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S. 727

To reauthorize a Department of Energy program to develop and implement accelerated research, development, and demonstration projects for advanced clean coal technologies for use in coal-based electricity generating facilities, to amend the Internal Revenue Code of 1986 to provide incentives for the use of those technologies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 27, 2003

Mr. BYRD (for himself, Mr. ROCKEFELLER, Mr. THOMAS, Mr. BURNS, Mr. DORGAN, Mr. ALLARD, Mr. DURBIN, Mr. VOINOVICH, Mr. BAYH, Mr. ENZI, Mr. CAMPBELL, and Mr. CONRAD) introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

To reauthorize a Department of Energy program to develop and implement accelerated research, development, and demonstration projects for advanced clean coal technologies for use in coal-based electricity generating facilities, to amend the Internal Revenue Code of 1986 to provide incentives for the use of those 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,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the
 3 “National Coal Research, Development, and Demonstra-
 4 tion Act of 2003”.

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

Sec. 1. Short title; table of contents.

TITLE I—COAL RESEARCH AND DEVELOPMENT

Sec. 101. Definitions.

Sec. 102. Cost and performance goals.

Sec. 103. Production and generation of coal-based power.

Sec. 104. Coal and related technologies research and development programs.

TITLE II—CLEAN COAL POWER INITIATIVE

Sec. 201. Definition of Secretary.

Sec. 202. Project criteria.

Sec. 203. Reports.

Sec. 204. Authorization of appropriations.

TITLE III—CLEAN COAL INCENTIVES

Subtitle A—Credit for Emission Reductions and Efficiency Improvements in
Existing Coal-Based Electricity Generation Facilities

Sec. 301. Credit for production from a qualifying clean coal technology unit.

Subtitle B—Incentives for Early Commercial Applications of Advanced Clean
Coal Technologies

Sec. 311. Credit for investment in qualifying advanced clean coal technology.

Sec. 312. Credit for production from a qualifying advanced clean coal tech-
nology unit.

Subtitle C—Treatment of Persons Not Able To Use Entire Credit

Sec. 321. Treatment of persons not able to use entire credit.

7 **TITLE I—COAL RESEARCH AND**
 8 **DEVELOPMENT**

9 **SEC. 101. DEFINITIONS.**

10 In this title:

1 (1) COST AND PERFORMANCE GOALS.—The
2 term “cost and performance goals” means the cost
3 and performance goals identified under section 102.

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

6 **SEC. 102. COST AND PERFORMANCE GOALS.**

7 (a) ESTABLISHMENT OF COST AND PERFORMANCE
8 GOALS.—

9 (1) IN GENERAL.—The Secretary shall conduct
10 an assessment that identifies cost and performance
11 goals of technologies that would permit the contin-
12 ued cost-competitive use of coal for electricity gen-
13 eration, as chemical feedstocks, and as transpor-
14 tation fuel in—

15 (A) 2007;

16 (B) 2015; and

17 (C) 2020 and thereafter.

18 (2) CONSULTATION.—In identifying the cost
19 and performance goals, the Secretary shall—

20 (A) consider activities and studies under-
21 taken by industry in cooperation with the De-
22 partment of Energy in support of the assess-
23 ment; and

24 (B) consult with interested entities, includ-
25 ing—

- 1 (i) coal producers;
- 2 (ii) industries using coal;
- 3 (iii) organizations that promote coal
- 4 and advanced coal technologies;
- 5 (iv) environmental organizations; and
- 6 (v) organizations representing work-
- 7 ers.

8 (3) TIMING.—The Secretary shall—

9 (A) not later than 120 days after the date
10 of enactment of this Act, issue draft cost and
11 performance goals for public comment; and

12 (B) not later than 180 days after the date
13 of enactment of this Act, after taking into con-
14 sideration public comment, submit to Congress
15 the final cost and performance goals.

16 (b) STUDY.—

17 (1) IN GENERAL.—Not later than 1 year after
18 the date of enactment of this Act, and once every 2
19 years thereafter through 2016, the Secretary, in co-
20 operation with other appropriate Federal agencies,
21 shall conduct a study to—

22 (A) identify technologies that, by them-
23 selves or in combination with other tech-
24 nologies, may be capable of achieving the cost
25 and performance goals;

1 (B) assess the costs that would be incurred
2 by, and the period of time that would be re-
3 quired for, the development and demonstration
4 of technologies that, by themselves or in com-
5 bination with other technologies, contribute to
6 the achievement of the cost and performance
7 goals;

8 (C) develop recommendations for tech-
9 nology development programs that the Depart-
10 ment of Energy could carry out, in cooperation
11 with industry, to develop and demonstrate tech-
12 nologies that, by themselves or in combination
13 with other technologies, achieve the cost and
14 performance goals; and

15 (D)(i) develop recommendations for addi-
16 tional authorities required to achieve the cost
17 and performance goals; and

18 (ii) review and recommend changes, if any,
19 to the cost and performance goals if the Sec-
20 retary determines that changes are necessary as
21 a result of ongoing research, development, and
22 demonstration of technologies.

23 (2) EXPERT ADVICE.—In carrying out this sec-
24 tion, the Secretary shall give due weight to the ex-

1 pert advice of representatives of the entities de-
2 scribed in subsection (a)(2)(B).

3 **SEC. 103. PRODUCTION AND GENERATION OF COAL-BASED**
4 **POWER.**

5 (a) IN GENERAL.—The Secretary shall carry out a
6 technology research, development, and demonstration pro-
7 gram to facilitate production and generation of coal-based
8 power through methods and equipment under—

9 (1) this title;

10 (2) the Federal Nonnuclear Energy Research
11 and Development Act of 1974 (42 U.S.C. 5901 et
12 seq.);

13 (3) the Energy Reorganization Act of 1974 (42
14 U.S.C. 5801 et seq.); and

15 (4) title XVI of the Energy Policy Act of 1992
16 (42 U.S.C. 13381 et seq.).

17 (b) COST AND PERFORMANCE GOALS.—The program
18 under subsection (a) shall be designed to achieve the cost
19 and performance goals.

20 **SEC. 104. COAL AND RELATED TECHNOLOGIES RESEARCH**
21 **AND DEVELOPMENT PROGRAMS.**

22 (a) IN GENERAL.—The Secretary shall carry out coal
23 and related technologies research and development pro-
24 grams that include—

25 (1) innovations for existing plants;

- 1 (2) integrated gasification combined cycle sys-
- 2 tems;
- 3 (3) advanced combustion systems;
- 4 (4) turbines for synthesis gas derived from coal;
- 5 (5) carbon capture and sequestration research
- 6 and development;
- 7 (6) coal-derived transportation fuels and chemi-
- 8 cals;
- 9 (7) solid fuels and feedstocks; and
- 10 (8) advanced coal-related research.

