

114TH CONGRESS  
1ST SESSION

# S. 601

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

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IN THE SENATE OF THE UNITED STATES

FEBRUARY 26, 2015

Ms. HEITKAMP (for herself and Mr. KAINE) 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.

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; TABLE OF CONTENTS.**

4        (a) **SHORT TITLE.**—This Act may be cited as the  
5        “Advanced Clean Coal Technology Investment in Our Na-  
6        tion Act of 2015” or the “ACCTION Act of 2015”.

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

Sec. 1. Short title; table of contents.  
Sec. 2. Findings.

TITLE I—FEDERAL INVESTMENT IN CLEAN COAL  
TECHNOLOGIES

- Sec. 101. Large-scale carbon storage program.
- Sec. 102. Research, development and demonstration programs.
- Sec. 103. Innovative technology loan guarantee program.
- Sec. 104. Coordination of clean coal generating projects.

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.
- Sec. 202. Credit for carbon sequestration from coal facilities.
- Sec. 203. Variable price support for carbon dioxide sequestration.
- Sec. 204. Clean energy coal bonds.

TITLE III—REPORTS REQUIRED

- Sec. 301. Definitions.
- Sec. 302. Reports to Congress.

**1 SEC. 2. FINDINGS.**

2 Congress finds that—

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

7 (2) according to the Energy Information Ad-  
8 ministration, 37 percent of all energy generated in  
9 the United States comes from coal and by 2040,  
10 coal will still account for 32 percent of energy gen-  
11 eration in the United States;

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

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

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

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

9           (7) efficiencies as high as 48 percent may be at-  
10          tained with ultrasupercritical coal-fired power plants.

11          (8) replacing the average subcritical coal-fired  
12          power plant with a supercritical or ultrasupercritical  
13          coal-fired power plant would reduce carbon emis-  
14          sions by 18 to 22 percent per megawatt hour of en-  
15          ergy generated; and

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

## 21 **TITLE I—FEDERAL INVESTMENT** 22 **IN CLEAN COAL TECHNOLOGIES**

### 23 **SEC. 101. LARGE-SCALE CARBON STORAGE PROGRAM.**

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

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

3 **“SEC. 963A. LARGE-SCALE CARBON STORAGE PROGRAM.**

4 “(a) DEFINITIONS.—In this section:

5 “(1) INDUSTRIAL SOURCE.—The term ‘indus-  
6 trial source’ means any source of carbon dioxide that  
7 is not naturally occurring.

8 “(2) LARGE-SCALE.—The term ‘large-scale’  
9 means the injection from industrial sources into a  
10 geological formation of—

11 “(A) over 1,000,000 tons of carbon dioxide  
12 each year; or

13 “(B) carbon dioxide to a scale that dem-  
14 onstrates the ability to inject and sequester sev-  
15 eral million metric tons of industrial source car-  
16 bon dioxide for a large number of years.

17 “(3) SECRETARY CONCERNED.—The term ‘Sec-  
18 retary concerned’ means—

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

22 “(B) the Secretary of the Interior, with re-  
23 spect to land managed by the Bureau of Land  
24 Management (including land held for the ben-  
25 efit of an Indian tribe).

1       “(b) PROGRAM.—The Secretary shall carry out a pro-  
2 gram to demonstrate the integration of systems for the  
3 capture, transportation, and injection of carbon dioxide  
4 from industrial sources, either for the purpose of long-  
5 term geological storage or enhanced oil recovery at a com-  
6 mercial scale.

7       “(c) AUTHORIZED ASSISTANCE.—

8           “(1) IN GENERAL.—In carrying out the pro-  
9 gram, the Secretary may enter into cooperative  
10 agreements to provide financial and technical assist-  
11 ance to up to 10 large-scale geological storage or en-  
12 hanced oil recovery projects.

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

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

21           “(1) provide the Secretary with sufficient geo-  
22 logical site information (including hydrogeological  
23 and geophysical information) to establish that the  
24 proposed geological formation is capable of use for  
25 enhanced oil recovery and, in the case of geological

1 storage, is capable of long-term storage of the in-  
2 jected carbon dioxide, including—

3 “(A) the location, extent, and storage ca-  
4 pacity of the geological storage unit at the site  
5 into which the carbon dioxide will be injected;

6 “(B) the principal potential modes of  
7 geomechanical failure in the geological storage  
8 unit;

9 “(C) the ability of the geological storage  
10 unit to retain injected carbon dioxide;

11 “(D) the measurement, monitoring, and  
12 verification requirements necessary to ensure  
13 adequate information on the operation of the  
14 geological storage unit during and after the in-  
15 jection of carbon dioxide; and

16 “(E) a study and report on the rate of in-  
17 jection of carbon dioxide from power plants  
18 (based on operating the plant on a 24-hours-a-  
19 day, 7-days-a-week, and 365-days-a-year basis  
20 over several decades) necessary to avoid—

21 “(i) imbalances of carbon dioxide; and

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

1                   or such that there would be forced stop-  
2                   pages of injection;

3                   “(2) have legal authority to use the land or in-  
4                   terests in land necessary for—

5                   “(A) the injection of the carbon dioxide at  
6                   the proposed geological storage unit or en-  
7                   hanced oil recovery site; and

8                   “(B) the storage, closure, monitoring, and  
9                   long-term stewardship of the geological storage  
10                  unit for geological storage of carbon dioxide;  
11                  and

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

15                  “(e) TERMS AND CONDITIONS.—The Secretary shall  
16                  condition receipt of financial assistance pursuant to a co-  
17                  operative agreement under this section on the recipient  
18                  agreeing—

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

21                  “(A) the requirements of the underground  
22                  injection control program under part C of the  
23                  Safe Drinking Water Act (42 U.S.C. 300h et  
24                  seq.) (referred to in this section as the ‘UIC  
25                  program’); and

1           “(B) any other Federal and State require-  
2           ments to protect drinking water supplies; and

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

7           “(f) INDEMNIFICATION AGREEMENTS FOR GEOLOGI-  
8           CAL STORAGE.—

9           “(1) DEFINITION OF LIABILITY.—In this sub-  
10          section, the term ‘liability’ means any legal liability  
11          for—

12                 “(A) bodily injury, sickness, disease, or  
13                 death;

14                 “(B) loss of or damage to property, or loss  
15                 of use of property; or

16                 “(C) injury to or destruction or loss of nat-  
17                 ural resources, including fish, wildlife, and  
18                 drinking water supplies.

