113TH CONGRESS
2D SESSION

S. 2152

To direct Federal investment in carbon capture and storage and other clean coal technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 25, 2014

Ms. HEITKAMP introduced the following bill; which was read twice and referred to the Committee on Finance

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A BILL

To direct Federal investment in carbon capture and storage and other clean coal technologies, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''Advanced Clean Coal Technology Investment in Our Nation Act of 2014'' or the ''ACCTION Act of 2014''.

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

SEC. 2. FINDINGS.

Congress finds that—

(1) the President believes that the United States energy policy must have ''an all-of-the-above strategy for the 21st century that develops every source of American-made energy'';

(2) according to the Energy Information Administration, 37 percent of all energy generated in the United States comes from coal and by 2040, coal will still account for 32 percent of energy generation in the United States;

(3) the United States has enough recoverable coal reserves to last at least another 250 years;

(4) as the world becomes increasingly carbon constrained, coal-fired power plants must increasingly be integrated with carbon capture and storage systems;

(5) efficiency improvements to the coal fleet will decrease carbon emissions and use less coal while providing the same power;

(6) the potential to increase efficiency is evident in the current fleet of power plants in the United States, as the top 10 percent of coal plants have efficiencies as high as 37 percent while the average plant has an efficiency of 32 percent;

(7) efficiencies as high as 48 percent may be attained with ultrasupercritical coal-fired power plants;

(8) replacing the average subcritical coal-fired power plant with a supercritical or ultrasupercritical coal-fired power plant would reduce carbon emissions by 18 to 22 percent per megawatt hour of energy generated; and

(9) the coal industry is a significant source of jobs in the United States as in 2012 alone, coal was responsible for 137,650 jobs for coal miners, 92,472 jobs for operator employees, and 45,178 jobs for contractors.

TITLE I—FEDERAL INVESTMENT IN CLEAN COAL TECHNOLOGIES

SEC. 101. LARGE-SCALE CARBON STORAGE PROGRAM.

(a) IN GENERAL.—Subtitle F of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16291 et seq.) is

amended by inserting after section 963 (42 U.S.C. 16293) the following:

"SEC. 963A. LARGE-SCALE CARBON STORAGE PROGRAM.

"(a) DEFINITIONS.—In this section:

"(1) INDUSTRIAL SOURCE.—The term 'industrial source' means any source of carbon dioxide that is not naturally occurring.

"(2) LARGE-SCALE.—The term 'large-scale' means the injection from industrial sources into a geological formation of—

"(A) over 1,000,000 tons of carbon dioxide each year; or

"(B) carbon dioxide to a scale that demonstrates the ability to inject and sequester several million metric tons of industrial source carbon dioxide for a large number of years.

"(3) SECRETARY CONCERNED.—The term 'Secretary concerned' means—

"(A) the Secretary of Agriculture (acting through the Chief of the Forest Service), with respect to National Forest System land; and

"(B) the Secretary of the Interior, with respect to land managed by the Bureau of Land Management (including land held for the benefit of an Indian tribe).

''(b) PROGRAM.—The Secretary shall carry out a program to demonstrate the integration of systems for the capture, transportation, and injection of carbon dioxide from industrial sources, either for the purpose of long-term geological storage or enhanced oil recovery at a commercial scale.

''(c) AUTHORIZED ASSISTANCE.—

''(1) IN GENERAL.—In carrying out the program, the Secretary may enter into cooperative agreements to provide financial and technical assistance to up to 10 large-scale geological storage or enhanced oil recovery projects.

''(2) LIMITATION.—Not fewer than 3 of the 10 projects selected shall be large-scale projects that undertake site characterization and permitting to qualify the projects as ready for long-term saline storage sites.

''(d) PROJECT SELECTION.—The Secretary shall competitively select recipients of cooperative agreements under this section from among applicants that—

''(1) provide the Secretary with sufficient geological site information (including hydrogeological and geophysical information) to establish that the proposed geological formation is capable of use for enhanced oil recovery and, in the case of geological

storage, is capable of long-term storage of the injected carbon dioxide, including—

"(A) the location, extent, and storage capacity of the geological storage unit at the site into which the carbon dioxide will be injected;

"(B) the principal potential modes of geomechanical failure in the geological storage unit;

"(C) the ability of the geological storage unit to retain injected carbon dioxide;

"(D) the measurement, monitoring, and verification requirements necessary to ensure adequate information on the operation of the geological storage unit during and after the injection of carbon dioxide; and

"(E) a study and report on the rate of injection of carbon dioxide from power plants (based on operating the plant on a 24-hours-a-day, 7-days-a-week, and 365-days-a-year basis over several decades) necessary to avoid—

"(i) imbalances of carbon dioxide; and

"(ii) making the proposed geological formation of the site into which the carbon dioxide will be injected unusable, unstable,

or such that there would be forced stoppages of injection;

''(2) have legal authority to use the land or interests in land necessary for—

''(A) the injection of the carbon dioxide at the proposed geological storage unit or enhanced oil recovery site; and

''(B) the storage, closure, monitoring, and long-term stewardship of the geological storage unit for geological storage of carbon dioxide; and

''(3) sequester not fewer than 500,000 metric tons of carbon dioxide in 1 contiguous geographic and geologic formation.

''(e) TERMS AND CONDITIONS.—The Secretary shall condition receipt of financial assistance pursuant to a cooperative agreement under this section on the recipient agreeing—

''(1) to comply with all applicable Federal and State laws (including regulations), including—

''(A) the requirements of the underground injection control program under part C of the Safe Drinking Water Act (42 U.S.C. 300h et seq.) (referred to in this section as the 'UIC program'); and

''(B) any other Federal and State requirements to protect drinking water supplies; and

''(2) in the case of industrial sources subject to the Clean Air Act (42 U.S.C. 7401 et seq.), to inject only carbon dioxide captured from industrial sources in compliance with that Act.

''(f) INDEMNIFICATION AGREEMENTS FOR GEOLOGICAL STORAGE.—

''(1) DEFINITION OF LIABILITY.—In this subsection, the term 'liability' means any legal liability for—

''(A) bodily injury, sickness, disease, or death;

''(B) loss of or damage to property, or loss of use of property; or

''(C) injury to or destruction or loss of natural resources, including fish, wildlife, and drinking water supplies.