11 (b) REPORT.—At least 30 days before using funds
12 made available under subsection (c), the Secretary shall
13 submit to Congress a report that—

14 (1) describes the proposed use of the funds; and

15 (2) contains a plan that includes—

16 (A) a detailed description of the manner in
17 which any proposals will be solicited and evalu-
18 ated, including a list of all activities expected to
19 be undertaken;

20 (B) a detailed list of technical milestones
21 for each coal technology and related technology
22 that will be pursued; and

23 (C) a description of the manner in which
24 the programs authorized by this section will be

1 carried out so as to complement and not dupli-
 2 cate activities authorized under title II.

3 (c) AUTHORIZATION OF APPROPRIATIONS.—

4 (1) IN GENERAL.—There are authorized to be
 5 appropriated to carry out this section—

6 (A) \$200,000,000 for fiscal year 2004;

7 (B) \$210,000,000 for fiscal year 2005; and

8 (C) \$220,500,000 for fiscal year 2006.

9 (2) AVAILABILITY.—Funds made available
 10 under paragraph (1) shall remain available until ex-
 11 pended.

12 **TITLE II—CLEAN COAL POWER** 13 **INITIATIVE**

14 **SEC. 201. DEFINITION OF SECRETARY.**

15 In this title, the term “Secretary” means the Sec-
 16 retary of Energy.

17 **SEC. 202. PROJECT CRITERIA.**

18 (a) IN GENERAL.—The Secretary shall carry out a
 19 program under which the Secretary shall provide funding
 20 for projects that advance efficiency, environmental per-
 21 formance, and cost competitiveness well beyond the level
 22 of technologies that are in operation or have been dem-
 23 onstrated as of the date of enactment of this Act.

24 (b) TECHNICAL CRITERIA FOR CLEAN COAL POWER
 25 INITIATIVE.—

1 (1) GASIFICATION.—

2 (A) IN GENERAL.—In allocating the funds
3 made available under section 204, the Secretary
4 shall ensure that not less than 60 nor more
5 than 80 percent of the funds are used for—

6 (i) coal-based gasification tech-
7 nologies;

8 (ii) coal-based projects that include
9 the separation and capture of carbon diox-
10 ide; or

11 (iii) coal-based projects that include
12 gasification combined cycle systems, gasifi-
13 cation fuel cells, gasification coproduction,
14 or hybrid gasification or combustion.

15 (B) TECHNICAL MILESTONES.—

16 (i) IN GENERAL.—The Secretary shall
17 establish technical milestones specifying
18 emissions levels that coal gasification
19 projects shall be designed, and reasonably
20 expected, to achieve.

21 (ii) INCREASING RESTRICTIVENESS.—
22 The milestones shall become more restric-
23 tive through the life of the program.

24 (iii) REQUIREMENTS.—The milestones
25 shall be designed to develop, not later than

1 2020, coal gasification projects that are ca-
2 pable of—

3 (I) removing 99 percent of sulfur
4 dioxide;

5 (II) emitting not more than .05
6 lbs of NO_x per million Btu;

7 (III) achieving substantial reduc-
8 tions in mercury emissions; and

9 (IV) achieving a thermal effi-
10 ciency of—

11 (aa) 60 percent for coal of
12 more than 9,000 Btu;

13 (bb) 59 percent for coal of
14 7,000 to 9,000 Btu; and

15 (cc) 57 percent for coal of
16 less than 7,000 Btu.

17 (2) OTHER PROJECTS.—

18 (A) IN GENERAL.—For projects not de-
19 scribed in paragraph (1), the Secretary shall es-
20 tablish technical milestones specifying emissions
21 levels that the projects shall be designed, and
22 reasonably expected, to achieve.

23 (B) INCREASING RESTRICTIVENESS.—The
24 milestones shall become more restrictive
25 through the life of the program.

1 (C) REQUIREMENTS.—The milestones shall
2 be designed to develop, by 2010, projects that
3 are capable of—

4 (i) removing 97 percent of sulfur diox-
5 ide;

6 (ii) emitting not more than .08 lbs of
7 NOx per million Btu;

8 (iii) achieving substantial reductions
9 in mercury emissions; and

10 (iv) achieving a thermal efficiency
11 of—

12 (I) 45 percent for coal of more
13 than 9,000 Btu;

14 (II) 44 percent for coal of 7,000
15 to 9,000 Btu; and

16 (III) 42 percent for coal of less
17 than 7,000 Btu.

18 (3) CONSULTATION.—Before establishing the
19 technical milestones under paragraphs (1) and (2),
20 the Secretary shall consult with—

21 (A) the Administrator of the Environ-
22 mental Protection Agency; and

23 (B) interested entities, including—

24 (i) coal producers;

25 (ii) industries using coal;

- 1 (iii) organizations promoting coal or
2 advanced coal technologies;
3 (iv) environmental organizations; and
4 (v) organizations representing work-
5 ers.

6 (4) EXISTING UNITS.—In the case of a project
7 at a unit in existence on the date of enactment of
8 this Act, in lieu of the thermal efficiency require-
9 ments specified in paragraphs (1)(B)(iii)(IV) and
10 (2)(C)(iv), the project shall be designed to achieve
11 an overall thermal design efficiency improvement,
12 compared to the efficiency of the unit as operated on
13 the date of enactment of this Act, of not less than—

14 (A) 7 percent for coal of more than 9,000
15 Btu;

16 (B) 6 percent for coal of 7,000 to 9,000
17 Btu; or

18 (C) 4 percent for coal of less than 7,000
19 Btu.

20 (e) FINANCIAL CRITERIA.—The Secretary shall not
21 provide funding under this title unless the recipient docu-
22 ments to the satisfaction of the Secretary that—

- 23 (1) the recipient is financially viable without the
24 receipt of additional Federal funding;

1 (2) the recipient will provide sufficient informa-
2 tion to the Secretary for the Secretary to ensure
3 that the funds are spent efficiently and effectively;
4 and

5 (3) a market exists for the technology to be
6 demonstrated or applied, as evidenced by statements
7 of interest in writing from potential purchasers of
8 the technology.

9 (d) FINANCIAL ASSISTANCE.—The Secretary shall
10 provide financial assistance to projects that—

11 (1) meet the requirements of subsections (a),
12 (b), and (c); and

13 (2) are likely to—

14 (A) achieve overall cost reductions in the
15 use of coal to generate useful forms of energy;

16 (B) improve the competitiveness of coal
17 among various forms of energy in order to
18 maintain a diversity of fuel choices in the
19 United States to meet electricity generation re-
20 quirements; and

21 (C) demonstrate methods and equipment
22 that are applicable to 25 percent of the elec-
23 tricity generating facilities that use coal as the
24 primary feedstock as of the date of enactment
25 of this Act.

