14	reviews that apply to the eligible project only
15	under State law.
16	(2) Memorandum of understanding.—Not
17	later than 1 year after the date of enactment of this
18	Act, the Secretary and the heads of all Federal
19	agencies with authority to issue Federal authoriza-
20	tions shall execute a memorandum of understanding
21	to ensure the coordinated and streamlined review
22	and prompt issuance of Federal authorizations for
23	eligible projects.
24	(3) Pre-application review.—The Secretary
25	shall establish and facilitate a pre-application review

process to expedite the review of all Federal authorizations, including permit decisions and related environmental reviews, for any eligible project under applicable Federal laws. The pre-application review process shall require each agency involved in the review process to confer with prospective applicants and identify those issues of major concern to the agency and the general public regarding the eligible project. The pre-application review process shall require such agencies to provide a written response to an inquiry from a prospective applicant not later than 60 days after the completion of the pre-application review process.

- (4) Consolidation of environmental reviews.—The Secretary, in consultation with affected agencies, shall prepare a single environmental review document for assessing all major Federal actions related to any eligible project under section 102 of the National Environmental Policy Act of 1969 (42 U.S.C. 4332). Agencies subject to such environmental review requirements shall use the document as the basis for all decisions related to the eligible project.
- (5) Failure to meet schedule.—If a Federal or State agency does not complete a proceeding

1 for an approval that is required for a Federal au-2 thorization in accordance with the schedule estab-3 lished by the Secretary under this subsection, the applicant may pursue remedies under subsection (d). 5 (c) Consolidated Record.—The Secretary shall, with the cooperation of Federal and State agencies, main-6 tain a complete consolidated record of all decisions made 8 or actions taken by the Secretary or by a Federal agency (or State agency acting under delegated Federal author-10 ity) with respect to any Federal authorization. Such record shall be the record for judicial review under subsection (d) 12 of decisions made or actions taken of Federal and State agencies, except that, if the Court determines that the record does not contain sufficient information, the Court 14 15 may remand the proceeding to the Secretary for further development of the consolidated record. 16 17 (d) Judicial Review.— 18 (1) IN GENERAL.—The United States Court of 19 Appeals for the circuit in which the eligible project 20 is proposed to be constructed shall have original and 21 exclusive jurisdiction over any civil action for the re-22 view of— 23 (A) an order or action related to a Federal authorization, by a Federal agency (other than 24

the Secretary) or State agency acting pursuant

1	to Federal law to issue, including any order or
2	action to condition or deny any Federal author-
3	ization; and
4	(B) an alleged failure to act by a Federal
5	or State agency with respect to a Federal au-
6	thorization.
7	The failure of an agency to take action on a Federal
8	authorization in accordance with the schedule estab-
9	lished by the Secretary under subsection $(b)(1)$ shall
10	be considered to be inconsistent with Federal law for
11	the purposes of paragraph (2) of this subsection.
12	(2) Court action.—
13	(A) IN GENERAL.—The Court shall re-
14	mand the proceeding for a particular eligible
15	project to the appropriate agency if the Court
16	finds that—
17	(i) there has occurred either—
18	(I) an order or action described
19	in paragraph (1)(A) that is incon-
20	sistent with the Federal law governing
21	the Federal authorization for the eligi-
22	ble project; or
23	(II) a failure to act as described
24	in paragraph 1(B) with respect to the
25	eligible project; and

1	(ii) the order, action, or failure to act
2	would prevent the siting, construction, or
3	operation of the eligible project.
4	(B) REMAND.—If the Court remands the
5	order or action to the appropriate Federal or
6	State agency under subparagraph (A), the
7	Court shall provide specific direction to remedy
8	any inconsistency with Federal law and set a
9	reasonable schedule and appropriate deadlines
10	for the agency to act on remand.
11	(4) FILING CONSOLIDATED RECORD.—For any
12	civil action described in this subsection, the Sec-
13	retary shall promptly file with the Court the consoli-
14	dated record of the order or action to which the ap-
15	peal hereunder relates, as compiled by the Secretary
16	pursuant to subsection (c).
17	(5) Expedited review.—The Court shall set
18	any action brought under this subsection for expe-
19	dited consideration.
20	(e) Definitions.—In this section:
21	(1) Administrator.—The term "Adminis-
22	trator" means the Administrator of the Environ-
23	mental Protection Agency.
24	(2) ELIGIBLE PROJECT.—The term "eligible
25	project" means any project that is eligible to receive

1	a financial incentive under title II or III this Act or
2	the amendments made by this Act.
3	(3) FEDERAL AUTHORIZATION.—The term
4	"Federal authorization"—
5	(A) means any authorization required
6	under Federal law, whether administered by a
7	Federal or State agency, with respect to the
8	siting, construction, or operation of an eligible
9	project; and
10	(B) includes any permit, license, special
11	use authorizations, certifications, opinions, con-
12	currence, or other approvals that may be re-
13	quired under Federal law with respect to the
14	siting, construction, or operation of an eligible
15	project.
16	(4) Secretary.—The term "Secretary" means
17	the Secretary of Energy.
18	(f) REGULATIONS.—Not later than 18 months after
19	the date of enactment of this Act, the Secretary shall es-
20	tablish by rule, after notice and public opportunity to com-
21	ment, regulations that are necessary to implement this
22	section.
23	(g) Relationship to other Laws.—Except as spe-
24	cifically provided, nothing in this section affects any re-

1	quirement of any Federal or State law, including the Fed-
2	eral laws described in subsection (a)(1).
3	TITLE V—CARBON STORAGE
4	STEWARDSHIP
5	SEC. 501. SHORT TITLE.
6	This title may be cited as the "Carbon Storage Stew-
7	ardship Act".
8	SEC. 502. PURPOSE.
9	The purpose of this title is to facilitate carbon cap-
10	ture and storage in suitable underground formations by—
11	(1) providing for long-term stewardship of
12	closed carbon dioxide storage sites to ensure con-
13	tinuing protection of health, safety, and the environ-
14	ment during the stewardship period;
15	(2) providing a system for compensation to any
16	person that may suffer personal injury or property
17	damage from stored carbon dioxide at such a site;
18	(3) establishing financial responsibility and a
19	dedicated funding mechanism for such stewardship
20	and compensation; and
21	(4) establishing a transitional program that
22	provides limited indemnification for owners and op-
23	erators of qualifying first mover projects to dem-
24	onstrate the capture and geological storage of car-
25	bon dioxide.