''(2) AGREEMENTS.—Not later than 1 year after the date of the receipt by the Secretary of a completed application for assistance authorized under subsection (c), the Secretary may agree to indemnify and hold harmless the recipient of a cooperative agreement under this section from liability arising out of or resulting from a demonstration

project in excess of the amount of liability covered by financial protection maintained by the recipient in accordance with the requirements of the UIC program.

''(3) EXCEPTION FOR GROSS NEGLIGENCE AND INTENTIONAL MISCONDUCT.—Notwithstanding paragraph (1), the Secretary may not indemnify the recipient of a cooperative agreement under this section from liability arising out of conduct of a recipient that is grossly negligent or that constitutes intentional misconduct.

''(4) COLLECTION OF FEES.—

''(A) IN GENERAL.—The Secretary shall collect a fee from any person with whom an agreement for indemnification is executed under this subsection in an amount that is equal to the net present value of payments made by the United States to cover liability under the indemnification agreement.

''(B) AMOUNT.—The Secretary shall establish, by regulation, criteria for determining the amount of the fee, taking into account—

''(i) the likelihood of an incident resulting in liability to the United States under the indemnification agreement; and

"(ii) other factors pertaining to the hazard of the indemnified project.

"(C) USE OF FEES.—Fees collected under this paragraph shall be deposited in the Treasury and credited to miscellaneous receipts.

"(5) CONTRACTS IN ADVANCE OF APPROPRIATIONS.—

"(A) IN GENERAL.—Subject to subparagraph (B), the Secretary may enter into agreements of indemnification under this subsection in advance of appropriations and incur obligations without regard to section 1341 of title 31, United States Code (commonly known as the 'Anti-Deficiency Act'), or section 11 of title 41, United States Code (commonly known as the 'Adequacy of Appropriations Act').

"(B) LIMITATION.—The amount of indemnification under this subsection shall not exceed $10,000,000,000 (adjusted not less than once during each 5-year period following the date of enactment of this section, in accordance with the aggregate percentage change in the Consumer Price Index since the previous adjustment under this subparagraph), in the aggregate, for all persons indemnified in connection

with an agreement and for each project, including such legal costs as are approved by the Secretary.

''(6) CONDITIONS OF AGREEMENTS OF INDEMNIFICATION.—

''(A) IN GENERAL.—The agreement shall provide that, if the Secretary makes a determination that there is a substantial likelihood that the United States will be required to make indemnity payments under the agreement, the Attorney General—

''(i) shall collaborate with the recipient of an award under this subsection; and

''(ii) may—

''(I) approve the payment of any claim under the agreement of indemnification;

''(II) appear on behalf of the recipient;

''(III) take charge of an action; and

''(IV) settle or defend an action.

''(B) SETTLEMENT OF CLAIMS.—

''(i) IN GENERAL.—The Attorney General shall have final authority on behalf

of the United States to settle or approve the settlement of any claim under this subsection on a fair and reasonable basis with due regard for the purposes of this subsection.

''(ii) EXPENSES.—The settlement shall not include expenses in connection with the claim incurred by the recipient.

''(g) FEDERAL LAND.—

''(1) IN GENERAL.—The Secretary concerned may authorize the siting of a project on Federal land under the jurisdiction of the Secretary concerned in a manner consistent with applicable laws and land management plans and subject to such terms and conditions as the Secretary concerned determines to be necessary.

''(2) FRAMEWORK FOR GEOLOGICAL CARBON SEQUESTRATION ON PUBLIC LAND.—In determining whether to authorize a project on Federal land, the Secretary concerned shall take into account the framework for geological carbon sequestration on public land prepared in accordance with section 714 of the Energy Independence and Security Act of 2007 (Public Law 110–140; 121 Stat. 1715).

''(h) ACCEPTANCE OF TITLE AND LONG-TERM MONITORING.—

''(1) IN GENERAL.—As a condition of a cooperative agreement under this section, the Secretary may accept title to, or transfer of administrative jurisdiction from another Federal agency over, any land or interest in land necessary for the monitoring, remediation, or long-term stewardship of a project site.

''(2) LONG-TERM MONITORING ACTIVITIES FOR GEOLOGICAL STORAGE.—After accepting title to, or transfer of, a site closed in accordance with this section, the Secretary shall monitor the site and conduct any remediation activities to ensure the geological integrity of the site and prevent any endangerment of public health or safety.

''(3) FUNDING.—There is appropriated to the Secretary, out of funds of the Treasury not otherwise appropriated, such sums as are necessary to carry out paragraph (2).

''(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section such sums as are necessary.''.

SEC. 102. RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAMS.

(a) IN GENERAL.—Section 962 of the Energy Policy Act of 2005 (42 U.S.C. 16292) is amended—

(1) in subsection (a)—

(A) in paragraph (10), by striking ''and'' at the end;

(B) in paragraph (11), by striking the period at the end and inserting ''; and''; and

(C) by adding at the end the following:

''(12) specific additional programs to address water use and reuse;

''(13) the testing, including the construction of testing facilities, for high temperature materials for use in advanced systems for combustion or use of coal; and

''(14) innovations to application of existing coal conversion systems designed to increase efficiency of conversion, flexibility of operation, and other modifications to address existing usage requirements.'';

(2) by redesignating subsections (b) through (d) as subsections (c) through (e), respectively;

(3) by inserting after subsection (a) the following:

''(b) TRANSFORMATIONAL COAL TECHNOLOGY PROGRAM.—

''(1) IN GENERAL.—As part of the program established under subsection (a), the Secretary may carry out a program designed to undertake research, development, and demonstration of technologies, including the accelerated development of—

''(A) chemical looping technology;

''(B) supercritical carbon dioxide power generation cycles;

''(C) pressurized oxycombustion, including new and retrofit technologies; and

''(D) other technologies that are characterized by the use of—

''(i) alternative energy cycles;

''(ii) thermionic devices using waste heat;

''(iii) fuel cells;

''(iv) replacement of chemical processes with biotechnology;

''(v) nanotechnology;

''(vi) new materials in applications (other than extending cycles to higher temperature and pressure), such as membranes or ceramics;

''(vii) carbon utilization (other than enhanced oil recovery), such as construc-

tion materials, using low quality energy to reconvert back to a fuel, or manufactured food;

''(viii) advanced gas separation concepts; and

''(ix) other technologies, including—

''(I) modular, manufactured components; and

''(II) innovative production or research techniques, such as using 3–D printer systems, for the production of early research and development prototypes.