19           “(2) AGREEMENTS.—Not later than 1 year  
20          after the date of the receipt by the Secretary of a  
21          completed application for assistance authorized  
22          under subsection (c), the Secretary may agree to in-  
23          demnify and hold harmless the recipient of a cooper-  
24          ative agreement under this section from liability  
25          arising out of or resulting from a demonstration



1 project in excess of the amount of liability covered  
2 by financial protection maintained by the recipient  
3 in accordance with the requirements of the UIC pro-  
4 gram.

5 “(3) EXCEPTION FOR GROSS NEGLIGENCE AND  
6 INTENTIONAL MISCONDUCT.—Notwithstanding para-  
7 graph (1), the Secretary may not indemnify the re-  
8 cipient of a cooperative agreement under this section  
9 from liability arising out of conduct of a recipient  
10 that is grossly negligent or that constitutes inten-  
11 tional misconduct.

12 “(4) COLLECTION OF FEES.—

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

20 “(B) AMOUNT.—The Secretary shall estab-  
21 lish, by regulation, criteria for determining the  
22 amount of the fee, taking into account—

23 “(i) the likelihood of an incident re-  
24 sulting in liability to the United States  
25 under the indemnification agreement; and

1                   “(ii) other factors pertaining to the  
2                   hazard of the indemnified project.

3                   “(C) USE OF FEES.—Fees collected under  
4                   this paragraph shall be deposited in the Treas-  
5                   ury and credited to miscellaneous receipts.

6                   “(5) CONTRACTS IN ADVANCE OF APPROPRIA-  
7                   TIONS.—

8                   “(A) IN GENERAL.—Subject to subpara-  
9                   graph (B), the Secretary may enter into agree-  
10                  ments of indemnification under this subsection  
11                  in advance of appropriations and incur obliga-  
12                  tions without regard to section 1341 of title 31,  
13                  United States Code (commonly known as the  
14                  ‘Anti-Deficiency Act’), or section 11 of title 41,  
15                  United States Code (commonly known as the  
16                  ‘Adequacy of Appropriations Act’).

17                  “(B) LIMITATION.—The amount of indem-  
18                  nification under this subsection shall not exceed  
19                  \$10,000,000,000 (adjusted not less than once  
20                  during each 5-year period following the date of  
21                  enactment of this section, in accordance with  
22                  the aggregate percentage change in the Con-  
23                  sumer Price Index since the previous adjust-  
24                  ment under this subparagraph), in the aggre-  
25                  gate, for all persons indemnified in connection

1 with an agreement and for each project, includ-  
2 ing such legal costs as are approved by the Sec-  
3 retary.

4 “(6) CONDITIONS OF AGREEMENTS OF INDEMNIFICATION.—  
5

6 “(A) IN GENERAL.—The agreement shall  
7 provide that, if the Secretary makes a deter-  
8 mination that there is a substantial likelihood  
9 that the United States will be required to make  
10 indemnity payments under the agreement, the  
11 Attorney General—

12 “(i) shall collaborate with the recipi-  
13 ent of an award under this subsection; and

14 “(ii) may—

15 “(I) approve the payment of any  
16 claim under the agreement of indem-  
17 nification;

18 “(II) appear on behalf of the re-  
19 cipient;

20 “(III) take charge of an action;  
21 and

22 “(IV) settle or defend an action.

23 “(B) SETTLEMENT OF CLAIMS.—

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

1 of the United States to settle or approve  
2 the settlement of any claim under this sub-  
3 section on a fair and reasonable basis with  
4 due regard for the purposes of this sub-  
5 section.

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

9 “(g) FEDERAL LAND.—

10 “(1) IN GENERAL.—The Secretary concerned  
11 may authorize the siting of a project on Federal  
12 land under the jurisdiction of the Secretary con-  
13 cerned in a manner consistent with applicable laws  
14 and land management plans and subject to such  
15 terms and conditions as the Secretary concerned de-  
16 termines to be necessary.

17 “(2) FRAMEWORK FOR GEOLOGICAL CARBON  
18 SEQUESTRATION ON PUBLIC LAND.—In determining  
19 whether to authorize a project on Federal land, the  
20 Secretary concerned shall take into account the  
21 framework for geological carbon sequestration on  
22 public land prepared in accordance with section 714  
23 of the Energy Independence and Security Act of  
24 2007 (Public Law 110–140; 121 Stat. 1715).

1       “(h) ACCEPTANCE OF TITLE AND LONG-TERM MONI-  
2 TORING.—

3               “(1) IN GENERAL.—As a condition of a cooper-  
4 ative agreement under this section, the Secretary  
5 may accept title to, or transfer of administrative ju-  
6 risdiction from another Federal agency over, any  
7 land or interest in land necessary for the monitoring,  
8 remediation, or long-term stewardship of a project  
9 site.

10              “(2) LONG-TERM MONITORING ACTIVITIES FOR  
11 GEOLOGICAL STORAGE.—After accepting title to, or  
12 transfer of, a site closed in accordance with this sec-  
13 tion, the Secretary shall monitor the site and con-  
14 duct any remediation activities to ensure the geologi-  
15 cal integrity of the site and prevent any  
16 endangerment of public health or safety.

17              “(3) FUNDING.—There is appropriated to the  
18 Secretary, out of funds of the Treasury not other-  
19 wise appropriated, such sums as are necessary to  
20 carry out paragraph (2).

21              “(i) AUTHORIZATION OF APPROPRIATIONS.—There  
22 are authorized to be appropriated to carry out this section  
23 such sums as are necessary.”.

1 **SEC. 102. RESEARCH, DEVELOPMENT AND DEMONSTRATION PROGRAMS.**  
2

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

5 (1) in subsection (a)—

6 (A) in paragraph (10), by striking “and”  
7 at the end;

8 (B) in paragraph (11), by striking the pe-  
9 riod at the end and inserting “; and”; and

10 (C) by adding at the end the following:

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

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

17 “(14) innovations to application of existing coal  
18 conversion systems designed to increase efficiency of  
19 conversion, flexibility of operation, and other modi-  
20 fications to address existing usage requirements.”;

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

23 (3) by inserting after subsection (a) the fol-  
24 lowing:

25 “(b) TRANSFORMATIONAL COAL TECHNOLOGY PRO-  
26 GRAM.—

1           “(1) IN GENERAL.—As part of the program es-  
2           tablished under subsection (a), the Secretary may  
3           carry out a program designed to undertake research,  
4           development, and demonstration of technologies, in-  
5           cluding the accelerated development of—

6                   “(A) chemical looping technology;