1 SEC. 503. DEFINITIONS.

2 In this title:

- 3 (1) BOARD.—The term "Board" means the 4 Carbon Storage Stewardship Board that is estab-5 lished under section 508.
 - (2) CARBON DIOXIDE.—The term "carbon dioxide" means carbon dioxide that is segregated for purposes of geologic storage, including small quantities of other compounds to the extent authorized by the terms of the injection permits issued for the storage facility.
 - (3) CERTIFICATE OF COMPLETION.—The term "certificate of completion" means a determination issued with respect to a storage facility by the regulatory authority that certifies that the project operator has completed injection operations, well closure, and any required monitoring and remediation at a storage facility, so that there is a reasonable basis to believe that carbon dioxide is and will continue to be safely stored at the site and will not present an unreasonable risk to health, safety, or the environment (including drinking water supplies) during the stewardship period.
 - (4) CERTIFIED POST-CLOSURE STORAGE FACIL-ITY.—The term "certified post closure storage facility" means a storage facility for which the regu-

1	latory authority has issued a certificate of comple-
2	tion.
3	(5) CIVIL CLAIM.—The term "civil claim"
4	means any claim for civil relief with respect to a fa-
5	cility that arises from migration of carbon dioxide
6	from such facility or is otherwise related to the in-
7	jection of carbon dioxide at such facility, excluding—
8	(A) any claim arising from breach of an
9	express contract; and
10	(B) in the case of a project operator, any
11	claim arising from—
12	(i) willful violation of applicable rules
13	of the regulatory authority; or
14	(ii) any false statement or misrepre-
15	sentation in an application for a certificate
16	of completion; and
17	(iii) conduct that constitutes reckless
18	or intentional misconduct by the project
19	operator.
20	(6) Federal or state environmental re-
21	QUIREMENT.—The term "Federal or State environ-
22	mental requirement" means a requirement of a Fed-
23	eral or State agency that—
24	(A) relates to health, safety, or the envi-
25	ronment that results from the injection of car-

1	bon dioxide at a certified post-closure storage
2	facility;
3	(B) is authorized under Federal or State
4	law; and
5	(C) imposes an obligation relating to such
6	injection of carbon dioxide during the steward-
7	ship period to—
8	(i) monitor the migration of carbon
9	dioxide within and from a certified post-
10	closure storage facility;
11	(ii) perform remediation at such facil-
12	ity;
13	(iii) desist from any action that poses
14	a health, safety, or environment risk; or
15	(iv) take other such action that may
16	be necessary to ensure the protection of
17	health, safety or the environment.
18	(7) First mover project.—The term "first
19	mover project" is a project involving the large-scale
20	capture and geological sequestration of carbon diox-
21	ide that the Secretary selects for indemnification
22	under section 508.
23	(8) Non-federal member.—The term "non-
24	Federal member" means any member of the Board

1	who is not otherwise employed by the Federal gov-
2	ernment.
3	(9) Program.—The term "Program" means
4	the National Carbon Storage Stewardship Program
5	established under section 507.
6	(10) Project operator.—The term "project
7	operator" means the entity responsible for injection
8	operations at a storage facility.
9	(11) Public Claim.—The term "public
10	claim''—
11	(A) means a civil claim that is asserted by
12	a third party for—
13	(i) personal injury;
14	(ii) property damage;
15	(iii) trespass; or
16	(iv) nuisance; but
17	(B) does not include claims for punitive
18	damages or non-economic losses.
19	(12) REGULATORY AUTHORITY.—The term
20	"regulatory authority" for a storage facility means
21	the State or Federal agency that issues an injection
22	permit for such storage facility. If more than one
23	agency has such authority with respect to a facility,
24	the Board shall designate one of the permitting

- agencies as the regulatory authority for such facility
 for purposes of carrying out this title.
- 3 (13) Remediation.—The term "remediation"
 4 means action to remedy, mitigate, or correct any
 5 danger to health, safety, or the environment (including any damage to underground drinking water supplies) that occurs as a result of prior injection of
 8 carbon dioxide at a certified post-closure storage facility.
 - (14) Secretary.—The term "Secretary" means the Secretary of Energy.
 - (15) STEWARDSHIP AGENCY.—The term "stewardship agency" means the agency that has assumed stewardship responsibility under section 504.
 - (16) Stewardship period.—The term "stewardship period" for a storage facility means the period of time that begins upon the date that the regulatory authority issues the certificate of completion for the storage facility.
 - (17) STEWARDSHIP RESPONSIBILITY.—The term "stewardship responsibility" means responsibility for monitoring and remediation of certified post-closure storage facilities in a State during the stewardship period, as provided in section 504.

- (18) STORAGE FACILITY.—The term "storage 1 2 facility" means a facility for long-term geologic stor-3 age and sequestration of carbon dioxide, including a 4 facility for enhanced oil or gas recovery, as provided 5 by section 506(b)(1)(B). 6 (19) Trust fund.—The term "Trust Fund" means the Carbon Storage Stewardship Trust Fund 7 8 that is established under section 506. SEC. 504. STEWARDSHIP RESPONSIBILITY. 10 (a) Agency Responsible for Stewardship.—A 11 State may accept stewardship responsibility for certified 12 post-closure storage facilities in that State in accordance with regulations of the Secretary. If a State declines to accept stewardship responsibility, then the Secretary shall 14 15 have stewardship responsibility for certified post-closure storage facilities in that State. In accordance with such 16 17 rules as the Secretary may prescribe, if a State that has accepted stewardship responsibility fails to carry out such 18 19 responsibility, the Secretary shall, after notice and opportunity for comment, assume such responsibility. 21 (b) Administration, Monitoring and Remedi-22 ATION.— 23 (1) Responsibilities.—Upon issuance of the 24 certificate of completion for a storage facility, the

stewardship agency shall be responsible for providing

- all monitoring and remediation of the carbon dioxide injected at that storage facility. The monitoring and remediation shall be conducted in accordance with standards prescribed by the Board under section 507(c)(1).
 - (2) Reimbursement of agency costs.—The Board shall reimburse the stewardship agency for all reasonable and verified costs that the stewardship agency has incurred for program administration and the performance of its stewardship responsibility, as described in paragraph (1). The Board shall pay such costs from the Trust Fund through the Program and in accordance with a reimbursement contract entered into under subsection (c).