''(2) COST SHARE.—In carrying out the program described in paragraph (1), the Secretary may enter into partnerships with private entities to share the costs of carrying out the program.''; and

(4) in subsection (c) (as so redesignated)—

(A) by striking paragraph (1) and inserting the following:

''(1) IN GENERAL.—In carrying out programs authorized by this section, during each of calendar years 2015, 2017, 2020, and annually thereafter, the Secretary shall identify cost and performance goals for coal-based technologies that would permit

the continued cost-competitive use of coal for the production of electricity, chemical feedstocks, transportation fuels, and other marketable products.''; and

(B) in paragraph (2), by striking ''date of enactment of this Act'' each place it appears and inserting ''date of enactment of the Advanced Clean Coal Technology Investment in Our Nation Act of 2014''.

(b) ADVISORY COMMITTEE; AUTHORIZATION OF APPROPRIATIONS.—Section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293) is amended—

(1) in subsection (c), by striking paragraph (6) and inserting the following:

''(6) ADVISORY COMMITTEE.—

''(A) IN GENERAL.—Subject to subparagraph (B), the Secretary shall establish an advisory committee—

''(i) to undertake, not less frequently than once every 3 years, a review and prepare a report on the progress being made by the Department of Energy to achieve the goals described in subsections (a) and (b) of section 962 and subsection (b) of this section; and

"(ii) to assess and provide recommendations on how the capture of carbon from other fossil fuels could be supported through the objectives described in subsection (b).

"(B) MEMBERSHIP REQUIREMENTS.—Members of the advisory committee under subparagraph (A) shall be appointed by the President."; and

(2) by striking subsection (d) and inserting the following:

"(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out section 962 and this section—

"(1) $1,654,000,000 for fiscal years 2015 through 2018;

"(2) $5,283,000,000 for fiscal years 2019 through 2025; and

"(3) $3,300,000,000 for fiscal years 2026 through 2035.".

(c) COST SHARING REDUCTION.—Section 988(b) of the Energy Policy Act of 2005 (42 U.S.C. 16352(b)) is amended by striking paragraph (3) and inserting the following:

''(3) REDUCTION.—The Secretary shall reduce or eliminate the requirement of paragraph (1) for a research and development activity of an applied nature if the Secretary—

''(A) is petitioned for a reduction by a non-Federal source; and

''(B) determines that the reduction is necessary and appropriate to achieve the purposes and goals of—

''(i) this Act; and

''(ii) the program or activity for which the research or development activity is being undertaken.''.

SEC. 103. INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM.

(a) IN GENERAL.—Section 1703 of the Energy Policy Act of 2005 (42 U.S.C. 16513) is amended by adding at the end the following:

''(f) OTHER FORMS OF FEDERAL SUPPORT ALLOWED.—An eligible project that is eligible for or in receipt of other forms of Federal financial assistance shall not be precluded from receiving a loan guarantee made pursuant to this section.

''(g) TIMELINE FOR LOAN GUARANTEE APPROVAL FOR CERTAIN PROJECTS.—Notwithstanding any other

provision of law, not later than 2 years after the date of enactment of the Advanced Clean Coal Technology Investment in Our Nation Act of 2014, the Secretary shall—

''(1) give final approval to applications for loan guarantees under subsection (a) for projects described in subsection (b)(2); and

''(2) make loans for those projects in amounts equal to $2,000,000,000.''.

(b) CONFORMING AMENDMENTS.—

(1) Title III of division C of the Omnibus Appropriations Act, 2009 (Public Law 111–8; 123 Stat. 619) is amended in the matter under the heading ''TITLE 17 INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM'', by striking the seventh, eighth, and ninth provisos.

(2) The Supplemental Appropriations Act, 2009 (Public Law 111–32) is amended by striking section 408 (123 Stat. 1878).

SEC. 104. COORDINATION OF CLEAN COAL GENERATING PROJECTS.

(a) DEFINITIONS.—In this section, the term ''eligible clean coal generating projects'' means any project undertaken to install and operate an advanced carbon capture and storage technology at a new or existing steam generating unit.

(b) LEAD AGENCY.—The Department of Energy shall be the lead agency for the purposes of coordinating all requirements under Federal law with respect to eligible clean coal generating projects, including any requirements of—

(1) the Clean Air Act (42 U.S.C. 7401 et seq.);

(2) the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.);

(3) the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.);

(4) the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.); and

(5) the Safe Drinking Water Act (42 U.S.C. 300f et seq.).

(c) SCHEDULE.—In carrying out subsection (b), the Secretary of Energy shall establish a schedule for all Federal authorizations with respect to each eligible project, including by—

(1) setting binding intermediate milestones and deadlines to ensure expeditious completion of all proceedings and final action on all Federal authorizations relating to the eligible project;

(2) requiring that all permit decisions and related environmental reviews under applicable Federal law shall be completed not later than 1 year after

the date on which a complete application for each environmental review is submitted, or as soon as practicable thereafter; and

(3) coordinating, to the maximum extent practicable, any State permitting and environmental requirements.

(d) MEMORANDA OF UNDERSTANDING.—To streamline and expedite review of Federal authorizations for eligible clean coal generating projects, the Secretary of Energy shall—

(1) enter into memoranda of understanding with applicable Federal agencies;

(2) facilitate a pre-application review process with applicable Federal agencies; and

(3) consolidate all environmental reviews of the eligible clean coal generating project into a single environmental review document.

(e) JUDICIAL REVIEW.—With respect to an application for Federal authorization relating to an eligible clean coal generating project, the applicable Federal circuit court may review and remedy—

(1) any failure by a Federal agency to complete action on the application by the date that is 1 year after the date on which the complete application was submitted to the agency; and

(2) any issuance of an action or order by a Federal agency with respect to the application that is inconsistent with applicable Federal law.

TITLE II—FEDERAL INCENTIVES FOR PRIVATE INVESTMENT IN CLEAN COAL TECHNOLOGIES

SEC. 201. SEVEN-YEAR AMORTIZATION FOR CERTAIN SYSTEMS INSTALLED ON COAL-FIRED ELECTRIC GENERATION UNITS.