7                   “(B) supercritical carbon dioxide power  
8           generation cycles;

9                   “(C) pressurized oxycombustion, including  
10          new and retrofit technologies; and

11                  “(D) other technologies that are character-  
12          ized by the use of—

13                          “(i) alternative energy cycles;

14                          “(ii) thermionic devices using waste  
15          heat;

16                          “(iii) fuel cells;

17                          “(iv) replacement of chemical proc-  
18          esses with biotechnology;

19                          “(v) nanotechnology;

20                          “(vi) new materials in applications  
21          (other than extending cycles to higher tem-  
22          perature and pressure), such as mem-  
23          branes or ceramics;

24                          “(vii) carbon utilization (other than  
25          enhanced oil recovery), such as construc-

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

4           “viii) advanced gas separation con-  
5           cepts; and

6           “(ix) other technologies, including—

7           “(I) modular, manufactured com-  
8           ponents; and

9           “(II) innovative production or re-  
10          search techniques, such as using 3-D  
11          printer systems, for the production of  
12          early research and development proto-  
13          types.

14          “(2) COST SHARE.—In carrying out the pro-  
15          gram described in paragraph (1), the Secretary may  
16          enter into partnerships with private entities to share  
17          the costs of carrying out the program.”; and

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

19                (A) by striking paragraph (1) and insert-  
20                ing the following:

21          “(1) IN GENERAL.—In carrying out programs  
22          authorized by this section, during each of calendar  
23          years 2016, 2018, 2021, and annually thereafter,  
24          the Secretary shall identify cost and performance  
25          goals for coal-based technologies that would permit



1 the continued cost-competitive use of coal for the  
2 production of electricity, chemical feedstocks, trans-  
3 portation fuels, and other marketable products.”;  
4 and

5 (B) in paragraph (2), by striking “date of  
6 enactment of this Act” each place it appears  
7 and inserting “date of enactment of the Ad-  
8 vanced Clean Coal Technology Investment in  
9 Our Nation Act of 2015”.

10 (b) ADVISORY COMMITTEE; AUTHORIZATION OF AP-  
11 PROPRIATIONS.—Section 963 of the Energy Policy Act of  
12 2005 (42 U.S.C. 16293) is amended—

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

15 “(6) ADVISORY COMMITTEE.—

16 “(A) IN GENERAL.—Subject to subpara-  
17 graph (B), the Secretary shall establish an advi-  
18 sory committee—

19 “(i) to undertake, not less frequently  
20 than once every 3 years, a review and pre-  
21 pare a report on the progress being made  
22 by the Department of Energy to achieve  
23 the goals described in subsections (a) and  
24 (b) of section 962 and subsection (b) of  
25 this section; and

1           “(ii) to assess and provide rec-  
2           ommendations on how the capture of car-  
3           bon from other fossil fuels could be sup-  
4           ported through the objectives described in  
5           subsection (b).

6           “(B) MEMBERSHIP REQUIREMENTS.—  
7           Members of the advisory committee under sub-  
8           paragraph (A) shall be appointed by the Presi-  
9           dent.”; and

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

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

15                 “(1) \$1,654,000,000 for fiscal years 2016  
16                 through 2019;

17                 “(2) \$5,283,000,000 for fiscal years 2020  
18                 through 2026; and

19                 “(3) \$3,300,000,000 for fiscal years 2027  
20                 through 2036.”.

21          (c) COST SHARING REDUCTION.—Section 988(b) of  
22          the Energy Policy Act of 2005 (42 U.S.C. 16352(b)) is  
23          amended by striking paragraph (3) and inserting the fol-  
24          lowing:

1           “(3) REDUCTION.—The Secretary shall reduce  
2 or eliminate the requirement of paragraph (1) for a  
3 research and development activity of an applied na-  
4 ture if the Secretary—

5                   “(A) is petitioned for a reduction by a non-  
6 Federal source; and

7                   “(B) determines that the reduction is nec-  
8 essary and appropriate to achieve the purposes  
9 and goals of—

10                           “(i) this Act; and

11                           “(ii) the program or activity for which  
12 the research or development activity is  
13 being undertaken.”.

14 **SEC. 103. INNOVATIVE TECHNOLOGY LOAN GUARANTEE**  
15 **PROGRAM.**

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

19                   “(f) OTHER FORMS OF FEDERAL SUPPORT AL-  
20 LOWED.—An eligible project that is eligible for or in re-  
21 ceipt of other forms of Federal financial assistance shall  
22 not be precluded from receiving a loan guarantee made  
23 pursuant to this section.

24                   “(g) TIMELINE FOR LOAN GUARANTEE APPROVAL  
25 FOR CERTAIN PROJECTS.—Notwithstanding any other

1 provision of law, not later than 2 years after the date of  
 2 enactment of the Advanced Clean Coal Technology Invest-  
 3 ment in Our Nation Act of 2015, the Secretary shall—

4 “(1) give final approval to applications for loan  
 5 guarantees under subsection (a) for projects de-  
 6 scribed in subsection (b)(2); and

7 “(2) make loans for those projects in amounts  
 8 equal to \$2,000,000,000.”.

9 (b) CONFORMING AMENDMENTS.—

10 (1) Title III of division C of the Omnibus Ap-  
 11 propriations Act, 2009 (Public Law 111–8; 123  
 12 Stat. 619) is amended in the matter under the head-  
 13 ing “TITLE 17 INNOVATIVE TECHNOLOGY LOAN  
 14 GUARANTEE PROGRAM”, by striking the seventh,  
 15 eighth, and ninth provisos.

16 (2) The Supplemental Appropriations Act, 2009  
 17 (Public Law 111–32) is amended by striking section  
 18 408 (123 Stat. 1878).

19 **SEC. 104. COORDINATION OF CLEAN COAL GENERATING**  
 20 **PROJECTS.**

21 (a) DEFINITIONS.—In this section, the term “eligible  
 22 clean coal generating projects” means any project under-  
 23 taken to install and operate an advanced carbon capture  
 24 and storage technology at a new or existing steam gener-  
 25 ating unit.

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

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

7 (2) the Federal Water Pollution Control Act  
8 (33 U.S.C. 1251 et seq.);

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

11 (4) the National Environmental Policy Act of  
12 1969 (42 U.S.C. 4321 et seq.); and

13 (5) the Safe Drinking Water Act (42 U.S.C.  
14 300f et seq.).