(c) REIMBURSEMENT CONTRACTS.—

(1) In General.—The Board shall offer each agency that accepts stewardship responsibility for certified post-closure storage facilities within a State a contract under which the Board provides reimbursement for costs of administration, monitoring, and remediation of such facilities during the stewardship period as determined under paragraph (2). Section 1341 of title 31, United States Code shall not apply to any such contract. The contract shall

1	be backed by the full faith and credit of the United
2	States.
3	(2) Rules.—The Board shall prescribe rules
4	for reimbursement of all reasonable costs of adminis-
5	tration, monitoring, and remediation incurred by
6	agencies that have stewardship responsibility for cer-
7	tified post-closure storage facilities.
8	SEC. 505. RESPONSIBILITY FOR PAYMENT OF CLAIMS.
9	(a) Claims Against the Trust Fund.—
10	(1) Public claims.—Upon issuance of the cer-
11	tificate of completion for a storage facility, all public
12	claims related to the carbon dioxide injected at that
13	certified post closure storage facility shall be filed
14	with the Board and paid from Trust Fund.
15	(2) Orphan storage facilities.—A steward-
16	ship agency having jurisdiction over a particular
17	storage facility may petition the Board for reim-
18	bursement from the Trust Fund of the monitoring
19	and remediation costs that may be incurred by such
20	stewardship agency consistent with the standards es-
21	tablished under section 507(c) if—
22	(A) the particular storage facility—
23	(i) has completed injection operations
24	at the storage facility;

1	(ii) has obtained all applicable permits
2	for the injection of carbon dioxide into the
3	storage facility and substantially complied
4	with the requirements of those permits
5	during the injection operations;
6	(iii) has paid annual assessments into
7	the Trust Fund, as required under section
8	506(b), for a substantial majority of the
9	carbon dioxide injected into the storage fa-
10	cility; and
11	(iv) is unable to obtain a certificate of
12	completion from the regulatory authority;
13	and
14	(B) a United States bankruptcy court has
15	issued—
16	(i) a bankruptcy discharge that re-
17	leases the owners, operators, and any other
18	potentially responsible parties from the fi-
19	nancial liabilities related to the particular
20	storage facility; or
21	(ii) other determination that the own-
22	ers, operators, and any other potentially
23	responsible parties of the particular stor-
24	age are financially unable to fulfill condi-
25	tions and requirements necessary to obtain

1	a certificate of completion for the par-
2	ticular storage facility; and
3	(C) the Board determines that using the
4	Trust Fund to fund monitoring and remedi-
5	ation activities at the particular storage facility
6	is in the public interest.
7	(3) EXCLUSIVE BOARD JURISDICTION.—The
8	Board shall have exclusive jurisdiction to adjudicate
9	all public claims and petitions filed with Board
10	under paragraphs (1) and (2), as provided by section
11	509.
12	(b) Claims Against Stewardship Agencies.—
13	(1) CIVIL CLAIMS.—Subject to paragraph (2),
14	an agency that has stewardship responsibility for a
15	certified post-closure storage facility is not subject to
16	any civil claim as a result of assuming or carrying
17	out its stewardship responsibility under this title.
18	(2) Federal and state requirements.—An
19	agency that has stewardship responsibility for a cer-
20	tified post-closure storage facility shall be subject
21	to—
22	(A) all applicable Federal and State envi-
23	ronmental requirements that relate to the injec-
24	tion of carbon dioxide at that storage facility
25	during the stewardship period; and

1	(B) civil claims for injunctive relief for the
2	performance of—
3	(i) all applicable Federal and State
4	environmental requirements that relate
5	to—
6	(I) the ongoing monitoring,
7	measurement, and verification of car-
8	bon dioxide injected at that storage
9	facility; and
10	(II) maintaining the integrity of
11	the storage facility during the stew-
12	ardship period; and
13	(ii) any requirement to provide reme-
14	diation at the storage facility during the
15	stewardship period that is—
16	(I) consistent with any applicable
17	Federal or State environmental re-
18	quirements; and
19	(II) necessary to remedy any
20	breach in the integrity of the storage
21	facility that is caused by the injection
22	of carbon dioxide into such facility.
23	(3) Venue.—Civil claims brought for injunctive
24	relief under paragraph (2)(B) shall be filed in the

- District Court of the United States in which the stewardship agency is located.
- 3 (4) Conflicting requirements.—If a stand4 ard or requirement established by the Board differs
 5 from any Federal or State environmental require6 ment, compliance with the Board standard or re7 quirement shall be deemed to satisfy the obligation
 8 of a stewardship agency to comply with the cor9 responding State or Federal environmental require10 ment.
- 11 (c) Claims Against Operators, Property Own-
- 12 ERS, TRANSPORTERS, AND GENERATORS.—Upon issuance
- 13 of the certificate of completion for a storage facility, civil
- 14 claims related to the carbon dioxide injected at that cer-
- 15 tified post-closure storage facility may not be brought
- 16 against—
- 17 (1) the project operator of the facility, except if
- the Board determines that there are insufficient
- funds in the Trust Fund to pay such claims, as pro-
- vided in subsection (b)(5)(E) of section 506;
- 21 (2) the owner of the facility;
- 22 (3) a holder of a real property interest in the facility;
- 24 (4) any transmission pipeline that transported 25 carbon dioxide to the facility; or