1 (e) CLEAN COAL CENTERS OF EXCELLENCE.—

2 (1) IN GENERAL.—As part of the program au-
3 thorized under this section, the Secretary shall pro-
4 vide competitive, merit-based grants to universities
5 for the establishment of Centers of Excellence for
6 Energy Systems of the Future.

7 (2) ELIGIBLE UNIVERSITIES.—The Secretary
8 shall provide grants under paragraph (1) to univer-
9 sities that show the greatest potential for advancing
10 new clean coal technologies.

11 (f) FEDERAL SHARE.—The Federal share of the cost
12 of a coal or related technology project funded under this
13 section shall not exceed 50 percent.

14 (g) APPLICABILITY.—No technology, or level of emis-
15 sion reduction, shall be treated as adequately dem-
16 onstrated for purposes of section 111 of the Clean Air Act
17 (42 U.S.C. 7411), achievable for purposes of section 169
18 of that Act (42 U.S.C. 7479), or achievable in practice
19 for purposes of section 171(3)(B) of that Act (42 U.S.C.
20 7501(3)(B)) solely by reason of the use of that technology,
21 or the achievement of that emission reduction, by 1 or
22 more facilities receiving assistance under this title.

23 **SEC. 203. REPORTS.**

24 (a) REPORT ON TECHNICAL MILESTONES.—Not
25 later than 1 year after the date of enactment of this Act,

1 and once every 2 years thereafter through 2011, the Sec-
2 retary, in consultation with other Federal agencies as ap-
3 propriate, shall submit to the Committee on Energy and
4 Commerce and the Committee on Science of the House
5 of Representatives, and to the Senate, a report that de-
6 scribes—

7 (1) the technical milestones established under
8 section 202, including a description of how the mile-
9 stones ensure that progress will be made toward
10 meeting the requirements of paragraphs (1)(B) and
11 (2) of section 202(b); and

12 (2) the status of projects funded under this
13 title.

14 (b) REPORT BEFORE USING FUNDING.—At least 30
15 days before using funds made available under subsection
16 (c), the Secretary shall submit to the Committee on En-
17 ergy and Commerce and the Committee on Science of the
18 House of Representatives, and to the Senate, a report
19 that—

20 (1) describes the proposed use of funds; and

21 (2) includes—

22 (A) a detailed assessment of whether the
23 aggregate funding levels provided under section
24 204 are the appropriate funding levels for the
25 program under this title;

1 (B) a detailed description of the manner in
2 which proposals will be solicited and evaluated,
3 including a list of all activities expected to be
4 undertaken;

5 (C) a detailed list of technical milestones
6 for each coal technology and related technology
7 that will be pursued; and

8 (D) a detailed description of how the pro-
9 gram will avoid problems enumerated in Gen-
10 eral Accounting Office reports on the Clean
11 Coal Technology Program, including problems
12 that resulted in the failure to expend funds and
13 in projects that failed financially or scientif-
14 ically.

15 (c) **APPLICABILITY.**—Paragraph (1) shall not apply
16 to a project selected before September 30, 2003.

17 **SEC. 204. AUTHORIZATION OF APPROPRIATIONS.**

18 (a) **IN GENERAL.**—There are authorized to be appro-
19 priated to carry out this title \$200,000,000 for each of
20 fiscal years 2003 through 2011.

21 (b) **AVAILABILITY.**—Funds made available under
22 subsection (a) shall remain available until expended.

1 **TITLE III—CLEAN COAL**
2 **INCENTIVES**
3 **Subtitle A—Credit for Emission Re-**
4 **ductions and Efficiency Im-**
5 **provements in Existing Coal-**
6 **Based Electricity Generation**
7 **Facilities**

8 **SEC. 301. CREDIT FOR PRODUCTION FROM A QUALIFYING**
9 **CLEAN COAL TECHNOLOGY UNIT.**

10 (a) CREDIT FOR PRODUCTION FROM A QUALIFYING
11 CLEAN COAL TECHNOLOGY UNIT.—Subpart D of part IV
12 of subchapter A of chapter 1 of the Internal Revenue Code
13 of 1986 (relating to business related credits) is amended
14 by adding at the end the following new section:

15 **“SEC. 45G. CREDIT FOR PRODUCTION FROM A QUALIFYING**
16 **CLEAN COAL TECHNOLOGY UNIT.**

17 “(a) GENERAL RULE.—For purposes of section 38,
18 the qualifying clean coal technology production credit of
19 any taxpayer for any taxable year is equal to the product
20 of—

21 “(1) the applicable amount of clean coal tech-
22 nology production credit, multiplied by

23 “(2) the applicable percentage of the kilowatt
24 hours of electricity produced by the taxpayer during
25 such taxable year at a qualifying clean coal tech-

1 nology unit, but only if such production occurs dur-
2 ing the 10-year period beginning on the date the
3 unit was returned to service after becoming a quali-
4 fying clean coal technology unit.

5 “(b) APPLICABLE AMOUNT.—

6 “(1) IN GENERAL.—For purposes of this sec-
7 tion, the applicable amount of clean coal technology
8 production credit is equal to \$0.0034 per kilowatt-
9 hour of electricity produced and the equivalent heat
10 value of other fuels or chemicals produced from not
11 more than 300,000 kilowatts of nameplate capacity
12 at the same qualifying clean coal technology unit.

13 “(2) INFLATION ADJUSTMENT.—For calendar
14 years after 2003, the applicable amount of clean coal
15 technology production credit shall be adjusted by
16 multiplying such amount by the inflation adjustment
17 factor for the calendar year in which the amount is
18 applied. If any amount as increased under the pre-
19 ceding sentence is not a multiple of 0.01 cent, such
20 amount shall be rounded to the nearest multiple of
21 0.01 cent.

22 “(c) APPLICABLE PERCENTAGE.—For purposes of
23 this section, with respect to any qualifying clean coal tech-
24 nology unit, the applicable percentage is the percentage
25 equal to the ratio which the portion of the national mega-

1 watt capacity limitation allocated to the taxpayer with re-
2 spect to such unit under subsection (e) bears to the total
3 megawatt capacity of such unit.