(a) IN GENERAL.—Subsection (d) of section 169 of the Internal Revenue Code of 1986 is amended by adding at the end the following new paragraph:

''(6) SPECIAL RULE FOR SYSTEMS INSTALLED ON COAL-FIRED ELECTRIC GENERATION UNITS.—

''(A) IN GENERAL.—Any mechanical or electronic system—

''(i) which is installed on a coal-fired electric generation unit after the date of the enactment of this paragraph, and

''(ii) which reduces carbon dioxide emissions per net megawatt hour of electricity generation by 1 or more of the means described in subparagraph (B) or any other means,

shall be treated for purposes of this section as a new identifiable treatment facility which abates or controls atmospheric pollution or contamination by removing, altering, disposing, storing, or preventing the creation or emission of pollutants, contaminants, wastes, or heat. Paragraph (1)(C) of this subsection, and subsection (e), shall not apply to any system which is so treated.

''(B) MEANS FOR REDUCING EMISSIONS.—The means described in this subparagraph are—

''(i) optimizing combustion,

''(ii) optimizing sootblowing and heat transfer,

''(iii) upgrading steam temperature control capabilities,

''(iv) reducing exit gas temperatures (air heater modifications),

''(v) predrying low rank coals using power plant waste heat,

''(vi) modifying steam turbines or change the steam path/blading,

''(vii) replacing single speed motors with variable speed drives for fans and pumps, and

''(viii) improving operational controls, including neural networks.

''(C) SPECIAL RULE FOR MINIMUM TAX.—Section 56(a)(5) shall not apply to property to which this paragraph applies.''.

(b) EFFECTIVE DATE.—The amendment made by this section shall apply to property placed in service after the date of the enactment of this Act.

SEC. 202. CREDIT FOR CARBON SEQUESTRATION FROM COAL FACILITIES.

(a) IN GENERAL.—Subpart E of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by inserting after section 48D the following new section:

''SEC. 48E. QUALIFYING CARBON DIOXIDE CAPTURE, TRANSPORT, AND STORAGE EQUIPMENT CREDIT.

''(a) GENERAL RULE.—For purposes of section 46, the qualifying carbon dioxide capture, transport, and storage equipment credit for any taxable year is an amount equal to 30 percent of the qualified investment for such taxable year.

''(b) QUALIFIED INVESTMENT.—

''(1) IN GENERAL.—For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible carbon dioxide capture, transport, and storage property placed in service by the taxpayer during such taxable year which is part of a qualifying clean coal project—

''(A)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

''(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

''(B) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

''(2) SPECIAL RULE FOR CERTAIN SUBSIDIZED PROPERTY.—Rules similar to section 48(a)(4) shall apply for purposes of this section.

''(3) CERTAIN QUALIFIED PROGRESS EXPENDITURES RULES MADE APPLICABLE.—Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

''(c) DEFINITIONS.—For purposes of this section—

''(1) COAL.—The term 'coal' means bituminous coal, subbituminous coal, and lignite.

''(2) ELIGIBLE CARBON DIOXIDE CAPTURE, TRANSPORT, AND STORAGE PROPERTY.—The term 'eligible carbon dioxide capture, transport, and storage property' means any property—

''(A) which is used to capture, transport, or store carbon dioxide emitted at a qualifying clean coal project, including equipment used to separate and pressurize carbon dioxide for transport (including equipment to operate such equipment),

''(B)(i) the construction, reconstruction, or erection of which is completed by the taxpayer, or

''(ii) which is acquired by the taxpayer if the original use of such property commences with the taxpayer, and

''(C) with respect to which depreciation (or amortization in lieu of depreciation) is allowable.

''(3) QUALIFIED POLYGENERATION PLANT.—The term 'qualified polygeneration plant' means a plant that produces 2 or more marketable products,

including electricity, chemicals, liquid or gaseous fuels, and carbon dioxide for beneficial use or sale.

''(4) QUALIFYING CLEAN COAL PROJECT.—

''(A) IN GENERAL.—The term 'qualifying clean coal project' means any project if such project—

''(i) uses—

''(I) gasification technology (as defined in section 48B(c)(2)), or

''(II) coal as not less than 75 percent of the project fuel source,

to produce electricity or is a polygeneration plant, and

''(ii)(I) is a new project which is designed to meet the requirements of subparagraph (B), or

''(II) consists of retrofits to existing equipment such that the project meets the requirements of subparagraph (B).

''(B) REQUIREMENTS.—

''(i) IN GENERAL.—A project shall meet the emission requirement of clause (ii) and the carbon capture requirement of clause (iii).

''(ii) EMISSION REQUIREMENT.—The requirement of this clause is met if the project is designed—

''(I) to emit carbon dioxide at an average annual rate of less than 1,100 pounds per net megawatt hour of electrical generation, or

''(II) such that the carbon dioxide emissions of such project are no greater than half of the average carbon dioxide emissions for facilities producing electricity during 2005 from the same coal rank as such project, as determined under regulations prescribed by the Secretary in consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency.

''(iii) CARBON CAPTURE REQUIREMENT.—The requirement of this clause is met—

''(I) if such unit is among the first 1,000 megawatts of electric generation units certified by the Secretary under subsection (e), to cap-

ture and sequester not less than 500,000 metric tons per year of carbon dioxide,

"(II) if such unit is among the next 3,000 megawatts of electric generation units certified by the Secretary under subsection (e), to capture and sequester not less than 1,000,000 metric tons per year of carbon dioxide, and

"(III) for any other unit, to capture and sequester not less than 2,000,000 metric tons per year of carbon dioxide.

"(d) AGGREGATE CREDITS.—

"(1) IN GENERAL.—No credit shall be allowed under this section with respect to any qualifying clean coal project unless such project is certified by the Secretary under subsection (e).

"(2) LIMITATION ON PROJECTS CERTIFIED.—The Secretary may certify under subsection (e) no more than—

"(A) 20 projects described in subsection (c)(4)(A)(ii)(I), and

''(B) 20 projects described in subsection (c)(4)(A)(ii)(II).

''(e) CERTIFICATION.—

''(1) CERTIFICATION PROCESS.—The Secretary, in consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, shall establish a certification process to determine if a project meets all criteria and other requirements to be recognized as a qualifying clean coal project.

''(2) FEEDSTOCK REQUIREMENTS.—After the date of publication by the Secretary of the final certification process referred to in paragraph (1), the Secretary shall allocate the limitation in subsection (d)(2) in equal amounts among—

''(A) projects using bituminous coal as a primary feedstock,

''(B) projects using subbituminous coal as a primary feedstock, and

''(C) projects using lignite as a primary feedstock.

''(3) REDISTRIBUTION.—The Secretary may reallocate credits if the Secretary determines that there is an insufficient quantity of qualifying applications for certification, pending at the time of re-

view, to comply with the feedstock requirements of paragraph (2). The Secretary may conduct an additional program for applications for certification and reallocate available credits without regard to the feedstock requirement which was not satisfied as a result of insufficient applications for certification.