1	(5) the generator of the carbon dioxide being
2	handled by either the pipeline or storage facility.
3	SEC. 506. CARBON STORAGE STEWARDSHIP TRUST FUND.
4	(a) Establishment of Trust Fund.—The Carbon
5	Storage Stewardship Trust Fund is hereby established in
6	the Treasury. The Trust Fund shall be administered by
7	the Board. Notwithstanding section 3302 of title 31,
8	United States Code, all assessments paid under subsection
9	(b) shall be deposited in the Trust Fund and shall be avail-
10	able without fiscal year limitation and without further ap-
11	propriation solely for the purpose of—
12	(1) covering the administrative costs of the
13	Board under this title; and
14	(2) making payments authorized by section
15	507.
16	(b) Assessments.—
17	(1) Payment by operator.—
18	(A) In general.—Except as provided in
19	subparagraph (B), each project operator of a
20	storage facility shall pay an annual assessment
21	into the Trust Fund for the carbon dioxide in-
22	jected into a storage facility during a given cal-
23	endar year after the date of enactment of this
24	Act. The annual assessment shall be equal to
25	the product of—

1	(i) the number of tons of carbon diox-
2	ide that are injected into the storage facil-
3	ity for a particular year during the oper-
4	ational phase of the facility; and
5	(ii) the assessment amount, expressed
6	on a dollar-per-ton of carbon dioxide in-
7	jected, that the Board has established for
8	the storage facility under paragraph (2).
9	(B) Enhanced oil or gas recovery.—
10	In the case of the injection of carbon dioxide for
11	the purpose of enhanced oil or gas recovery, the
12	requirement to pay an annual assessment into
13	the Trust Fund under subparagraph (A) shall
14	apply—
15	(i) solely to the net quantity of carbon
16	dioxide injected into a storage facility for
17	the purpose of the long-term geological
18	storage of the carbon dioxide in order to
19	meet a greenhouse gas reduction compli-
20	ance obligation under a Federal or State
21	regulatory program; and
22	(ii) only to the extent that the project
23	operator has relied upon geological storage
24	of the carbon dioxide for meeting a green-
25	house gas reduction compliance obligation

1	under a Federal or State regulatory pro-
2	gram.
3	(C) Special rule.—
4	(i) Extended payment sched-
5	ULE.—Except as provided by clause (ii),
6	the Board may impose an assessment
7	under subparagraph (A) upon any storage
8	facility existing on the date of enactment
9	of this Act for amounts of carbon dioxide
10	injected prior to the establishment of the
11	Trust Fund. The Board shall establish a
12	reasonable schedule for the payment of the
13	assessment authorized under the previous
14	sentence, which shall not exceed 10 years.
15	(ii) Demonstration projects.—
16	The Board shall not impose an assessment
17	under subparagraph (A) in the case of a
18	demonstration project that—
19	(I) injects carbon dioxide in
20	amounts that are less than 1,000,000
21	tons per year;
22	(II) has an injection period of 5
23	years or less; and

1	(III) poses a de minimis risk to
2	health, safety, or the environment
3	during the stewardship period.
4	(iii) Trust fund coverage.—In the
5	case of a project that is exempted from the
6	assessment under clause (ii) of this sub-
7	paragraph, the stewardship agency shall—
8	(I) perform any monitoring and
9	remediation that may be necessary
10	after the proper closure of the storage
11	facility;
12	(II) receive reimbursement for
13	the reasonable costs for performing
14	such monitoring and remediation ac-
15	tivities from the Trust Fund by the
16	Board; and
17	(III) be subject to civil claims for
18	injunctive relief to perform appro-
19	priate monitoring and remediation, as
20	provided under section 505(b)(2)(B).
21	(2) Assessment amount.—After providing op-
22	portunity for public notice and comment and after
23	taking into account the information, recommenda-
24	tions and guidance that the technical advisory com-
25	mittee may provide under section 508(g), the Board

- shall determine by rule the assessment amount that applies to each ton of carbon dioxide injected into a storage facility in accordance with method prescribed in paragraph (3).
 - (3) METHOD FOR CALCULATING ASSESSMENT AMOUNT.—The Board shall establish by rule a method for calculating the assessment amount that—
 - (A) establishes a specific dollar-per-ton assessment for the injection of carbon dioxide into each type or class of storage facilities that the Board has identified under paragraph (4)(A);
 - (B) reflects the degree of risk that substantial remediation costs and public claims might be incurred for each type or class of storage facilities for which the Board has developed a risk profile under paragraph (4)(B);
 - (C) accounts for the cumulative quantities of carbon dioxide that project operators are expected to inject into storage facilities at appropriate milestones over the life of the Program;
 - (D) calculates the net present value of cumulative payments that the Board expects to make under section 507 at appropriate milestones over the life of the Program for—

1	(i) reasonable future administrative
2	costs that the Board expects to incur
3	under the Act;
4	(ii) reimbursement to stewardship
5	agencies for the reasonable future costs
6	that such agencies are likely to incur for
7	program administration, monitoring, reme-
8	diation and the performance of other stew-
9	ardship responsibilities under section 504;
10	and
11	(iii) satisfaction of public claims on
12	which the Board expects to make payment
13	based on the reasonably anticipated risks
14	of ultimate recovery against the Program
15	for such costs under section 505;
16	(E) calculates the net present value of pay-
17	ments that the Board expects to be deposited
18	into the Trust Fund under this subsection at
19	appropriate milestones over the life of the Pro-
20	gram; and
21	(F) reflects the best available engineering,
22	geological, and scientific information, including
23	the information, recommendations and guidance
24	that the technical advisory committee may pro-
25	vide to the Board under section 508(g).