4 “(d) DEFINITIONS AND SPECIAL RULES.—For pur-
5 poses of this section—

6 “(1) QUALIFYING CLEAN COAL TECHNOLOGY
7 UNIT.—The term ‘qualifying clean coal technology
8 unit’ means a clean coal technology unit of the tax-
9 payer which—

10 “(A) on the date of the enactment of this
11 section was a coal-based electricity generating
12 steam generator-turbine unit which was not a
13 clean coal technology unit,

14 “(B) on such date of enactment had a
15 nameplate capacity rating of not more than
16 300,000 kilowatts,

17 “(C) becomes a clean coal technology unit
18 as the result of the retrofitting, repowering, or
19 replacement of the unit with clean coal tech-
20 nology, which nameplate capacity may then be
21 greater than 300,000 kilowatts, during the 10-
22 year period beginning on such date of enact-
23 ment,

24 “(D) is not receiving nor is scheduled to
25 receive funding under the Clean Coal Tech-

1 nology Program, the Power Plant Improvement
2 Initiative, or the Clean Coal Power Initiative
3 administered by the Secretary of Energy, and

4 “(E) receives an allocation of a portion of
5 the national megawatt capacity limitation under
6 subsection (e).

7 “(2) CLEAN COAL TECHNOLOGY UNIT.—The
8 term ‘clean coal technology unit’ means a unit
9 which—

10 “(A) uses clean coal technology, including
11 advanced pulverized coal or atmospheric fluid-
12 ized bed combustion, pressurized fluidized bed
13 combustion, integrated gasification combined
14 cycle, or any other technology for the produc-
15 tion of electricity,

16 “(B) uses at least 75 percent coal to
17 produce 50 percent or more of its thermal out-
18 put as electricity,

19 “(C) has a design net heat rate of at least
20 500 less than that of such unit as described in
21 paragraph (1)(A),

22 “(D) has a maximum design net heat rate
23 of not more than 9,500, and

24 “(E) meets the pollution control require-
25 ments of paragraph (3).

1 “(3) POLLUTION CONTROL REQUIREMENTS.—

2 “(A) IN GENERAL.—A unit meets the re-
3 quirements of this paragraph if—

4 “(i) its emissions of sulfur dioxide, ni-
5 trogen oxide, or particulates meet the
6 lower of the emission levels for each such
7 emission specified in—

8 “(I) subparagraph (B), or

9 “(II) the new source performance
10 standards of the Clean Air Act (42
11 U.S.C. 7411) which are in effect for
12 the category of source at the time of
13 the retrofitting, repowering, or re-
14 placement of the unit, and

15 “(ii) its emissions do not exceed any
16 relevant emission level specified by regula-
17 tion pursuant to the hazardous air pollut-
18 ant requirements of the Clean Air Act (42
19 U.S.C. 7412) in effect at the time of the
20 retrofitting, repowering, or replacement.

21 “(B) SPECIFIC LEVELS.—The levels speci-
22 fied in this subparagraph are—

23 “(i) in the case of sulfur dioxide emis-
24 sions, 50 percent of the sulfur dioxide
25 emission levels specified in the new source

1 performance standards of the Clean Air
2 Act (42 U.S.C. 7411) in effect on the date
3 of the enactment of this section for the
4 category of source,

5 “(ii) in the case of nitrogen oxide
6 emissions—

7 “(I) 0.1 pound per million Btu of
8 heat input if the unit is not a cyclone-
9 fired boiler, and

10 “(II) if the unit is a cyclone-fired
11 boiler, 15 percent of the uncontrolled
12 nitrogen oxide emissions from such
13 boilers, and

14 “(iii) in the case of particulate emis-
15 sions, 0.02 pound per million Btu of heat
16 input.

17 “(4) DESIGN NET HEAT RATE.—The design net
18 heat rate with respect to any unit, measured in Btu
19 per kilowatt hour (HHV)—

20 “(A) shall be based on the design annual
21 heat input to and the design annual net elec-
22 trical power, fuels, and chemicals output from
23 such unit (determined without regard to such
24 unit’s co-generation of steam),

1 “(B) shall be adjusted for the heat content
 2 of the design coal to be used by the unit if it
 3 is less than 12,000 Btu per pound according to
 4 the following formula:

5 Design net heat rate = Unit net heat rate X [1-
 6 {((12,000-design coal heat content, Btu per pound)/
 7 1,000) X 0.013}],

8 “(C) shall be corrected for the site ref-
 9 erence conditions of—

10 “(i) elevation above sea level of 500
 11 feet,

12 “(ii) air pressure of 14.4 pounds per
 13 square inch absolute (psia),

14 “(iii) temperature, dry bulb of 63°F,

15 “(iv) temperature, wet bulb of 54°F,

16 and

17 “(v) relative humidity of 55 percent,

18 and

19 “(D) shall be adjusted (or credit given) for
 20 any unit which installs carbon capture controls
 21 which remove not less than 50 percent of the
 22 unit’s carbon dioxide emissions up to the design
 23 net heat rate level which would have resulted
 24 without installation of carbon capture controls.

1 “(5) HHV.—The term ‘HHV’ means higher
2 heating value.

3 “(6) APPLICATION OF CERTAIN RULES.—The
4 rules of paragraphs (3), (4), and (5) of section 45(d)
5 shall apply.

6 “(7) INFLATION ADJUSTMENT FACTOR.—

7 “(A) IN GENERAL.—The term ‘inflation
8 adjustment factor’ means, with respect to a cal-
9 endar year, a fraction the numerator of which
10 is the GDP implicit price deflator for the pre-
11 ceding calendar year and the denominator of
12 which is the GDP implicit price deflator for the
13 calendar year 2002.

14 “(B) GDP IMPLICIT PRICE DEFLATOR.—
15 The term ‘GDP implicit price deflator’ means
16 the most recent revision of the implicit price
17 deflator for the gross domestic product as com-
18 puted by the Department of Commerce before
19 March 15 of the calendar year.

20 “(8) NONCOMPLIANCE WITH POLLUTION
21 LAWS.—For purposes of this section, a unit which is
22 not in compliance with the applicable State and Fed-
23 eral pollution prevention, control, and permit re-
24 quirements for any period of time shall not be con-

1 sidered to be a qualifying clean coal technology unit
2 during such period.

3 “(e) NATIONAL LIMITATION ON THE AGGREGATE CA-
4 PACITY OF QUALIFYING CLEAN COAL TECHNOLOGY
5 UNITS.—

6 “(1) IN GENERAL.—For purposes of subsection
7 (d)(1)(E), the national megawatt capacity limitation
8 for qualifying clean coal technology units is 4,000
9 megawatts.

10 “(2) ALLOCATION OF LIMITATION.—The Sec-
11 retary shall allocate the national megawatt capacity
12 limitation for qualifying clean coal technology units
13 in such manner as the Secretary may prescribe
14 under the regulations under paragraph (3), except
15 that the allocation with respect to each such unit
16 shall not exceed 300,000 kilowatts.