''(4) REQUIREMENTS FOR APPLICATIONS FOR CERTIFICATION.—An application for certification shall contain such information as the Secretary may require in order to make a determination to accept or reject the application and establish applicable credit entitlement. Any information contained in the application shall be protected as provided in section 552(b)(4) of title 5, United States Code.

''(f) DENIAL OF DOUBLE BENEFIT.—No credit shall be allowed under this section for any property for which credit is allowed under sections 48A, 48B, or 48C.''.

(b) CONFORMING AMENDMENTS.—

(1) Section 46 of such Code (relating to amount of credit) is amended by striking ''and'' at the end of paragraph (5), by striking the period at the end of paragraph (6) and inserting '', and'', and by adding at the end the following new paragraph:

''(7) the qualifying carbon dioxide capture, transport, and storage equipment credit.''.

(2) Subparagraph (C) of section 49(a)(1) of such Code is amended by striking ''and'' at the end of clause (v), by striking the period at the end of clause (vi) and inserting '', and'', and by adding after clause (vi) the following new clause:

''(vii) the basis of any qualifying carbon dioxide capture, transport, and storage equipment under section 48E.''.

(3) The table of sections for subpart E of part IV of subchapter A of chapter 1 of such Code is amended by inserting after the item relating to section 48D the following new item:

''Sec. 48E. Qualifying carbon dioxide capture, transport, and storage equipment credit.''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to periods after the date of the enactment of this Act under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

SEC. 203. VARIABLE PRICE SUPPORT FOR CARBON DIOXIDE SEQUESTRATION.

(a) DEFINITIONS.—In this section:

(1) CARBON DIOXIDE PRICE DIFFERENCE.—The term ''carbon dioxide price difference'' means

the amount calculated in accordance with subsection (f)(1).

(2) DESIGN CAPACITY.—The term ''design capacity'' means a project that has the capacity to capture—

(A) not fewer than 3,000,000 tons of carbon dioxide annually; or

(B) fewer than 3,000,000 tons of carbon dioxide annually if agreed to by the Secretary and project owner.

(3) ELIGIBLE PROJECT.—The term ''eligible project'' means a project that—

(A) captures and sells carbon dioxide that is used for enhanced recovery and generates electricity or gaseous or liquid fuels, or is a qualified polygeneration plant (as defined in section 48E(c) of the Internal Revenue Code of 1986);

(B) is located in the United States;

(C) uses coal as not less than 75 percent of the project fuel source;

(D) captures not less than 50 percent of carbon dioxide produced by coal conversion;

(E) has reached design capacity; and

(F) has a contract with an enhanced recovery company that is for a period that is equal to or greater than the subsidy period.

(4) ENHANCED RECOVERY.—The term ''enhanced recovery'' means enhanced oil recovery and enhanced gas recovery.

(5) LOWEST BID.—The term ''lowest bid'' means a bid made by an applicant to the program that has the least cost to the Federal Government, as compared to competing bids.

(6) MARKET PRICE OF OIL.—The term ''market price of oil'' means the price of oil as reported in a public oil market index such as the New York Mercantile Exchange.

(7) PROGRAM.—The term ''program'' means the Enhanced Recovery Program established under subsection (b).

(8) QUALIFYING CARBON DIOXIDE.—The term ''qualifying carbon dioxide'' means carbon dioxide that is captured from an eligible project and is eligible for variable price support.

(9) RATE.—The term ''rate'' means the ratio bid by the project owner of the price of carbon dioxide to the market price of oil, and that is used to calculate the synthetic price of carbon dioxide.

(10) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

(11) STRIKE PRICE OF CARBON DIOXIDE.—The term ''strike price of carbon dioxide'' means the price of carbon dioxide bid by the project owner—

(A) below which a project will receive a subsidy; and

(B) above which the project owner will make payments to the Federal Government.

(12) SUBSIDY PERIOD.—The term ''subsidy period'' means the period of time, not to exceed 10 years, bid by the project owner during which the eligible project will be eligible to receive a subsidy under this section.

(13) SYNTHETIC PRICE OF CARBON DIOXIDE.—The term ''synthetic price of carbon dioxide'' means the price of carbon dioxide calculated by multiplying the market price of oil by the rate.

(14) VARIABLE PRICE SUPPORT.—The term ''variable price support'' means financial support provided by the Federal Government in an amount equal to the carbon dioxide price difference for each ton of qualifying carbon dioxide provided directly to the owner of an eligible project selected to receive assistance under this section.

(b) ESTABLISHMENT; PURPOSE.—

(1) IN GENERAL.—There is established in the Department of Energy a variable price support program, to be known as the ''Enhanced Recovery Program'', to accelerate the construction and operation of eligible advanced coal-fueled projects that capture carbon dioxide emissions and sell or use the carbon dioxide for enhanced recovery.

(2) PURPOSE.—The purpose of the program shall be—

(A) to reduce the cost of carbon capture by providing variable price support to carbon capture and sequestration project owners to enable the owner to finance eligible projects;

(B) to advance the development and widespread use of carbon capture technology; and

(C) to increase the domestic production of oil and natural gas in the United States.

(c) VARIABLE PRICE SUPPORT.—

(1) IN GENERAL.—In carrying out the program, the Secretary, in consultation with the Secretary of the Treasury, is authorized to provide variable price support for eligible projects—

(A) for which an application is submitted to the Secretary under subsection (d);

(B) that are selected under the competitive bidding process under subsection (e); and

(C) for which a variable price support agreement to implement the payment terms described in subsections (f) and (g) is executed.

(2) PERIOD.—The Secretary shall provide variable price support to an eligible project under this section for a period of not more than 10 years beginning on the date on which the eligible project reaches design capacity.

(3) PROFIT SHARING AGREEMENTS.—

(A) IN GENERAL.—To be eligible to receive variable price support under paragraph (1), a project owner shall enter into a profit-sharing agreement with the Secretary at the time that the variable price support agreement is executed.

(B) PAYMENTS.—Once every calendar quarter, for each project owner subject to a profit-sharing agreement executed under subparagraph (A), the Secretary shall calculate whether the synthetic price of carbon dioxide is greater than the strike price of carbon dioxide, and, if so, request from the project owner a

profit-sharing payment for that quarter, in an amount equal to—

(i) the difference between the synthetic price of carbon dioxide and the strike price of carbon dioxide; less

(ii) any repayments made under subsection (g) during that calendar quarter.