1	(4) Types and classes of storage facili-
2	TIES.—
3	(A) Identification and categoriza-
4	TION.—The Board shall identify those geologi-
5	cal formations that may potentially be used as
6	a storage facility and categorize each identified
7	formation into an appropriate type or class
8	based on—
9	(i) the type of formation, including
10	depleted oil and gas formations, deep
11	unmineable coal seems, and deep saline
12	aquifers;
13	(ii) depth of injection of carbon diox-
14	ide into the formation;
15	(iii) proximity of the formation to
16	drinking water sources, human settle-
17	ments, or ecologically sensitive areas;
18	(iv) proximity of the formation to seis-
19	mically active geological faults; and
20	(v) other factors that may affect the
21	probability that the Board may incur sub-
22	stantial costs for remediation and public
23	claims under section 508(g).
24	(B) RISK PROFILES.—For each type or
25	class of geological formation identified under

subparagraph (A), the Board shall prepare a profile of the reasonably foreseeable risks that could result by the injection of carbon dioxide into such a formation. In developing such risk profiles, the Board shall rely on the best available scientific information, including the information, recommendations and guidance that the technical advisory committee may provide to the Board under section 508(g).

(5) Adjustment of assessment amount.—

(A) In General.—The Board shall prescribe rules for adjusting the assessment amount established under paragraph (2) if the Board determines that the Trust Fund is underfunded or overfunded to cover the payments expected under section 507. The Board shall make its determination on the sufficiency of such funds in the Trust Fund based on actuarial studies to be conducted at least every 5 years, beginning 10 years after the date of enactment of this Act, and any change in the assessment amount shall be made in accordance with the applicable provisions of this subsection and after opportunity for public notice and comment.

1	(B) Limits on size of trust fund.—
2	(i) IN GENERAL.—The Board shall es-
3	tablish by rule a minimum and maximum
4	balance for the Trust Fund and adjust the
5	amount of the assessment amount to en-
6	sure that the amounts in Trust Fund re-
7	main within the minimum and maximum
8	fund levels established under this subpara-
9	graph. In setting the minimum and max-
10	imum fund levels, the Board shall—
11	(I) apply the criteria prescribed
12	in paragraph (3) for calculating the
13	assessment amount; and
14	(II) take into account the infor-
15	mation, recommendations and guid-
16	ance that the technical advisory com-
17	mittee may provide under section
18	508(g).
19	(ii) Review and Revision.—The
20	Board shall review from time to time and
21	revise as necessary and appropriate the
22	minimum and maximum levels established
23	for the Trust Fund under clause (i) of this
24	subparagraph. The Board may make any
25	revision to the minimum and maximum

1	levels only in accordance with applicable
2	provisions of this subsection, including the
3	requirements of clause (i) of this subpara-
4	graph.
5	(C) Rebates if trust fund is over-
6	FUNDED.—The Board may provide rebates to
7	project operators that have made payments into
8	the Trust Fund under subsection (b) if the
9	Board determines by rule that—
10	(i) the Trust Fund is overfunded
11	under subparagraph (A);
12	(ii) a substantial reduction in future
13	payments into the Trust Fund would be
14	necessary to ensure that the amounts in
15	the Trust Fund do not exceed maximum
16	balance levels established under subpara-
17	graph (B); and
18	(iii) a rebate of past payments, com-
19	bined with a downward adjustment of fu-
20	ture payments, into the Trust Fund is ap-
21	propriate to ensure a fair and equitable as-
22	sessment on all project operators contrib-
23	uting to the Trust Fund.
24	(D) Increases in assessment
25	AMOUNT.—The Board may increase the level of

the assessment amount for carbon dioxide injected into a storage facility if the Board determines by rule that the Trust Fund is underfunded under subparagraph (A). Any such increase in the assessment amount shall only apply prospectively to annual assessments for carbon dioxide injected during the operation of a storage facility under paragraph (2).

- (E) Claims in excess of trust fund.—
 The project operator shall be responsible to pay claims under section 505 that are related to, or arising from, the injection and sequestration of carbon dioxide at its certified post-closure storage facility if the Board determines that insufficient funds are available to pay such claims even after the application of a prospective increase of the assessment amount, as authorized by subparagraph (D).
- 19 (c) INVESTMENT.—At the request of the Board, the 20 Secretary of the Treasury may invest any part of the 21 amounts in the Trust Fund in interest-bearing securities 22 of the United States Government. The interest on, and 23 the proceeds from the sale or redemption of, the securities 24 shall be deposited in the Trust Fund.

1	(d) Repayable Advances.—If amounts in the
2	Trust Fund are insufficient to cover current obligations
3	of the Board under this Act, there are authorized to be
4	appropriated to the Trust Fund as interest-bearing repay-
5	able advances, such sums as may be necessary to carry
6	out the purposes of such Trust Fund. The terms and con-
7	ditions of such advances shall be as specified in appropria-
8	tion Acts.
9	SEC. 507. PAYMENTS FROM THE TRUST FUND.
10	(a) Establishment.—The Board shall establish and
11	administer the National Carbon Storage Stewardship Pro-
12	gram to—
13	(1) reimburse agencies (or the Secretary as pro-
14	vided under section 504) for the costs incurred for
15	program administration and in performing their
16	stewardship responsibilities with respect to certified
17	post-closure storage facilities, as provided in con-
18	tracts executed under section 504(c); and
19	(2) make payments to satisfy—
20	(A) public claims made with respect to cer-
21	tified post-closure storage facilities, as author-
22	ized by section 505(a)(1); and
23	(B) petitions to cover monitoring and re-
24	mediation costs incurred at storage facilities, as
25	authorized by section 505(a)(2).

1	The payment of these expenditures by the Board
2	shall be funded from the Trust Fund in accordance
3	with provisions of this title.
4	(b) Payment Schedules for Public Claims.—
5	The Board shall by rule prescribe payment schedules for
6	determining the nature and amount of compensation that
7	the Board will pay from the Trust Fund for public claims
8	under section 505(a)(1). The payment schedules shall re-
9	flect the best available engineering, geological, and sci-
10	entific information, including the information, rec-
11	ommendations and guidance that the technical advisory
12	committee may provide to the Board under section 508(g).
13	(e) Monitoring and Remediation.—
14	(1) STANDARDS.—The Board shall prescribe
15	standards for determining whether and to what ex-
16	tent monitoring and remediation will be required for
17	carbon dioxide injected at a certified post-closure
18	storage facility. The standards shall—
19	(A) be based on the applicable Federal and
20	State environmental requirements for the moni-
21	toring and remediation of carbon dioxide in-
22	jected at a certified post closure storage facility;
23	and
24	(B) reflect any other monitoring or remedi-
25	ation requirements that the Board determines

are necessary to protect the health, safety, and
the environment during the stewardship period.