17 “(3) REGULATIONS.—Not later than 6 months
18 after the date of the enactment of this section, the
19 Secretary shall prescribe such regulations as may be
20 necessary or appropriate—

21 “(A) to carry out the purposes of this sub-
22 section,

23 “(B) to limit the capacity of any qualifying
24 clean coal technology unit to which this section
25 applies so that the combined megawatt capacity

1 allocated to all such units under this subsection
2 when all such units are placed in service during
3 the 10-year period described in subsection
4 (d)(1)(C), does not exceed 4,000 megawatts,

5 “(C) to provide a certification process
6 under which the Secretary, in consultation with
7 the Secretary of Energy, shall approve and allo-
8 cate the national megawatt capacity limita-
9 tion—

10 “(i) to encourage that units with the
11 highest thermal efficiencies, when adjusted
12 for the heat content of the design coal and
13 site reference conditions described in sub-
14 section (d)(4)(C), and superior environ-
15 mental performance compared to other
16 proposals, be placed in service as soon as
17 possible, and

18 “(ii) to allocate capacity to taxpayers
19 which have a definite and credible plan for
20 placing into commercial operation a quali-
21 fying clean coal technology unit, includ-
22 ing—

23 “(I) a site,

24 “(II) contractual commitments
25 for procurement and construction or,

1 in the case of regulated utilities, the
2 agreement of the State utility commis-
3 sion,

4 “(III) filings for all necessary
5 preconstruction approvals,

6 “(IV) a demonstrated record of
7 having successfully completed com-
8 parable projects on a timely basis, and

9 “(V) such other factors that the
10 Secretary determines are appropriate,

11 “(D) to allocate the national megawatt ca-
12 pacity limitation to a portion of the capacity of
13 a qualifying clean coal technology unit if the
14 Secretary determines that such an allocation
15 would maximize the amount of efficient produc-
16 tion encouraged with the available tax credits,

17 “(E) to set progress requirements and con-
18 ditional approvals so that capacity allocations
19 for clean coal technology units which become
20 unlikely to meet the necessary conditions for
21 qualifying can be reallocated by the Secretary
22 to other clean coal technology units, and

23 “(F) to provide taxpayers with opportuni-
24 ties to correct administrative errors and omis-
25 sions with respect to allocations and record

1 keeping within a reasonable period after dis-
2 covery, taking into account the availability of
3 regulations and other administrative guidance
4 from the Secretary.”.

5 (b) CREDIT TREATED AS BUSINESS CREDIT.—Sec-
6 tion 38(b) of the Internal Revenue Code of 1986 (relating
7 to current year business credit) is amended by striking
8 “plus” at the end of paragraph (14), by striking the period
9 at the end of paragraph (15) and inserting “, plus”, and
10 by adding at the end the following new paragraph:

11 “(16) the qualifying clean coal technology pro-
12 duction credit determined under section 45G(a).”.

13 (c) TRANSITIONAL RULE.—Section 39(d) of the In-
14 ternal Revenue Code of 1986 (relating to transitional
15 rules) is amended by adding at the end the following new
16 paragraph:

17 “(11) NO CARRYBACK OF SECTION 45G CREDIT
18 BEFORE EFFECTIVE DATE.—No portion of the un-
19 used business credit for any taxable year which is
20 attributable to the qualifying clean coal technology
21 production credit determined under section 45G may
22 be carried back to a taxable year ending on or before
23 the date of the enactment of section 45G.”.

24 (d) CLERICAL AMENDMENT.—The table of sections
25 for subpart D of part IV of subchapter A of chapter 1

1 of the Internal Revenue Code of 1986 is amended by add-
 2 ing at the end the following new item:

“Sec. 45G. Credit for production from a qualifying clean coal technology unit.”.

3 (e) EFFECTIVE DATE.—The amendments made by
 4 this section shall apply to production after the date of the
 5 enactment of this Act, in taxable years ending after such
 6 date.

7 **Subtitle B—Incentives for Early**
 8 **Commercial Applications of Ad-**
 9 **vanced Clean Coal Technologies**

10 **SEC. 311. CREDIT FOR INVESTMENT IN QUALIFYING AD-**
 11 **VANCED CLEAN COAL TECHNOLOGY.**

12 (a) ALLOWANCE OF QUALIFYING ADVANCED CLEAN
 13 COAL TECHNOLOGY UNIT CREDIT.—Section 46 of the In-
 14 ternal Revenue Code of 1986 (relating to amount of cred-
 15 it) is amended by striking “and” at the end of paragraph
 16 (2), by striking the period at the end of paragraph (3)
 17 and inserting “, and”, and by adding at the end the fol-
 18 lowing new paragraph:

19 “(4) the qualifying advanced clean coal tech-
 20 nology unit credit.”.

21 (b) AMOUNT OF QUALIFYING ADVANCED CLEAN
 22 COAL TECHNOLOGY UNIT CREDIT.—Subpart E of part
 23 IV of subchapter A of chapter 1 of the Internal Revenue
 24 Code of 1986 (relating to rules for computing investment

1 credit) is amended by inserting after section 48 the fol-
2 lowing new section:

3 **“SEC. 48A. QUALIFYING ADVANCED CLEAN COAL TECH-**
4 **NOLOGY UNIT CREDIT.**

5 “(a) IN GENERAL.—For purposes of section 46, the
6 qualifying advanced clean coal technology unit credit for
7 any taxable year is an amount equal to 10 percent of the
8 applicable percentage of the qualified investment in a
9 qualifying advanced clean coal technology unit for such
10 taxable year.

11 “(b) QUALIFYING ADVANCED CLEAN COAL TECH-
12 NOLOGY UNIT.—

13 “(1) IN GENERAL.—For purposes of subsection
14 (a), the term ‘qualifying advanced clean coal tech-
15 nology unit’ means an advanced clean coal tech-
16 nology unit of the taxpayer—

17 “(A)(i)(I) in the case of a unit first placed
18 in service after the date of the enactment of
19 this section, the original use of which com-
20 mences with the taxpayer, or

21 “(II) in the case of the retrofitting or
22 repowering of a unit first placed in service be-
23 fore such date of enactment, the retrofitting or
24 repowering of which is completed by the tax-
25 payer after such date, or

1 “(ii) which is acquired through purchase
2 (as defined by section 179(d)(2)),

3 “(B) which is depreciable under section
4 167,

5 “(C) which has a useful life of not less
6 than 4 years,

7 “(D) which is located in the United States,

8 “(E) which is not receiving nor is sched-
9 uled to receive funding under the Clean Coal
10 Technology Program, the Power Plant Improve-
11 ment Initiative, or the Clean Coal Power Initia-
12 tive administered by the Secretary of Energy,

13 “(F) which is not a qualifying clean coal
14 technology unit, and

15 “(G) which receives an allocation of a por-
16 tion of the national megawatt capacity limita-
17 tion under subsection (f).