15 (c) SCHEDULE.—In carrying out subsection (b), the  
16 Secretary of Energy shall establish a schedule for all Fed-  
17 eral authorizations with respect to each eligible project,  
18 including by—

19 (1) setting binding intermediate milestones and  
20 deadlines to ensure expeditious completion of all pro-  
21 ceedings and final action on all Federal authoriza-  
22 tions relating to the eligible project;

23 (2) requiring that all permit decisions and re-  
24 lated environmental reviews under applicable Federal  
25 law shall be completed not later than 1 year after

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

4 (3) coordinating, to the maximum extent prac-  
5 ticable, any State permitting and environmental re-  
6 quirements.

7 (d) MEMORANDA OF UNDERSTANDING.—To stream-  
8 line and expedite review of Federal authorizations for eli-  
9 gible clean coal generating projects, the Secretary of En-  
10 ergy shall—

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

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

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

18 (e) JUDICIAL REVIEW.—With respect to an applica-  
19 tion for Federal authorization relating to an eligible clean  
20 coal generating project, the applicable Federal circuit  
21 court may review and remedy—

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

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

4   **TITLE II—FEDERAL INCENTIVES**  
5       **FOR PRIVATE INVESTMENT**  
6       **IN CLEAN COAL TECH-**  
7       **NOLOGIES**

8   **SEC. 201. SEVEN-YEAR AMORTIZATION FOR CERTAIN SYS-**  
9                   **TEMS INSTALLED ON COAL-FIRED ELECTRIC**  
10                   **GENERATION UNITS.**

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

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

16                           “(A) IN GENERAL.—Any mechanical or  
17                           electronic system—

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

21   “(ii) which reduces carbon dioxide  
22   emissions per net megawatt hour of elec-  
23   tricity generation by 1 or more of the  
24   means described in subparagraph (B) or  
25   any other means,

1 shall be treated for purposes of this section as  
2 a new identifiable treatment facility which  
3 abates or controls atmospheric pollution or con-  
4 tamination by removing, altering, disposing,  
5 storing, or preventing the creation or emission  
6 of pollutants, contaminants, wastes, or heat.  
7 Paragraph (1)(C) of this subsection, and sub-  
8 section (e), shall not apply to any system which  
9 is so treated.

10 “(B) MEANS FOR REDUCING EMISSIONS.—

11 The means described in this subparagraph  
12 are—

13 “(i) optimizing combustion,

14 “(ii) optimizing sootblowing and heat  
15 transfer,

16 “(iii) upgrading steam temperature  
17 control capabilities,

18 “(iv) reducing exit gas temperatures  
19 (air heater modifications),

20 “(v) predrying low rank coals using  
21 power plant waste heat,

22 “(vi) modifying steam turbines or  
23 change the steam path/blading,



1           “(vii) replacing single speed motors  
2           with variable speed drives for fans and  
3           pumps, and

4           “(viii) improving operational controls,  
5           including neural networks.

6           “(C) SPECIAL RULE FOR MINIMUM TAX.—  
7           Section 56(a)(5) shall not apply to property to  
8           which this paragraph applies.”.

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

12      **SEC. 202. CREDIT FOR CARBON SEQUESTRATION FROM**  
13                                      **COAL FACILITIES.**

14          (a) IN GENERAL.—Subpart E of part IV of sub-  
15          chapter A of chapter 1 of the Internal Revenue Code of  
16          1986 is amended by inserting after section 48D the fol-  
17          lowing new section:

18      **“SEC. 48E. QUALIFYING CARBON DIOXIDE CAPTURE,**  
19                                      **TRANSPORT, AND STORAGE EQUIPMENT**  
20                                      **CREDIT.**

21          “(a) GENERAL RULE.—For purposes of section 46,  
22          the qualifying carbon dioxide capture, transport, and stor-  
23          age equipment credit for any taxable year is an amount  
24          equal to 30 percent of the qualified investment for such  
25          taxable year.

1 “(b) QUALIFIED INVESTMENT.—

2 “(1) IN GENERAL.—For purposes of subsection  
3 (a), the qualified investment for any taxable year is  
4 the basis of eligible carbon dioxide capture, trans-  
5 port, and storage property placed in service by the  
6 taxpayer during such taxable year which is part of  
7 a qualifying clean coal project—

8 “(A)(i) the construction, reconstruction, or  
9 erection of which is completed by the taxpayer,  
10 or

11 “(ii) which is acquired by the taxpayer if  
12 the original use of such property commences  
13 with the taxpayer, and

14 “(B) with respect to which depreciation (or  
15 amortization in lieu of depreciation) is allow-  
16 able.

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

20 “(3) CERTAIN QUALIFIED PROGRESS EXPENDI-  
21 TURES RULES MADE APPLICABLE.—Rules similar to  
22 the rules of subsections (c)(4) and (d) of section 46  
23 (as in effect on the day before the enactment of the  
24 Revenue Reconciliation Act of 1990) shall apply for  
25 purposes of this section.

1 “(c) DEFINITIONS.—For purposes of this section—

2 “(1) COAL.—The term ‘coal’ means bituminous  
3 coal, subbituminous coal, and lignite.

4 “(2) ELIGIBLE CARBON DIOXIDE CAPTURE,  
5 TRANSPORT, AND STORAGE PROPERTY.—The term  
6 ‘eligible carbon dioxide capture, transport, and stor-  
7 age property’ means any property—

8 “(A) which is used to capture, transport,  
9 or store carbon dioxide emitted at a qualifying  
10 clean coal project, including equipment used to  
11 separate and pressurize carbon dioxide for  
12 transport (including equipment to operate such  
13 equipment),

14 “(B)(i) the construction, reconstruction, or  
15 erection of which is completed by the taxpayer,  
16 or

17 “(ii) which is acquired by the taxpayer if  
18 the original use of such property commences  
19 with the taxpayer, and

20 “(C) with respect to which depreciation (or  
21 amortization in lieu of depreciation) is allow-  
22 able.

23 “(3) QUALIFIED POLYGENERATION PLANT.—  
24 The term ‘qualified polygeneration plant’ means a  
25 plant that produces 2 or more marketable products,

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

3 “(4) QUALIFYING CLEAN COAL PROJECT.—

4 “(A) IN GENERAL.—The term ‘qualifying  
5 clean coal project’ means any project if such  
6 project—

7 “(i) uses—

8 “(I) gasification technology (as  
9 defined in section 48B(c)(2)), or

10 “(II) coal as not less than 75  
11 percent of the project fuel source,  
12 to produce electricity or is a polygeneration  
13 plant, and

14 “(ii)(I) is a new project which is de-  
15 signed to meet the requirements of sub-  
16 paragraph (B), or

17 “(II) consists of retrofits to existing  
18 equipment such that the project meets the  
19 requirements of subparagraph (B).