(2) REIMBURSEMENT.—

(A) IN GENERAL.—The Board shall reim-

- (A) IN GENERAL.—The Board shall reimburse the stewardship agency from the Trust Fund for the costs that it has incurred for the monitoring and remediation in accordance with the standards established under paragraph (1) and contracts entered into under section 504.
- (B) Contractual disputes.—The stewardship agency or the Board may bring an action in the United States District Court to obtain relief on disputes relating to provisions of reimbursement contracts executed under section 504(c).
- 16 (d) Limitation on Payment of Claims.—The
 17 Board shall not pay claims otherwise authorized under
 18 this section if the claim for reimbursement or compensa19 tion arose from conduct of the project operator that con20 stitutes reckless or intentional misconduct.
- 21 (e) Private Insurers.—The Board may contract 22 with private insurers to provide claim adjustment services 23 for public claims. In addition, to the extent the Board de-24 termines that insurance from private sources to cover rea-25 sonably anticipated costs of public claims and remediation

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1	is available for certified post-closure storage facilities at
2	reasonable cost and on reasonable terms, the Board may
3	purchase such insurance from private sources.
4	SEC. 508. CARBON STORAGE STEWARDSHIP BOARD.
5	(a) Establishment.—There is hereby established
6	within the Department of Energy an independent agency
7	to be know as the Carbon Storage Stewardship Board.
8	(b) Purpose.—The purpose of the Board is to ad-
9	vance, in the most efficient and effective manner, the wide-
10	spread deployment of carbon capture and storage tech-
11	nologies by providing for the long-term stewardship of
12	closed storage sites in a manner that achieves the objec-
13	tives and requirements of this title.
14	(c) Organization.—
15	(1) Membership.—The Board shall consist of
16	7 members, of which—
17	(A) 4 shall be appointed by the President
18	by and with the advice and consent of the Sen-
19	ate; and
20	(B) 3 shall be full-time Federal employees
21	designated by the President in accordance with
22	paragraph (6).
23	(2) QUALIFICATIONS FOR MEMBERSHIP.—Each
24	member of the Board shall—
25	(A) he a citizen of the United States:

1	(B) have demonstrated knowledge and ex-
2	pertise in the fields relating to—
3	(i) carbon capture technologies;
4	(ii) geological storage of carbon diox-
5	ide in underground formations;
6	(iii) electric power generation; or
7	(iv) qualitative and quantitative eval-
8	uation of the risk posed to health, safety,
9	or the environment (including drinking
10	water supplies) by the injection of carbon
11	dioxide into underground formations; and
12	(C) in the case of members that are full-
13	time Federal employees designated under sub-
14	paragraph (c)(1)(B), be serving in a technical
15	capacity for the Federal agency on one or more
16	of the areas enumerated in subparagraph (B).
17	(3) Appointment and designation.—Not
18	later than 180 days after the date of enactment of
19	this Act, the President shall appoint or designate (as
20	the case may be) the members to the Board in ac-
21	cordance with the requirements of this subsection.
22	(4) Term of Service.—
23	(A) In General.—Except as provided
24	under subparagraph (B), each non-Federal
25	member of the Board shall serve for a term of

1	12 years and may be removed by the President
2	only for neglect of duty, malfeasance, or other
3	just cause for dismissal. Members of the Board
4	who are full-time Federal employees shall serve
5	at the pleasure of the President.
6	(B) First appointments.—In the case of
7	the non-Federal members that the President
8	first appoints to the Board,
9	(i) the Chairperson shall serve a term
10	of 6 years; and
11	(ii) the 3 remaining non-Federal
12	members to the Board (other than the
13	Chairperson) shall serve for terms of 8, 10,
14	and 12 years, as designated by the Presi-
15	dent at the time of appointment.
16	(C) Service until new appointment.—
17	The term of a non-Federal Board member shall
18	continue after the expiration of the term of the
19	member until the date on which a replacement
20	is appointed by the President and confirmed by
21	the Senate.
22	(D) Vacancy.—Any non-Federal Board
23	member appointed to fill a vacancy in an unex-
24	pired term shall serve only for the remainder of

that term.

1	(E) Reappointment.—An individual who
2	has served as a Board member for a term of
3	more than 8 years shall not be eligible for re-
4	appointment.
5	(5) Chairperson.—
6	(A) Designation.—The President shall
7	designate a Chairperson from the non-Federal
8	Board members that are representatives from
9	industry under paragraph (6)(E).
10	(B) Term of Service.—The Chairperson
11	of the Board shall serve for a term of 6 years
12	and may be reappointed for a second-year term.
13	(6) Composition of Board.—The Board shall
14	consist of—
15	(A) 1 employee from the Department of
16	Energy;
17	(B) 1 employee from Environmental Pro-
18	tection Agency;
19	(C) 1 employee from the Department of
20	Interior;
21	(D) 1 representative from a public utility
22	commission or other state governmental agency;
23	and

1	(E) 3 representatives from industry, in-
2	cluding 2 individuals who have substantial expe-
3	rience in the electric power sector.
4	(7) Level of Service.—
5	(A) Full-time service.—The Chair-
6	person of the Board shall serve on a full-time
7	basis and may not engage in any other busi-
8	ness, vocation, or employment while serving in
9	the capacity of Chairperson.
10	(B) Part-time service.—Members of the
11	Board who are not serving as the Chair-
12	person—
13	(i) shall serve on part-time basis, as
14	needed to perform the functions and re-
15	sponsibilities of the Board;
16	(ii) may engage in other business, vo-
17	cation, or employment so long as there is
18	no direct conflict of interest with their offi-
19	cial work responsibilities of Board; and
20	(iii) in the case of each individual who
21	is employee of a Federal agency, may be
22	assigned to serve on the Board without re-
23	imbursement to the Federal agency.