18 “(2) SPECIAL RULE FOR SALE-LEASEBACKS.—
19 For purposes of subparagraph (A) of paragraph (1),
20 in the case of a unit which—

21 “(A) is originally placed in service by a
22 person, and

23 “(B) is sold and leased back by such per-
24 son, or is leased to such person, within 3
25 months after the date such unit was originally

1 placed in service, for a period of not less than
2 12 years,
3 such unit shall be treated as originally placed in
4 service not earlier than the date on which such unit
5 is used under the leaseback (or lease) referred to in
6 subparagraph (B). The preceding sentence shall not
7 apply to any property if the lessee and lessor of such
8 property make an election under this sentence. Such
9 an election, once made, may be revoked only with
10 the consent of the Secretary.

11 “(3) NONCOMPLIANCE WITH POLLUTION
12 LAWS.—For purposes of this subsection, a unit
13 which is not in compliance with the applicable State
14 and Federal pollution prevention, control, and per-
15 mit requirements for any period of time shall not be
16 considered to be a qualifying advanced clean coal
17 technology unit during such period.

18 “(c) APPLICABLE PERCENTAGE.—For purposes of
19 this section, with respect to any qualifying advanced clean
20 coal technology unit, the applicable percentage is the per-
21 centage equal to the ratio which the portion of the national
22 megawatt capacity limitation allocated to the taxpayer
23 with respect to such unit under subsection (f) bears to
24 the total megawatt capacity of such unit.

1 “(d) ADVANCED CLEAN COAL TECHNOLOGY UNIT.—

2 For purposes of this section—

3 “(1) IN GENERAL.—The term ‘advanced clean
4 coal technology unit’ means a new, retrofit, or
5 repowering unit of the taxpayer which—

6 “(A) is—

7 “(i) an eligible advanced pulverized
8 coal or atmospheric fluidized bed combus-
9 tion technology unit,

10 “(ii) an eligible pressurized fluidized
11 bed combustion technology unit,

12 “(iii) an eligible integrated gasifi-
13 cation combined cycle technology unit, or

14 “(iv) an eligible other technology unit,
15 and

16 “(B) meets the carbon emission rate re-
17 quirements of paragraph (6).

18 “(2) ELIGIBLE ADVANCED PULVERIZED COAL
19 OR ATMOSPHERIC FLUIDIZED BED COMBUSTION
20 TECHNOLOGY UNIT.—The term ‘eligible advanced
21 pulverized coal or atmospheric fluidized bed combus-
22 tion technology unit’ means a clean coal technology
23 unit using advanced pulverized coal or atmospheric
24 fluidized bed combustion technology which—

1 “(A) is placed in service after the date of
2 the enactment of this section and before Janu-
3 ary 1, 2015, and

4 “(B) has a design net heat rate of not
5 more than 8,500 (8,900 in the case of units
6 placed in service before 2011).

7 “(3) ELIGIBLE PRESSURIZED FLUIDIZED BED
8 COMBUSTION TECHNOLOGY UNIT.—The term ‘eligi-
9 ble pressurized fluidized bed combustion technology
10 unit’ means a clean coal technology unit using pres-
11 surized fluidized bed combustion technology which—

12 “(A) is placed in service after the date of
13 the enactment of this section and before Janu-
14 ary 1, 2019, and

15 “(B) has a design net heat rate of not
16 more than 7,720 (8,900 in the case of units
17 placed in service before 2011, and 8,500 in the
18 case of units placed in service after 2010 and
19 before 2015).

20 “(4) ELIGIBLE INTEGRATED GASIFICATION
21 COMBINED CYCLE TECHNOLOGY UNIT.—The term
22 ‘eligible integrated gasification combined cycle tech-
23 nology unit’ means a clean coal technology unit
24 using integrated gasification combined cycle tech-

1 nology, with or without fuel or chemical co-produc-
2 tion, which—

3 “(A) is placed in service after the date of
4 the enactment of this section and before Janu-
5 ary 1, 2019,

6 “(B) has a design net heat rate of not
7 more than 7,720 (8,900 in the case of units
8 placed in service before 2011, and 8,500 in the
9 case of units placed in service after 2010 and
10 before 2015), and

11 “(C) has a net thermal efficiency (HHV)
12 using coal with fuel or chemical co-production
13 of not less than 44.2 percent (38.4 percent in
14 the case of units placed in service before 2011,
15 and 40.2 percent in the case of units placed in
16 service after 2010 and before 2015).

17 “(5) ELIGIBLE OTHER TECHNOLOGY UNIT.—
18 The term ‘eligible other technology unit’ means a
19 clean coal technology unit using any other tech-
20 nology for the production of electricity which is
21 placed in service after the date of the enactment of
22 this section and before January 1, 2019.

23 “(6) CARBON EMISSION RATE REQUIRE-
24 MENTS.—

1 “(A) IN GENERAL.—Except as provided in
2 subparagraph (B), a unit meets the require-
3 ments of this paragraph if—

4 “(i) in the case of a unit using design
5 coal with a heat content of not more than
6 9,000 Btu per pound, the carbon emission
7 rate is less than 0.60 pound of carbon per
8 kilowatt hour, and

9 “(ii) in the case of a unit using design
10 coal with a heat content of more than
11 9,000 Btu per pound, the carbon emission
12 rate is less than 0.54 pound of carbon per
13 kilowatt hour.

14 “(B) ELIGIBLE OTHER TECHNOLOGY
15 UNIT.—In the case of an eligible other tech-
16 nology unit, subparagraph (A) shall be applied
17 by substituting ‘0.51’ and ‘0.459’ for ‘0.60’ and
18 ‘0.54’, respectively.

19 “(e) GENERAL DEFINITIONS.—Any term used in this
20 section which is also used in section 45G shall have the
21 meaning given such term in section 45G.

22 “(f) NATIONAL LIMITATION ON THE AGGREGATE CA-
23 PACITY OF ADVANCED CLEAN COAL TECHNOLOGY
24 UNITS.—

1 “(1) IN GENERAL.—For purposes of subsection
2 (b)(1)(G), the national megawatt capacity limitation
3 is—

4 “(A) for qualifying advanced clean coal
5 technology units using advanced pulverized coal
6 or atmospheric fluidized bed combustion tech-
7 nology, not more than 1,000 megawatts (not
8 more than 500 megawatts in the case of units
9 placed in service before 2011),

10 “(B) for such units using pressurized flu-
11 idized bed combustion technology, not more
12 than 500 megawatts (not more than 250
13 megawatts in the case of units placed in service
14 before 2011),

15 “(C) for such units using integrated gasifi-
16 cation combined cycle technology, with or with-
17 out fuel or chemical co-production, not more
18 than 2,000 megawatts (not more than 750
19 megawatts, or not more than 1 project with a
20 design net heat rate greater than 8,900 Btu per
21 kilowatt hour, whichever is less, in the case of
22 units placed in service before 2011), and

23 “(D) for such units using other technology
24 for the production of electricity, not more than
25 500 megawatts (not more than 250 megawatts

1 in the case of units placed in service before
2 2011).