(d) APPLICATIONS.—An owner of an eligible project desiring variable price support under this section shall submit to the Secretary an application at such time, in such manner, and containing such information as the Secretary may require.

(e) SELECTION; COMPETITIVE BIDDING PROCESS.—

(1) IN GENERAL.—Once every year, the Secretary shall solicit bids from applicants for an allocation of the funding made available under subsection (h) to provide variable price support to eligible projects.

(2) BID SUBMISSION.—Applicants participating in the competitive bidding process shall submit a bid for an eligible project that includes—

(A) the strike price of carbon dioxide for a ton of qualifying carbon dioxide;

(B) a rate;

(C) a plan for the project for a period of not more than 10 years; and

(D) the projected tonnage of qualifying carbon dioxide that the eligible project will capture and sell for enhanced recovery over the project period.

(3) SELECTION.—For each fiscal year, the Secretary shall—

(A) determine the cost to the Federal Government of each bid submitted under paragraph (2); and

(B)(i) select 1 or more of the lowest bids until all of the available funding authorized by subsection (h) is obligated; or

(ii) if the Secretary determines that no bids submitted under paragraph (2) are acceptable to the Secretary, reject the bids.

(f) ADMINISTRATION.—

(1) IN GENERAL.—In carrying out a variable price support agreement entered into under subsection (c), the Secretary shall calculate the carbon dioxide price difference as a dollar amount equal to—

(A) the strike price of carbon dioxide; less

(B) the synthetic price of carbon dioxide in a qualifying ton.

(2) PAYMENTS.—Payments between the Secretary and the project owner shall be made as follows:

(A) If the amount calculated in paragraph (1) is a positive number, the Secretary shall pay to the project owner an amount equal to the product obtained by multiplying—

(i) the carbon dioxide price difference calculated under paragraph (1); and

(ii) the quantity in tons of qualifying carbon dioxide sold for enhanced recovery.

(B) If the amount calculated in paragraph (1) is a negative number, the project owner shall pay to the Secretary an amount equal to the product obtained by multiplying—

(i) the absolute value of the carbon dioxide price difference calculated under paragraph (1); and

(ii) the quantity in tons of qualifying carbon dioxide sold for enhanced recovery.

(C) Payments between the Secretary and the project owner made under subparagraphs

(A) and (B) shall be reconciled on an annual basis based on—

(i) daily carbon dioxide sales records reported by the project owner; and

(ii) the daily price of West Texas intermediate crude oil listed in the New York Mercantile Exchange.

(g) PAYMENTS TO THE FEDERAL GOVERNMENT.—

(1) IN GENERAL.—The Secretary shall establish terms and conditions for a variable price support agreement entered into under subsection (c)(1)(C).

(2) REPAYMENTS.—The repayment terms of any variable price support agreement shall commence if, during the subsidy period of the agreement, and subject to the limitations described in paragraph (3), the amount calculated under subsection (f)(1) is a positive number.

(3) LIMITATIONS.—

(A) IN GENERAL.—The repayment terms described in paragraph (2) shall be subject to the following limitations:

(i) If, during any calendar quarter during the subsidy period of the variable price support agreement, the synthetic price of carbon dioxide is less than the

strike price of carbon dioxide, the project owner may elect to defer all or part of the repayment obligations of the project owner due in that quarter and any unpaid obligations will continue to accrue interest.

(ii) If, during any calendar quarter during the subsidy period of the variable price support agreement, the synthetic price of carbon dioxide is greater than the strike price of carbon dioxide, the project owner—

(I) shall meet the scheduled repayment obligations plus any deferred repayment obligations; but

(II) shall not be required to pay in that quarter an amount that is greater than the amount equal to the product obtained by multiplying—

(aa) the excess of the synthetic price of carbon dioxide over the strike price of carbon dioxide; and

(bb) the output of the project.

(B) REPAYMENTS BEYOND SUBSIDY TERM.—At the end of the subsidy period of the agreement, the cumulative amount of any deferred repayment obligations, together with accrued interest, shall be amortized (with interest) over the remainder of the full term of the agreement.

(h) FUNDING.—

(1) IN GENERAL.—Prior to selecting bids under subsection (e)(3) for a fiscal year, the Secretary shall make available to carry out the program the following amounts, to be allocated from unobligated funds of the Department of Energy.

Years:	Available Credit:
Year 1	$1,350,000
Year 2	$1,350,000
Year 3	$1,350,000
Year 4	$2,700,000
Year 5	$2,700,000
Year 6	$2,700,000
Year 7	$4,050,000
Year 8	$5,400,000
Year 9 and thereafter	$6,750,000.

(2) EXTENSION.—If the amounts made available under paragraph (1) for a fiscal year are not used during the applicable fiscal year—

(A) the program shall be extended for an additional fiscal year; and

(B) the amounts authorized under paragraph (1) that were not used during the appli-

cable fiscal year shall be carried over to carry out the program during the additional fiscal year.

SEC. 204. CLEAN ENERGY COAL BONDS.

(a) IN GENERAL.—

(1) TREATMENT AS TAX CREDIT BONDS.—Subpart I of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end the following new section:

"SEC. 54G. CLEAN ENERGY COAL BONDS.

''(a) CLEAN ENERGY COAL BOND.—For purposes of this subchapter—

''(1) IN GENERAL.—The term 'clean energy coal bond' means any bond issued as part of an issue if—

''(A) the bond is issued by a qualified issuer pursuant to an allocation by the Secretary to such issuer of a portion of the national clean energy coal bond limitation under subsection (b)(2),

''(B) so much of the available project proceeds from the sale of such issue as is equal to 95 percent of the excess of—

''(i) the total available project proceeds from the sale of such issue, over

''(ii) the amounts in a reasonably required reserve (within the meaning of section 150(a)(3)) with respect to such issue, are to be used for capital expenditures incurred by qualified borrowers for 1 or more qualified projects,

''(C) the qualified issuer makes an irrevocable election to have this section apply,

''(D) the qualified issuer designates such bond for purposes of this section and the bond is in registered form, and

''(E) in lieu of the requirements of section 54A(d)(2), the issue meets the requirements of subsection (c).

''(2) QUALIFIED PROJECT; SPECIAL USE RULES.—

''(A) IN GENERAL.—The term 'qualified project' means a qualified clean coal project (as defined in subsection (h)(1)) placed in service by a qualified borrower.