1	(8) Compensation.—Non-Federal members of
2	the Board shall be compensated at the rate pre-
3	scribed for Level IV of the Executive Schedule.
4	(d) Duties and Responsibilities of the Chair-
5	PERSON.—The Chairperson shall be responsible on behalf
6	of the Board for the executive and administrative oper-
7	ation of the Board.
8	(e) Functions.—The Board shall—
9	(1) prescribe the form of cost reimbursement
10	agreements under section 504(c), offer such agree-
11	ments to agencies that have stewardship responsi-
12	bility, and execute such agreements on behalf of the
13	United States;
14	(2) evaluate the adequacy of the Trust Fund
15	and adjust the level of the assessment as authorized
16	under section 506(b);
17	(3) prescribe payment schedules for public
18	claims under section 507(b) and monitoring and re-
19	mediation standards under section 507(e)(1);
20	(4) determine, as provided in section 509, the
21	extent to which—
22	(A) public claims filed with the Board are
23	payable under section 505(a)(1) in accordance
24	with applicable payment schedules; and

1	(B) petitions to cover monitoring and re-
2	mediation costs incurred at storage facilities are
3	payable under section $505(a)(2)$.
4	(5) determine whether monitoring and remedi-
5	ation is required at a certified post-closure storage
6	facility prescribed under section 507(c);
7	(6) make payments under cost reimbursement
8	agreements (including payments for monitoring and
9	remediation costs) under section 504(c); and
10	(7) exercise such other authorities as may be
11	necessary or appropriate to carry out its functions
12	under the preceding paragraphs of this subsection or
13	other provisions of this title, including assignment or
14	employees from other Federal agencies, employment
15	of personnel, and entering into contracts.
16	(f) Powers.—The Board has the authority to—
17	(1) prescribe, by rule or order, such require
18	ments for monitoring certified post-closure storage
19	facilities and for making such inspections and re-
20	ports as may be necessary or appropriate to carry
21	out this title;
22	(2) enter onto the premises or property of any
23	storage facility to carry out this title;

1	(3) issue an order requiring a person to comply
2	with order, rule or requirement that the Board has
3	established under the Act;

- (4) commence a civil action in the United States District Court to recover from any project operator any fees or assessments not paid when due, after notice and an opportunity to cure any deficiency within 30 days of such notice;
- (5) bring an action against any person in the United States District Court to enforce the provisions of this title or rules or orders thereunder, and to obtain appropriate injunctive or other relief; and
- (6) seek civil or criminal penalties for violations of provisions of this title, as provided under subsection (h).

(g) TECHNICAL ADVISORY COMMITTEE.—

- (1) ESTABLISHMENT.—The Board shall establish an independent technical advisory committee composed of 7 members, each of whom has demonstrated knowledge and expertise with respect to engineering, geological, or environmental matters related to the storage of carbon dioxide in suitable underground formations.
- (2) Function.—The committee established under paragraph (1) shall provide information, rec-

1	ommendations and guidance to the Board on tech-
2	nical matters related to—
3	(A) the amount and duration of the assess-
4	ment that a project operator of a storage facil-
5	ity should pay under section 506(b) to cover fu-
6	ture anticipated payments from the Trust Fund
7	for the purposes described under section 507;
8	(B) the profile of reasonably foreseeable
9	risks that the Board must develop for each type
10	or class of geological formation under section
11	506(b)(4)(B);
12	(C) payment schedules for determining the
13	nature and amount of compensation that the
14	Board will pay from the Trust Fund for public
15	claims, as provided under section 507(b);
16	(D) standards for determining whether and
17	to the extent that monitoring and remediation
18	will be required for carbon dioxide injected at ϵ
19	certified post-closure storage facility, as pro-
20	vided under section 507(c); and
21	(E) other determinations or actions that
22	the Board must perform to carry out its re-
23	sponsibilities and duties under this title.
24	(3) Additional research.—The committee
25	established under paragraph (1) shall advise the

- 1 Board as to additional research and technical stud-
- 2 ies that may be necessary to perform the functions
- described under paragraph (2).
- 4 (h) Penalties.—
- 5 (1) CIVIL PENALTIES.—Any person that know-6 ingly violates any provision of this title or any rule 7 or order thereunder shall be subject to a civil pen-
- 8 alty of \$10,000 per violation.
- 9 (2) Criminal Penalties.—Any person that
- 10 knowingly and willfully violates any provision of this
- title or any rule or order thereunder shall be subject
- to a fine of \$50,000 or imprisonment for a term of
- 2 years, or both.
- 14 (i) Public Comment and Judicial Review.—In
- 15 prescribing rules of general applicability under this title,
- 16 the Secretary and the Board shall provide an opportunity
- 17 for public notice and comment. Those rules shall be sub-
- 18 ject to review by the United States Courts of Appeal in
- 19 accordance with chapter 158 of title 28, United States
- 20 Code. All other agency actions under this title shall be re-
- 21 viewed in accordance with chapter 7 of title 5, United
- 22 States Code.
- 23 SEC. 509. ADJUDICATION OF PUBLIC CLAIMS.
- 24 (a) Public Claims Office.—

- 1 (1) ESTABLISHMENT.—There is established 2 within the Department of Energy an Office of Public 3 Claims, which shall be composed of administrative 4 law judges who are responsible for adjudicating pub-5 lie claims filed with the Board under section 505(a).
 - (2) APPOINTMENT.—After the first storage facility receives a certificate of completion from the appropriate regulatory authority, the Chairperson of the Board shall begin to appoint as many administrative law judges as are necessary to adjudicate public claims pending before the Board and may select for appointment qualified administrative law judges who are contracted from the Department of Energy or other Federal agencies.
 - (3) INDEPENDENCE FROM BOARD.—The administrative law judges within the Office of Public Claims shall establish and implement procedures to ensure the separation and independence of the Office of Public Claims from the Board.
- 20 (b) ADJUDICATORY PROCEDURES.—In adjudicating
 21 each public claim or petition filed with the Board under
 22 section 505(a), the administrative law judge shall—
- 23 (1) in the case of public claims made with re-24 spect to certified post-closure storage facilities under 25 section 505(a)(1), apply the appropriate payment