20 “(B) REQUIREMENTS.—

21 “(i) IN GENERAL.—A project shall  
22 meet the emission requirement of clause  
23 (ii) and the carbon capture requirement of  
24 clause (iii).

1           “(ii) EMISSION REQUIREMENT.—The  
2 requirement of this clause is met if the  
3 project is designed—

4           “(I) to emit carbon dioxide at an  
5 average annual rate of less than 1,100  
6 pounds per net megawatt hour of elec-  
7 trical generation, or

8           “(II) such that the carbon diox-  
9 ide emissions of such project are no  
10 greater than half of the average car-  
11 bon dioxide emissions for facilities  
12 producing electricity during 2005  
13 from the same coal rank as such  
14 project, as determined under regula-  
15 tions prescribed by the Secretary in  
16 consultation with the Secretary of En-  
17 ergy and the Administrator of the En-  
18 vironmental Protection Agency.

19           “(iii) CARBON CAPTURE REQUIRE-  
20 MENT.—The requirement of this clause is  
21 met—

22           “(I) if such unit is among the  
23 first 1,000 megawatts of electric gen-  
24 eration units certified by the Sec-  
25 retary under subsection (e), to cap-

1                   ture and sequester not less than  
2                   500,000 metric tons per year of car-  
3                   bon dioxide,

4                   “(II) if such unit is among the  
5                   next 3,000 megawatts of electric gen-  
6                   eration units certified by the Sec-  
7                   retary under subsection (e), to cap-  
8                   ture and sequester not less than  
9                   1,000,000 metric tons per year of car-  
10                  bon dioxide, and

11                  “(III) for any other unit, to cap-  
12                  ture and sequester not less than  
13                  2,000,000 metric tons per year of car-  
14                  bon dioxide.

15                  “(d) AGGREGATE CREDITS.—

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

20                  “(2) LIMITATION ON PROJECTS CERTIFIED.—

21                  The Secretary may certify under subsection (e) no  
22                  more than—

23                  “(A) 20 projects described in subsection  
24                  (c)(4)(A)(ii)(I), and

1           “(B) 20 projects described in subsection  
2           (e)(4)(A)(ii)(II).

3           “(e) CERTIFICATION.—

4           “(1) CERTIFICATION PROCESS.—The Secretary,  
5           in consultation with the Secretary of Energy and the  
6           Administrator of the Environmental Protection  
7           Agency, shall establish a certification process to de-  
8           termine if a project meets all criteria and other re-  
9           quirements to be recognized as a qualifying clean  
10          coal project.

11          “(2) FEEDSTOCK REQUIREMENTS.—After the  
12          date of publication by the Secretary of the final cer-  
13          tification process referred to in paragraph (1), the  
14          Secretary shall allocate the limitation in subsection  
15          (d)(2) in equal amounts among—

16                 “(A) projects using bituminous coal as a  
17                 primary feedstock,

18                 “(B) projects using subbituminous coal as  
19                 a primary feedstock, and

20                 “(C) projects using lignite as a primary  
21                 feedstock.

22          “(3) REDISTRIBUTION.—The Secretary may re-  
23          allocate credits if the Secretary determines that  
24          there is an insufficient quantity of qualifying appli-  
25          cations for certification, pending at the time of re-

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

7 “(4) REQUIREMENTS FOR APPLICATIONS FOR  
8 CERTIFICATION.—An application for certification  
9 shall contain such information as the Secretary may  
10 require in order to make a determination to accept  
11 or reject the application and establish applicable  
12 credit entitlement. Any information contained in the  
13 application shall be protected as provided in section  
14 552(b)(4) of title 5, United States Code.

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

18 (b) CONFORMING AMENDMENTS.—

19 (1) Section 46 of such Code (relating to amount  
20 of credit) is amended by striking “and” at the end  
21 of paragraph (5), by striking the period at the end  
22 of paragraph (6) and inserting “, and”, and by add-  
23 ing at the end the following new paragraph:

24 “(7) the qualifying carbon dioxide capture,  
25 transport, and storage equipment credit.”.



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

6                       “(vii) the basis of any qualifying car-  
 7                       bon dioxide capture, transport, and storage  
 8                       equipment under section 48E.”.

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

“Sec. 48E. Qualifying carbon dioxide capture, transport, and storage equip-  
 ment credit.”.

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

19 **SEC. 203. VARIABLE PRICE SUPPORT FOR CARBON DIOXIDE**  
 20 **SEQUESTRATION.**

21       (a) DEFINITIONS.—In this section:

22           (1) CARBON DIOXIDE PRICE DIFFERENCE.—  
 23       The term “carbon dioxide price difference” means

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

3 (2) DESIGN CAPACITY.—The term “design ca-  
4 pacity” means a project that has the capacity to  
5 capture—

6 (A) not fewer than 3,000,000 tons of car-  
7 bon dioxide annually; or

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

11 (3) ELIGIBLE PROJECT.—The term “eligible  
12 project” means a project that—

13 (A) captures and sells carbon dioxide that  
14 is used for enhanced recovery and generates  
15 electricity or gaseous or liquid fuels, or is a  
16 qualified polygeneration plant (as defined in  
17 section 48E(c) of the Internal Revenue Code of  
18 1986);

19 (B) is located in the United States;

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

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

24 (E) has reached design capacity; and

1 (F) has a contract with an enhanced recov-  
2 ery company that is for a period that is equal  
3 to or greater than the subsidy period.

4 (4) ENHANCED RECOVERY.—The term “en-  
5 hanced recovery” means enhanced oil recovery and  
6 enhanced gas recovery.

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

11 (6) MARKET PRICE OF OIL.—The term “market  
12 price of oil” means the price of oil as reported in a  
13 public oil market index such as the New York Mer-  
14 cantile Exchange.

15 (7) PROGRAM.—The term “program” means  
16 the Enhanced Recovery Program established under  
17 subsection (b).

18 (8) QUALIFYING CARBON DIOXIDE.—The term  
19 “qualifying carbon dioxide” means carbon dioxide  
20 that is captured from an eligible project and is eligi-  
21 ble for variable price support.

22 (9) RATE.—The term “rate” means the ratio  
23 bid by the project owner of the price of carbon diox-  
24 ide to the market price of oil, and that is used to  
25 calculate the synthetic price of carbon dioxide.