3 “(2) ALLOCATION OF LIMITATION.—The Sec-
4 retary shall allocate the national megawatt capacity
5 limitation for qualifying advanced clean coal tech-
6 nology units in such manner as the Secretary may
7 prescribe under the regulations under paragraph (3).

8 “(3) REGULATIONS.—Not later than 6 months
9 after the date of the enactment of this section, the
10 Secretary shall prescribe such regulations as may be
11 necessary or appropriate—

12 “(A) to carry out the purposes of this sub-
13 section and section 45H,

14 “(B) to limit the capacity of any qualifying
15 advanced clean coal technology unit to which
16 this section applies so that the combined mega-
17 watt capacity of all such units to which this sec-
18 tion applies does not exceed 4,000 megawatts,

19 “(C) to provide a certification process de-
20 scribed in section 45G(e)(3)(C),

21 “(D) to carry out the purposes described
22 in subparagraphs (D), (E), and (F) of section
23 45G(e)(3), and

24 “(E) to reallocate capacity which is not al-
25 located to any technology described in subpara-

1 graphs (A) through (D) of paragraph (1) be-
2 cause an insufficient number of qualifying units
3 request an allocation for such technology, to an-
4 other technology described in such subpara-
5 graphs in order to maximize the amount of en-
6 ergy efficient production encouraged with the
7 available tax credits.

8 “(4) SELECTION CRITERIA.—For purposes of
9 paragraph (3)(C), the selection criteria for allocating
10 the national megawatt capacity limitation to quali-
11 fying advanced clean coal technology units—

12 “(A) shall be established by the Secretary
13 of Energy as part of a competitive solicitation,

14 “(B) shall include primary criteria of min-
15 imum design net heat rate, maximum design
16 thermal efficiency, environmental performance,
17 and lowest cost to the Government,

18 “(C) shall include criteria for the selection
19 of 1 or more units which achieve a thermal effi-
20 ciency of lower than 8,900 Btu per kilowatt
21 hour in that instance where 2 or more projects
22 are otherwise eligible for the credit under this
23 section, and have applied to the Secretary for
24 selection during approximately the same time
25 period, and

1 “(D) shall include supplemental criteria as
2 determined appropriate by the Secretary of En-
3 ergy.

4 “(g) QUALIFIED INVESTMENT.—For purposes of
5 subsection (a), the term ‘qualified investment’ means, with
6 respect to any taxable year, the basis of a qualifying ad-
7 vanced clean coal technology unit placed in service by the
8 taxpayer during such taxable year (in the case of a unit
9 described in subsection (b)(1)(A)(i)(II), only that portion
10 of the basis of such unit which is properly attributable
11 to the retrofitting or repowering of such unit).

12 “(h) QUALIFIED PROGRESS EXPENDITURES.—

13 “(1) INCREASE IN QUALIFIED INVESTMENT.—
14 In the case of a taxpayer who has made an election
15 under paragraph (5), the amount of the qualified in-
16 vestment of such taxpayer for the taxable year (de-
17 termined under subsection (g) without regard to this
18 subsection) shall be increased by an amount equal to
19 the aggregate of each qualified progress expenditure
20 for the taxable year with respect to progress expend-
21 iture property.

22 “(2) PROGRESS EXPENDITURE PROPERTY DE-
23 FINED.—For purposes of this subsection, the term
24 ‘progress expenditure property’ means any property
25 being constructed by or for the taxpayer and which

1 it is reasonable to believe will qualify as a qualifying
2 advanced clean coal technology unit which is being
3 constructed by or for the taxpayer when it is placed
4 in service.

5 “(3) QUALIFIED PROGRESS EXPENDITURES DE-
6 FINED.—For purposes of this subsection—

7 “(A) SELF-CONSTRUCTED PROPERTY.—In
8 the case of any self-constructed property, the
9 term ‘qualified progress expenditures’ means
10 the amount which, for purposes of this subpart,
11 is properly chargeable (during such taxable
12 year) to capital account with respect to such
13 property.

14 “(B) NONSELF-CONSTRUCTED PROP-
15 erty.—In the case of nonself-constructed prop-
16 erty, the term ‘qualified progress expenditures’
17 means the amount paid during the taxable year
18 to another person for the construction of such
19 property.

20 “(4) OTHER DEFINITIONS.—For purposes of
21 this subsection—

22 “(A) SELF-CONSTRUCTED PROPERTY.—
23 The term ‘self-constructed property’ means
24 property for which it is reasonable to believe

1 that more than half of the construction expendi-
2 tures will be made directly by the taxpayer.

3 “(B) NONSELF-CONSTRUCTED PROP-
4 PERTY.—The term ‘nonself-constructed property’
5 means property which is not self-constructed
6 property.

7 “(C) CONSTRUCTION, ETC.—The term
8 ‘construction’ includes reconstruction and erec-
9 tion, and the term ‘constructed’ includes recon-
10 structed and erected.

11 “(D) ONLY CONSTRUCTION OF QUALI-
12 FYING ADVANCED CLEAN COAL TECHNOLOGY
13 UNIT TO BE TAKEN INTO ACCOUNT.—Construc-
14 tion shall be taken into account only if, for pur-
15 poses of this subpart, expenditures therefor are
16 properly chargeable to capital account with re-
17 spect to the property.

18 “(5) ELECTION.—An election under this sub-
19 section may be made at such time and in such man-
20 ner as the Secretary may by regulations prescribe.
21 Such an election shall apply to the taxable year for
22 which made and to all subsequent taxable years.
23 Such an election, once made, may not be revoked ex-
24 cept with the consent of the Secretary.

1 “(i) COORDINATION WITH OTHER CREDITS.—This
2 section shall not apply to any property with respect to
3 which the rehabilitation credit under section 47 or the en-
4 ergy credit under section 48 is allowed unless the taxpayer
5 elects to waive the application of such credit to such prop-
6 erty.”.

7 (c) RECAPTURE.—Section 50(a) of the Internal Rev-
8 enue Code of 1986 (relating to other special rules) is
9 amended by adding at the end the following new para-
10 graph:

11 “(6) SPECIAL RULES RELATING TO QUALIFYING
12 ADVANCED CLEAN COAL TECHNOLOGY UNIT.—For
13 purposes of applying this subsection in the case of
14 any credit allowable by reason of section 48A, the
15 following shall apply:

16 “(A) GENERAL RULE.—In lieu of the
17 amount of the increase in tax under paragraph
18 (1), the increase in tax shall be an amount
19 equal to the investment tax credit allowed under
20 section 38 for all prior taxable years with re-
21 spect to a qualifying advanced clean coal tech-
22 nology unit (as defined by section 48A(b)(1))
23 multiplied by a fraction whose numerator is the
24 number of years remaining to fully depreciate
25 under this title the qualifying advanced clean

1 coal technology unit disposed of, and whose de-
2 nominator is the total number of years over
3 which such unit would otherwise have been sub-
4 ject to depreciation. For purposes of the pre-
5 ceding sentence, the year of disposition of the
6 qualifying advanced clean coal technology unit
7 shall be treated as a year of remaining depre-
8 ciation.