''(B) REFINANCING RULES.—For purposes of paragraph (1)(B), a qualified project may be refinanced with proceeds of a clean energy coal bond only if the indebtedness being refinanced (including any obligation directly or indirectly

refinanced by such indebtedness) was originally incurred by a qualified borrower after the date of the enactment of this section.

''(C) REIMBURSEMENT.—For purposes of paragraph (1)(B), a clean energy coal bond may be issued to reimburse a qualified borrower for amounts paid after the date of the enactment of this section with respect to a qualified project, but only if—

''(i) prior to the payment of the original expenditure, the qualified borrower declared its intent to reimburse such expenditure with the proceeds of a clean energy coal bond,

''(ii) not later than 60 days after payment of the original expenditure, the qualified issuer adopts an official intent to reimburse the original expenditure with such proceeds, and

''(iii) reimbursement is not made later than 18 months after the date the original expenditure is paid or the date the project is placed in service or abandoned, but in no event more than 3 years after the original expenditure is paid.

''(D) TREATMENT OF CHANGES IN USE.—For purposes of paragraph (1)(B), the proceeds of an issue shall not be treated as used for a qualified project to the extent that a qualified borrower takes any action within its control which causes such proceeds not to be used for a qualified project. The Secretary shall prescribe regulations specifying remedial actions that may be taken (including conditions to taking such remedial actions) to prevent an action described in the preceding sentence from causing a bond to fail to be a clean energy coal bond.

''(b) LIMITATION ON AMOUNT OF BONDS DESIGNATED.—

''(1) NATIONAL LIMITATION.—There is a national clean energy coal bond limitation of $5,000,000,000.

''(2) ALLOCATION BY SECRETARY.—The Secretary shall allocate the amount described in paragraph (1) among qualified projects in such manner as the Secretary determines appropriate.

''(c) SPECIAL RULES RELATING TO EXPENDITURES.—

''(1) IN GENERAL.—An issue shall be treated as meeting the requirements of this subsection if, as of the date of issuance, the qualified issuer reasonably expects—

''(A) 100 percent or more of the available project proceeds from the sale of the issue are to be spent for 1 or more qualified projects within the 5-year period beginning on the date of issuance of the clean energy bond,

''(B) a binding commitment with a third party to spend at least 10 percent of such available project proceeds from the sale of the issue will be incurred within the 6-month period beginning on the date of issuance of the clean energy bond or, in the case of a clean energy bond the available project proceeds of which are to be loaned to 2 or more qualified borrowers, such binding commitment will be incurred within the 6-month period beginning on the date of the loan of such proceeds to a qualified borrower, and

''(C) such projects will be completed with due diligence and the available project proceeds from the sale of the issue will be spent with due diligence.

''(2) EXTENSION OF PERIOD.—Upon submission of a request prior to the expiration of the period described in paragraph (1)(A), the Secretary may extend such period if the qualified issuer establishes that the failure to satisfy the 5-year requirement is due to reasonable cause and the related projects will continue to proceed with due diligence.

''(3) FAILURE TO SPEND REQUIRED AMOUNT OF BOND PROCEEDS WITHIN 5 YEARS.—To the extent that less than 100 percent of the available project proceeds of such issue are expended by the close of the 5-year period beginning on the date of issuance (or if an extension has been obtained under paragraph (2), by the close of the extended period), the qualified issuer shall redeem all of the nonqualified bonds within 90 days after the end of such period. For purposes of this paragraph, the amount of the nonqualified bonds required to be redeemed shall be determined in the same manner as under section 142.

''(d) REDUCED CREDIT AMOUNT.—The annual credit determined under section 54A(b) with respect to any clean coal energy bond shall be 70 percent of the amount so determined without regard to this subsection.

''(e) COOPERATIVE ELECTRIC COMPANY; QUALIFIED ENERGY TAX CREDIT BOND LENDER; GOVERNMENTAL BODY; QUALIFIED BORROWER.—For purposes of this section—

''(1) COOPERATIVE ELECTRIC COMPANY.—The term 'cooperative electric company' means a mutual or cooperative electric company described in section 501(c)(12) or section 1381(a)(2)(C), or a not-for-profit electric utility which has received a loan or loan guarantee under the Rural Electrification Act.

''(2) CLEAN ENERGY BOND LENDER.—The term 'clean energy bond lender' means a lender which is a cooperative which is owned by, or has outstanding loans to, 100 or more cooperative electric companies and is in existence on February 1, 2002, and shall include any affiliated entity which is controlled by such lender.

''(3) PUBLIC POWER ENTITY.—The term 'public power entity' 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 enactment of this paragraph).

''(4) QUALIFIED ISSUER.—The term 'qualified issuer' means—

''(A) a clean energy bond lender,

''(B) a cooperative electric company, or

''(C) a public power entity.

''(5) QUALIFIED BORROWER.—The term 'qualified borrower' means—

''(A) a mutual or cooperative electric company described in section 501(c)(12) or 1381(a)(2)(C), or

''(B) a public power entity.

''(f) SPECIAL RULES RELATING TO POOL BONDS.—No portion of a pooled financing bond may be allocable to any loan unless the borrower has entered into a written loan commitment for such portion prior to the issue date of such issue.

''(g) GROSS-UP OF PAYMENT TO ISSUERS IN CASE OF SEQUESTRATION.—In the case of any payment due under section 6431(b) by reason of section 6431(f)(3)(A)(v) which is subject to reduction in accordance with a sequestration report prepared by the Director of the Office of Management and Budget pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985 or the Statutory Pay-As-You-Go Act of 2010—

''(1) the amount of such payment shall be increased to an amount equal to the product of—

''(A) the amount of such payment as determined before the reduction in accordance with the sequestration report, and

''(B) a fraction the numerator of which is 1 and the denominator of which is the excess of—

''(i) 100, over

''(ii) the percentage by which such payment is reduced (without regard to this subsection) in accordance with the sequestration report, and

''(2) such increase shall be treated as not subject to the sequestration report.

''(h) OTHER DEFINITIONS AND SPECIAL RULES.—For purposes of this section—

''(1) QUALIFIED CLEAN COAL PROJECT.—The term 'qualified clean coal project' means—

''(A) an atmospheric pollution control facility (within the meaning of section 169(d)(1)),

''(B) a qualifying clean coal project (within the meaning of section 48E(c)(1)),

''(C) a qualified facility (within the meaning of section 45Q(c)), or

''(D) an integrated gasification combined cycle unit, supercritical coal-fired power plant,

or ultrasupercritical coal-fired power plant, with an energy efficiency percentage (as defined in section 48(c)(3)(C)(i)) that is not less than 5 percentage points greater than the average energy efficiency percentage for coal electrical production facilities in the United States and corrected for the impact of carbon capture (as determined by the Secretary of Energy).