1           (10) SECRETARY.—The term “Secretary”  
2 means the Secretary of Energy.

3           (11) STRIKE PRICE OF CARBON DIOXIDE.—The  
4 term “strike price of carbon dioxide” means the  
5 price of carbon dioxide bid by the project owner—

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

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

10          (12) SUBSIDY PERIOD.—The term “subsidy pe-  
11 riod” means the period of time, not to exceed 10  
12 years, bid by the project owner during which the eli-  
13 gible project will be eligible to receive a subsidy  
14 under this section.

15          (13) SYNTHETIC PRICE OF CARBON DIOXIDE.—  
16 The term “synthetic price of carbon dioxide” means  
17 the price of carbon dioxide calculated by multiplying  
18 the market price of oil by the rate.

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

1 (b) ESTABLISHMENT; PURPOSE.—

2 (1) IN GENERAL.—There is established in the  
3 Department of Energy a variable price support pro-  
4 gram, to be known as the “Enhanced Recovery Pro-  
5 gram”, to accelerate the construction and operation  
6 of eligible advanced coal-fueled projects that capture  
7 carbon dioxide emissions and sell or use the carbon  
8 dioxide for enhanced recovery.

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

11 (A) to reduce the cost of carbon capture by  
12 providing variable price support to carbon cap-  
13 ture and sequestration project owners to enable  
14 the owner to finance eligible projects;

15 (B) to advance the development and wide-  
16 spread use of carbon capture technology; and

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

19 (c) VARIABLE PRICE SUPPORT.—

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

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

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

3 (C) for which a variable price support  
4 agreement to implement the payment terms de-  
5 scribed in subsections (f) and (g) is executed.

6 (2) PERIOD.—The Secretary shall provide vari-  
7 able price support to an eligible project under this  
8 section for a period of not more than 10 years begin-  
9 ning on the date on which the eligible project  
10 reaches design capacity.

11 (3) PROFIT SHARING AGREEMENTS.—

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

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

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

3 (i) the difference between the syn-  
4 thetic price of carbon dioxide and the  
5 strike price of carbon dioxide; less

6 (ii) any repayments made under sub-  
7 section (g) during that calendar quarter.

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

13 (e) SELECTION; COMPETITIVE BIDDING PROCESS.—

14 (1) IN GENERAL.—Once every year, the Sec-  
15 retary shall solicit bids from applicants for an alloca-  
16 tion of the funding made available under subsection  
17 (h) to provide variable price support to eligible  
18 projects.

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

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

24 (B) a rate;

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

3 (D) the projected tonnage of qualifying  
4 carbon dioxide that the eligible project will cap-  
5 ture and sell for enhanced recovery over the  
6 project period.

7 (3) SELECTION.—For each fiscal year, the Sec-  
8 retary shall—

9 (A) determine the cost to the Federal Gov-  
10 ernment of each bid submitted under paragraph  
11 (2); and

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

15 (ii) if the Secretary determines that no  
16 bids submitted under paragraph (2) are accept-  
17 able to the Secretary, reject the bids.

18 (f) ADMINISTRATION.—

19 (1) IN GENERAL.—In carrying out a variable  
20 price support agreement entered into under sub-  
21 section (c), the Secretary shall calculate the carbon  
22 dioxide price difference as a dollar amount equal  
23 to—

24 (A) the strike price of carbon dioxide; less



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

3 (2) PAYMENTS.—Payments between the Sec-  
4 retary and the project owner shall be made as fol-  
5 lows:

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

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

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

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

18 (i) the absolute value of the carbon di-  
19 oxide price difference calculated under  
20 paragraph (1); and

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

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

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

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

5 (ii) the daily price of West Texas in-  
6 termediate crude oil listed in the New York  
7 Mercantile Exchange.

8 (g) PAYMENTS TO THE FEDERAL GOVERNMENT.—

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

12 (2) REPAYMENTS.—The repayment terms of  
13 any variable price support agreement shall com-  
14 mence if, during the subsidy period of the agree-  
15 ment, and subject to the limitations described in  
16 paragraph (3), the amount calculated under sub-  
17 section (f)(1) is a positive number.

18 (3) LIMITATIONS.—

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

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

1 strike price of carbon dioxide, the project  
2 owner may elect to defer all or part of the  
3 repayment obligations of the project owner  
4 due in that quarter and any unpaid obliga-  
5 tions will continue to accrue interest.

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

12 (I) shall meet the scheduled re-  
13 payment obligations plus any deferred  
14 repayment obligations; but

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

19 (aa) the excess of the syn-  
20 thetic price of carbon dioxide  
21 over the strike price of carbon di-  
22 oxide; and

23 (bb) the output of the  
24 project.

1 (B) REPAYMENTS BEYOND SUBSIDY  
 2 TERM.—At the end of the subsidy period of the  
 3 agreement, the cumulative amount of any de-  
 4 ferred repayment obligations, together with ac-  
 5 crued interest, shall be amortized (with inter-  
 6 est) over the remainder of the full term of the  
 7 agreement.

8 (h) FUNDING.—

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

	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.

14 (2) EXTENSION.—If the amounts made avail-  
 15 able under paragraph (1) for a fiscal year are not  
 16 used during the applicable fiscal year—

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

19 (B) the amounts authorized under para-  
 20 graph (1) that were not used during the appli-

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

4 **SEC. 204. CLEAN ENERGY COAL BONDS.**

5 (a) IN GENERAL.—

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

10 **“SEC. 54G. CLEAN ENERGY COAL BONDS.**

11 “(a) CLEAN ENERGY COAL BOND.—For purposes of  
12 this subchapter—

13 “(1) IN GENERAL.—The term ‘clean energy  
14 coal bond’ means any bond issued as part of an  
15 issue if—

16 “(A) the bond is issued by a qualified  
17 issuer pursuant to an allocation by the Sec-  
18 retary to such issuer of a portion of the na-  
19 tional clean energy coal bond limitation under  
20 subsection (b)(2),

21 “(B) so much of the available project pro-  
22 ceeds from the sale of such issue as is equal to  
23 95 percent of the excess of—

24 “(i) the total available project pro-  
25 ceeds from the sale of such issue, over

1           “(ii) the amounts in a reasonably re-  
2           quired reserve (within the meaning of sec-  
3           tion 150(a)(3)) with respect to such issue,  
4           are to be used for capital expenditures incurred  
5           by qualified borrowers for 1 or more qualified  
6           projects,

7           “(C) the qualified issuer makes an irrev-  
8           ocable election to have this section apply,

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

12          “(E) in lieu of the requirements of section  
13          54A(d)(2), the issue meets the requirements of  
14          subsection (c).