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1	schedules for compensation that the Board has es-
2	tablished under section 507(b);
3	(2) in the case of petitions for the reimburse-
4	ment of monitoring and remediation costs incurred
5	at storage facilities under section 505(a)(2), deter-
6	mine the reasonable costs for performing the appro-
7	priate standards established for monitoring and re-
8	mediation under section 507(c); and
9	(3) issue a decision that is determined on the
10	record after opportunity for an agency hearing in ac-
11	cordance with sections 554, 555, and 556 of title 5,
12	United States Code.
13	(c) Appeals.—An aggrieved person or the Board
14	may file an appeal of a decision issued under subsection
15	(b) to the United States Court of Federal Claims. The
16	appeal of such a decision shall be—
17	(1) filed within 60 days after the date that the
18	decision was issued by the administrative law judge;
19	and
20	(2) reviewed in accordance with chapter 7 of
21	title 5, United States Code.
22	(d) Final Orders.—
23	(1) In general.—A decision issued under sub-
24	section (b) shall become a final order of the Board
25	60 days after the issuance of the decision unless

- within such 60-day period an aggrieved person or the Board files an appeal of the decision under subsection (c).
- 4 (2) JUDICIAL REVIEW.—A decision for which 5 an appeal is not filed within the 60-day period pro-6 vided under subsection (c) becomes a final order 7 that is not subject to judicial review by any court or 8 tribunal.
- 9 (e) BOARD ACTION.—The Board shall, as expedi-10 tiously as practicable, make payment to each claimant and 11 perform other actions that may be required by a final 12 order issued under subsection (d).

13 SEC. 510. FIRST MOVER PROJECTS.

14 (a) Project Selection.—

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- (1) In General.—The Secretary shall competitively select 10 carbon capture and geological sequestration projects as first mover projects in accordance with the criteria prescribed in paragraph (2). Each first mover project selected under this paragraph shall be indemnified from liabilities arising from the injection of carbon dioxide into the storage facility in accordance with an agreement executed under subsection (b).
 - (2) ELIGIBILITY CRITERIA.—A carbon capture and geological sequestration project shall be eligible

1	for selection as a first mover project under para-
2	graph (1) if the project—
3	(A) demonstrates the commercial applica-
4	tion of an integrated system for the capture, in-
5	jection, monitoring, and long term geological
6	storage of carbon dioxide;
7	(B) injects at least 1,000,000 tons of car-
8	bon dioxide each year into a proposed geological
9	storage site that is capable of long-term storage
10	of the injected carbon dioxide, as provided
11	under paragraph (3);
12	(C) possesses the land or interests in land
13	necessary for the injection and storage of the
14	carbon dioxide at the geological storage site;
15	(D) obtains all necessary permits for the
16	injection of carbon dioxide into a suitable un-
17	derground formation and complies with the con-
18	ditions of any necessary permits that protect
19	health, environment and safety; and
20	(E) commits to maintain the financial pro-
21	tection for remediation and civil claims, as de-
22	scribed in subsection (b)(2).
23	(3) Phased development of project.—A
24	project may satisfy the annual carbon dioxide injec-

1	tion requirement of paragraph (2)(B) through a
2	phased development, so long as—

- (A) the Secretary establishes a legally binding schedule for the phase-in of the project; and
- (B) such schedule requires the project to achieve an annual injection level of 1,000,000 tons by no later than January 1, 2020.

(b) Indemnification Agreements.—

- (1) IN GENERAL.—Notwithstanding section 1341 of title 31, United States Code, but subject to limitations in appropriation Acts, the Secretary shall execute indemnification agreements for the 10 first mover projects that the Secretary has selected under subsection (a). Each agreement executed under this paragraph shall indemnify owners and operators of the first mover project for all or part of the costs incurred to satisfy remediation and civil claims (whenever made) that arise from injection of carbon dioxide into a storage facility, as determined by the Secretary in accordance with the requirements of this section.
- (2) Scope of indemnification.—The owners and operators of a first mover project shall maintain financial protection in a form and in an amount ac-

- ceptable to the Secretary. The indemnification authorized under paragraph (1) shall apply to the costs incurred for remediation and civil claims that are in excess of the amount of liability covered by financial protection maintained for the project under para-
- 6 graph (1).
- 7 (3) Conditions and requirements.—The 8 Secretary may impose such conditions on indem-9 nification agreements executed under paragraph (1) 10 as may be necessary or appropriate to protect the fi-11 nancial interest of the United States, including a re-12 quirement to limit the indemnification provided to 13 each first mover project under this section during 14 the stewardship period to the extent that the Sec-15 retary determines that potential long-term liabilities 16 can be adequately addressed through the coverage 17 provided by the Trust Fund under other provisions 18 of this title.
- 19 (c) Consolidation of Environmental Re-20 Views.—In performing environmental reviews that may 21 apply to an indemnification agreement for a particular 22 first mover project under subsection (b), the Secretary 23 shall rely on prior environmental reviews that were per-24 formed to assess other major Federal actions relating to 25 the development or operation of that first mover project

- 1 under 102 of the National Environmental Policy Act of
- 2 1969 (42 U.S.C. 4332).
- 3 SEC. 511. RELATIONSHIP TO OTHER LAW.
- 4 (a) Prior to Stewardship Period.—This title
- 5 does not affect the application of any Federal or State
- 6 law to any storage facility for which a regulatory authority
- 7 has not issued certificate of completion.
- 8 (b) During the Stewardship Period.—This title
- 9 does not affect the application to the Trust Fund, the
- 10 Board or any stewardship agency of any Federal or State
- 11 environmental law with respect to the injection of carbon
- 12 dioxide at any certified post-closure facility.
- 13 (c) STATE STEWARDSHIP LAWS.—This title does not
- 14 affect the application of any State law related to geologic
- 15 sequestration trust funds that may apply to a storage fa-
- 16 cility during the operational or post-injection phase prior
- 17 to the stewardship period.

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