''(2) DEFINITIONS.—

''(A) INTEGRATED GASIFICATION COMBINED CYCLE UNIT.—The term 'integrated gasification combined cycle unit' means an electric generation unit that produces electricity by converting coal to synthesis gas that is used to fuel a combined-cycle plant that produces electricity from both a combustion turbine (including a combustion turbine/fuel cell hybrid) and a steam turbine.

''(B) POOLED FINANCING BOND.—The term 'pooled financing bond' shall have the meaning given such term by section 149(f)(6)(A).

''(C) SUPERCRITICAL COAL-FIRED POWER PLANT.—The term 'supercritical coal-fired power plant' means a coal-fired power plant op-

erating at pressures such that water boils first and then is converted to superheated steam.

''(D) ULTRASUPERCRITICAL COAL-FIRED POWER PLANT.—The term 'ultrasupercritical coal-fired power plant' means a power plant described in subparagraph (C) operating above supercritical pressure and at steam temperatures above 1,100 degrees Fahrenheit.''.

(2) BONDS NOT SUBJECT TO MATURITY LIMITATION.—Paragraph (5) of section 54A(d) of such Code is amended by adding at the end the following new subparagraph:

''(C) SPECIAL RULE FOR CLEAN ENERGY COAL BONDS.—The requirements of this paragraph shall not apply to a clean energy coal bond under section 54G.''.

(3) CONFORMING AMENDMENTS.—

(A) Paragraph (1) of section 54A(d) of the Internal Revenue Code of 1986 is amended by striking ''or'' at the end of subparagraph (D), by inserting ''or'' at the end of subparagraph (E), and by inserting after subparagraph (E) the following new subparagraph:

''(F) a clean energy coal bond,''.

(B) The table of sections for subpart I of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1986 is amended by adding at the end the following new item:

''Sec. 54G. Clean energy coal bonds.''.

(b) BONDS TREATED AS SPECIFIED TAX CREDIT BONDS.—

(1) IN GENERAL.—Section 6431(f)(3)(A) of the Internal Revenue Code of 1986 is amended by striking ''or'' at the end of clause (iii), by striking ''and'' at the end of clause (iv) and inserting ''or'', and by adding at the end the following new clause:

''(v) a clean energy coal bond (as defined in section 54G), and''.

(2) SPECIAL RULE.—Paragraph (2) of section 6431(f) of such Code is amended—

(A) by striking ''clause (i) or (ii)'' and inserting ''clause (i), (ii), or (v)''; and

(B) by striking the heading and inserting ''SPECIAL RULE FOR CERTAIN BONDS''.

(c) EFFECTIVE DATE.—The amendments made by this section shall apply to bonds issued after the date of the enactment of this Act.

TITLE III—REPORTS REQUIRED

SEC. 301. DEFINITIONS.

In this title:

(1) CCS.—the term ''CCS'' means carbon capture and storage, including geological storage and enhanced oil recovery, as well as other forms of carbon utilization.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of Energy.

SEC. 302. REPORTS TO CONGRESS.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress and make available to the public (including on the website of the Department of Energy) a report that—

(1) provides a comprehensive review of the annual progress made by the National Laboratories and the offices of the Department of Energy that are currently active in researching and developing clean coal technologies and CCS, including—

(A) the status of carbon capture, transport, storage, and utilization, including—

(i) an overview and evaluation of key technologies;

(ii) a description of existing CCS infrastructure and demonstration projects in the United States, including the status of permitting, financing, and construction

and the expected date of commencement of operations;

(iii) the associated costs of key technologies, including the amount and type of Federal funding; and

(iv) an estimated timeline to commercial scalability;

(B) a description of the current barriers for CCS deployment and commercialization, including—

(i) market failures;

(ii) regulatory framework;

(iii) long-term liability for carbon storage;

(iv) public outreach; and

(v) annual progress on overcoming the identified barriers;

(C) possible solutions to address the barriers described in subparagraph (B), including—

(i) funding options for CCS projects;

(ii) options to improve the current legal and regulatory framework; and

(iii) suggestions for Federal Government action on effective public outreach; and

(D) a separate review that focuses on international research and projects sponsored by the Department of Energy, including—

(i) a clear description of how the Federal Government has participated in each project, including the amount and type of Federal funding;

(ii) the technical and economic status of each project, including the expected date of commencement of operations; and

(iii) recommendations on—

(I) how to most efficiently engage in each project in the future; and

(II) whether a change of funding support could assist in those efforts; and

(2) addresses all of the international consortia that the Federal Government is currently engaged in by—

(A) detailing the type of Federal Government activity in each consortium;

(B) including a description of any ''lessons learned'' by participants from the Federal Government as a direct result of consortium activity;

(C) describing the benefits derived from Federal Government involvement; and

(D) making recommendations for the involvement of the Federal Government in each consortium including—

(i) whether the Federal Government should continue to participate; and

(ii) how the Federal Government could increase the productivity of the consortium, if possible.

(b) ADDITIONAL REPORT.—Not later than 18 months after the date of enactment of this Act, and not less frequently than once every year for the next 5 years thereafter, the Secretary shall submit to Congress and make available to the public (including on the website of the Department of Energy) a report that—

(1) provides an assessment of the upcoming CCS projects in Canada, including—

(A) the SaskPower Boundary Dam Integrated CCS Demonstration Project;

(B) the Shell Quest Project; and

(C) the Alberta Carbon Trunk Line; and

(2) determines—

(A) whether operation of the CCS system is meeting the project goals;

(B) the economic status of the project, including—

(i) an overview of the ratio of private and public funds for capital costs;

(ii) whether the project is generating revenue; and

(iii) the current return on investment;

(C) whether the project is the type of project that the Federal Government should replicate in the United States to move CCS forward on a pilot level;

(D) whether the project could comply with subparagraph (E) or (F) if the project should be replicated under subparagraph (C);

(E) whether the Federal Government and private industry in the United States can work together to develop a similar pilot project in the United States; and

(F) if the Federal Government and private industry cannot work together under subparagraph (E), whether the Federal Government

should work jointly with Canada on a similar project.

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