15          “(2) QUALIFIED PROJECT; SPECIAL USE  
16          RULES.—

17          “(A) IN GENERAL.—The term ‘qualified  
18          project’ means a qualified clean coal project (as  
19          defined in subsection (h)(1)) placed in service  
20          by a qualified borrower.

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

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

4           “(C) REIMBURSEMENT.—For purposes of  
5           paragraph (1)(B), a clean energy coal bond  
6           may be issued to reimburse a qualified borrower  
7           for amounts paid after the date of the enact-  
8           ment of this section with respect to a qualified  
9           project, but only if—

10                   “(i) prior to the payment of the origi-  
11                   nal expenditure, the qualified borrower de-  
12                   clared its intent to reimburse such expendi-  
13                   ture with the proceeds of a clean energy  
14                   coal bond,

15                   “(ii) not later than 60 days after pay-  
16                   ment of the original expenditure, the quali-  
17                   fied issuer adopts an official intent to re-  
18                   imburse the original expenditure with such  
19                   proceeds, and

20                   “(iii) reimbursement is not made later  
21                   than 18 months after the date the original  
22                   expenditure is paid or the date the project  
23                   is placed in service or abandoned, but in  
24                   no event more than 3 years after the origi-  
25                   nal expenditure is paid.

1           “(D) TREATMENT OF CHANGES IN USE.—

2           For purposes of paragraph (1)(B), the proceeds  
3           of an issue shall not be treated as used for a  
4           qualified project to the extent that a qualified  
5           borrower takes any action within its control  
6           which causes such proceeds not to be used for  
7           a qualified project. The Secretary shall pre-  
8           scribe regulations specifying remedial actions  
9           that may be taken (including conditions to tak-  
10          ing such remedial actions) to prevent an action  
11          described in the preceding sentence from caus-  
12          ing a bond to fail to be a clean energy coal  
13          bond.

14          “(b) LIMITATION ON AMOUNT OF BONDS DES-  
15          IGNATED.—

16               “(1) NATIONAL LIMITATION.—There is a na-  
17          tional clean energy coal bond limitation of  
18          \$5,000,000,000.

19               “(2) ALLOCATION BY SECRETARY.—The Sec-  
20          retary shall allocate the amount described in para-  
21          graph (1) among qualified projects in such manner  
22          as the Secretary determines appropriate.

23          “(c) SPECIAL RULES RELATING TO EXPENDI-  
24          TURES.—



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

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

10           “(B) a binding commitment with a third  
11 party to spend at least 10 percent of such avail-  
12 able project proceeds from the sale of the issue  
13 will be incurred within the 6-month period be-  
14 ginning on the date of issuance of the clean en-  
15 ergy bond or, in the case of a clean energy bond  
16 the available project proceeds of which are to be  
17 loaned to 2 or more qualified borrowers, such  
18 binding commitment will be incurred within the  
19 6-month period beginning on the date of the  
20 loan of such proceeds to a qualified borrower,  
21 and

22           “(C) such projects will be completed with  
23 due diligence and the available project proceeds  
24 from the sale of the issue will be spent with due  
25 diligence.

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

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

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

1       “(e) COOPERATIVE ELECTRIC COMPANY; QUALIFIED  
2 ENERGY TAX CREDIT BOND LENDER; GOVERNMENTAL  
3 BODY; QUALIFIED BORROWER.—For purposes of this sec-  
4 tion:

5           “(1) COOPERATIVE ELECTRIC COMPANY.—The  
6 term ‘cooperative electric company’ means a mutual  
7 or cooperative electric company described in section  
8 501(c)(12) or section 1381(a)(2)(C), or a not-for-  
9 profit electric utility which has received a loan or  
10 loan guarantee under the Rural Electrification Act.

11           “(2) CLEAN ENERGY BOND LENDER.—The  
12 term ‘clean energy bond lender’ means a lender  
13 which is a cooperative which is owned by, or has out-  
14 standing loans to, 100 or more cooperative electric  
15 companies and is in existence on February 1, 2002,  
16 and shall include any affiliated entity which is con-  
17 trolled by such lender.

18           “(3) PUBLIC POWER ENTITY.—The term ‘public  
19 power entity’ means a State utility with a service ob-  
20 ligation, as such terms are defined in section 217 of  
21 the Federal Power Act (as in effect on the date of  
22 enactment of this paragraph).

23           “(4) QUALIFIED ISSUER.—The term ‘qualified  
24 issuer’ means—

25           “(A) a clean energy bond lender,

1                   “(B) a cooperative electric company, or

2                   “(C) a public power entity.

3                   “(5) QUALIFIED BORROWER.—The term ‘quali-  
4                   fied borrower’ means—

5                   “(A) a mutual or cooperative electric com-  
6                   pany described in section 501(c)(12) or  
7                   1381(a)(2)(C), or

8                   “(B) a public power entity.

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

14                  “(g) GROSS-UP OF PAYMENT TO ISSUERS IN CASE  
15 OF SEQUESTRATION.—In the case of any payment due  
16 under section 6431(b) by reason of section  
17 6431(f)(3)(A)(v) which is subject to reduction in accord-  
18 ance with a sequestration report prepared by the Director  
19 of the Office of Management and Budget pursuant to the  
20 Balanced Budget and Emergency Deficit Control Act of  
21 1985 or the Statutory Pay-As-You-Go Act of 2010—

22                  “(1) the amount of such payment shall be in-  
23                  creased to an amount equal to the product of—

1           “(A) the amount of such payment as deter-  
 2           mined before the reduction in accordance with  
 3           the sequestration report, and

4           “(B) a fraction the numerator of which is  
 5           1 and the denominator of which is the excess  
 6           of—

7                     “(i) 100, over

8                     “(ii) the percentage by which such  
 9                     payment is reduced (without regard to this  
 10                    subsection) in accordance with the seques-  
 11                    tration report, and

12           “(2) such increase shall be treated as not sub-  
 13           ject to the sequestration report.

14           “(h) OTHER DEFINITIONS AND SPECIAL RULES.—

15           For purposes of this section:

16                     “(1) QUALIFIED CLEAN COAL PROJECT.—The  
 17                     term ‘qualified clean coal project’ means—

18                     “(A) an atmospheric pollution control facil-  
 19                     ity (within the meaning of section 169(d)(1)),

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

22                     “(C) a qualified facility (within the mean-  
 23                     ing of section 45Q(c)), or

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

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

9 “(2) DEFINITIONS.—

10 “(A) INTEGRATED GASIFICATION COM-  
11 BINED CYCLE UNIT.—The term ‘integrated gas-  
12 ification combined cycle unit’ means an electric  
13 generation unit that produces electricity by con-  
14 verting coal to synthesis gas that is used to fuel  
15 a combined-cycle plant that produces electricity  
16 from both a combustion turbine (including a  
17 combustion turbine/fuel cell hybrid) and a  
18 steam turbine.

19 “(B) POOLED FINANCING BOND.—The  
20 term ‘pooled financing bond’ shall have the  
21 meaning given such term by section  
22 149(f)(6)(A).

23 “(C) SUPERCRITICAL COAL-FIRED POWER  
24 PLANT.—The term ‘supercritical coal-fired  
25 power plant’ means a coal-fired power plant op-

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

3 “(D) ULTRASUPERCRITICAL COAL-FIRED  
4 POWER PLANT.—The term ‘ultrasupercritical  
5 coal-fired power plant’ means a power plant de-  
6 scribed in subparagraph (C) operating above  
7 supercritical pressure and at steam tempera-  
8 tures above 1,100 degrees Fahrenheit.”.

9 (2) BONDS NOT SUBJECT TO MATURITY LIMITA-  
10 TION.—Paragraph (5) of section 54A(d) of such  
11 Code is amended by adding at the end the following  
12 new subparagraph:

13 “(C) SPECIAL RULE FOR CLEAN ENERGY  
14 COAL BONDS.—The requirements of this para-  
15 graph shall not apply to a clean energy coal  
16 bond under section 54G.”.

17 (3) CONFORMING AMENDMENTS.—

18 (A) Paragraph (1) of section 54A(d) of the  
19 Internal Revenue Code of 1986 is amended by  
20 striking “or” at the end of subparagraph (D),  
21 by inserting “or” at the end of subparagraph  
22 (E), and by inserting after subparagraph (E)  
23 the following new subparagraph:

24 “(F) a clean energy coal bond,”.

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

“Sec. 54G. Clean energy coal bonds.”.

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

7 (1) IN GENERAL.—Section 6431(f)(3)(A) of the  
 8 Internal Revenue Code of 1986 is amended by strik-  
 9 ing “or” at the end of clause (iii), by striking “and”  
 10 at the end of clause (iv) and inserting “or”, and by  
 11 adding at the end the following new clause:

12 “(v) a clean energy coal bond (as de-  
 13 fined in section 54G), and”.

14 (2) SPECIAL RULE.—Paragraph (2) of section  
 15 6431(f) of such Code is amended—

16 (A) by striking “clause (i) or (ii)” and in-  
 17 serting “clause (i), (ii), or (v)”; and

18 (B) by striking the heading and inserting  
 19 “SPECIAL RULE FOR CERTAIN BONDS”.

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

## 23 **TITLE III—REPORTS REQUIRED**

### 24 **SEC. 301. DEFINITIONS.**

25 In this title:



1           (1) CCS.—the term “CCS” means carbon cap-  
2           ture and storage, including geological storage and  
3           enhanced oil recovery, as well as other forms of car-  
4           bon utilization.

5           (2) SECRETARY.—The term “Secretary” means  
6           the Secretary of Energy.

7   **SEC. 302. REPORTS TO CONGRESS.**

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

13           (1) provides a comprehensive review of the an-  
14           nual progress made by the National Laboratories  
15           and the offices of the Department of Energy that  
16           are currently active in researching and developing  
17           clean coal technologies and CCS, including—

18           (A) the status of carbon capture, trans-  
19           port, storage, and utilization, including—

20           (i) an overview and evaluation of key  
21           technologies;

22           (ii) a description of existing CCS in-  
23           frastructure and demonstration projects in  
24           the United States, including the status of  
25           permitting, financing, and construction

1 and the expected date of commencement of  
2 operations;

3 (iii) the associated costs of key tech-  
4 nologies, including the amount and type of  
5 Federal funding; and

6 (iv) an estimated timeline to commer-  
7 cial scalability;

8 (B) a description of the current barriers  
9 for CCS deployment and commercialization, in-  
10 cluding—

11 (i) market failures;

12 (ii) regulatory framework;

13 (iii) long-term liability for carbon stor-  
14 age;

15 (iv) public outreach; and

16 (v) annual progress on overcoming the  
17 identified barriers;

18 (C) possible solutions to address the bar-  
19 riers described in subparagraph (B), includ-  
20 ing—

21 (i) funding options for CCS projects;

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

1 (iii) suggestions for Federal Govern-  
2 ment action on effective public outreach;  
3 and

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

7 (i) a clear description of how the Fed-  
8 eral Government has participated in each  
9 project, including the amount and type of  
10 Federal funding;

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

14 (iii) recommendations on—

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

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

19 and

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

23 (A) detailing the type of Federal Govern-  
24 ment activity in each consortium;

1 (B) including a description of any “lessons  
2 learned” by participants from the Federal Gov-  
3 ernment as a direct result of consortium activ-  
4 ity;

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

7 (D) making recommendations for the in-  
8 volvement of the Federal Government in each  
9 consortium including—

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

12 (ii) how the Federal Government  
13 could increase the productivity of the con-  
14 sortium, if possible.

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

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

23 (A) the SaskPower Boundary Dam Inte-  
24 grated CCS Demonstration Project;

25 (B) the Shell Quest Project; and

- 1 (C) the Alberta Carbon Trunk Line; and
- 2 (2) determines—
- 3 (A) whether operation of the CCS system
- 4 is meeting the project goals;
- 5 (B) the economic status of the project, in-
- 6 cluding—
- 7 (i) an overview of the ratio of private
- 8 and public funds for capital costs;
- 9 (ii) whether the project is generating
- 10 revenue; and
- 11 (iii) the current return on investment;
- 12 (C) whether the project is the type of
- 13 project that the Federal Government should
- 14 replicate in the United States to move CCS for-
- 15 ward on a pilot level;
- 16 (D) whether the project could comply with
- 17 subparagraphs (E) or (F) if the project should
- 18 be replicated under subparagraph (C);
- 19 (E) whether the Federal Government and
- 20 private industry in the United States can work
- 21 together to develop a similar pilot project in the
- 22 United States; and
- 23 (F) if the Federal Government and private
- 24 industry cannot work together under subpara-
- 25 graph (E), whether the Federal Government

- 1 should work jointly with Canada on a similar
- 2 project.