9 “(B) PROPERTY CEASES TO QUALIFY FOR
10 PROGRESS EXPENDITURES.—Rules similar to
11 the rules of paragraph (2) shall apply in the
12 case of qualified progress expenditures for a
13 qualifying advanced clean coal technology unit
14 under section 48A, except that the amount of
15 the increase in tax under subparagraph (A) of
16 this paragraph shall be substituted for the
17 amount described in such paragraph (2).

18 “(C) APPLICATION OF PARAGRAPH.—This
19 paragraph shall be applied separately with re-
20 spect to the credit allowed under section 38 re-
21 garding a qualifying advanced clean coal tech-
22 nology unit.”.

23 (d) TRANSITIONAL RULE.—Section 39(d) of the In-
24 ternal Revenue Code of 1986 (relating to transitional

1 rules), as amended by this Act, is amended by adding at
2 the end the following new paragraph:

3 “(12) NO CARRYBACK OF SECTION 48A CREDIT
4 BEFORE EFFECTIVE DATE.—No portion of the un-
5 used business credit for any taxable year which is
6 attributable to the qualifying advanced clean coal
7 technology unit credit determined under section 48A
8 may be carried back to a taxable year ending on or
9 before the date of the enactment of section 48A.”.

10 (e) TECHNICAL AMENDMENTS.—

11 (1) Section 49(a)(1)(C) of the Internal Revenue
12 Code of 1986 is amended by striking “and” at the
13 end of clause (ii), by striking the period at the end
14 of clause (iii) and inserting “, and”, and by adding
15 at the end the following new clause:

16 “(iv) the portion of the basis of any
17 qualifying advanced clean coal technology
18 unit attributable to any qualified invest-
19 ment (as defined by section 48A(g)).”.

20 (2) Section 50(a)(4) of such Code is amended
21 by striking “and (2)” and inserting “(2), and (6)”.

22 (3) Section 50(c) of such Code is amended by
23 adding at the end the following new paragraph:

1 “(6) NONAPPLICATION.—Paragraphs (1) and
2 (2) shall not apply to any qualifying advanced clean
3 coal technology unit credit under section 48A.”.

4 (4) The table of sections for subpart E of part
5 IV of subchapter A of chapter 1 of such Code is
6 amended by inserting after the item relating to sec-
7 tion 48 the following new item:

“Sec. 48A. Qualifying advanced clean coal technology unit credit.”.

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

14 **SEC. 312. CREDIT FOR PRODUCTION FROM A QUALIFYING**
15 **ADVANCED CLEAN COAL TECHNOLOGY UNIT.**

16 (a) IN GENERAL.—Subpart D of part IV of sub-
17 chapter A of chapter 1 of the Internal Revenue Code of
18 1986 (relating to business related credits), as amended by
19 this Act, is amended by adding at the end the following
20 new section:

21 **“SEC. 45H. CREDIT FOR PRODUCTION FROM A QUALIFYING**
22 **ADVANCED CLEAN COAL TECHNOLOGY UNIT.**

23 “(a) GENERAL RULE.—For purposes of section 38,
24 the qualifying advanced clean coal technology production
25 credit of any taxpayer for any taxable year is equal to—

1 “(1) the applicable amount of advanced clean
2 coal technology production credit, multiplied by

3 “(2) the applicable percentage (as determined
4 under section 48A(c)) of the sum of—

5 “(A) the kilowatt hours of electricity, plus

6 “(B) each 3,413 Btu of fuels or chemicals,
7 produced by the taxpayer during such taxable year
8 at a qualifying advanced clean coal technology unit
9 during the 10-year period beginning on the date the
10 unit was originally placed in service (or returned to
11 service after becoming a qualifying advanced clean
12 coal technology unit).

13 “(b) APPLICABLE AMOUNT.—For purposes of this
14 section, the applicable amount of advanced clean coal tech-
15 nology production credit with respect to production from
16 a qualifying advanced clean coal technology unit shall be
17 determined as follows:

18 “(1) Where the qualifying advanced clean coal
19 technology unit is producing electricity only:

20 “(A) In the case of a unit originally placed
21 in service before 2011, if—

“The design net heat rate is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 8,500	\$.0060	\$.0038
More than 8,500 but not more than 8,750	\$.0025	\$.0010
More than 8,750 but less than 8,900	\$.0010	\$.0010.

1 “(B) In the case of a unit originally placed
 2 in service after 2010 and before 2015, if—

“The design net heat rate is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,770	\$.0105	\$.0090
More than 7,770 but not more than 8,125	\$.0085	\$.0068
More than 8,125 but less than 8,350	\$.0075	\$.0055.

3 “(C) In the case of a unit originally placed
 4 in service after 2014 and before 2019, if—

“The design net heat rate is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,380	\$.0140	\$.0115
More than 7,380 but not more than 7,720	\$.0120	\$.0090.

5 “(2) Where the qualifying advanced clean coal
 6 technology unit is producing fuel or chemicals:

7 “(A) In the case of a unit originally placed
 8 in service before 2011, if—

“The unit design net thermal efficiency (HHV) is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 40.6 percent	\$.0060	\$.0038
Less than 40.6 but not less than 40 percent	\$.0025	\$.0010
Less than 40 but not less than 38.4 percent	\$.0010	\$.0010.

9 “(B) In the case of a unit originally placed
 10 in service after 2010 and before 2015, if—

“The unit design net thermal efficiency (HHV) is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 43.6 percent	\$.0105	\$.0090
Less than 43.6 but not less than 42 percent	\$.0085	\$.0068
Less than 42 but not less than 40.2 percent	\$.0075	\$.0055.

1 “(C) In the case of a unit originally placed
 2 in service after 2014 and before 2019, if—

“The unit design net thermal efficiency (HHV) is:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 44.2 percent	\$.0140	\$.0115
Less than 44.2 but not less than 43.9 percent	\$.0120	\$.0090.

3 “(c) SPECIAL RULE.—A qualifying clean coal tech-
 4 nology facility originally placed in service before 2009
 5 which has a design net heat rate which meets a lower heat
 6 rate test in subparagraphs (A), (B), and (C) of subsection
 7 (b)(1) and subparagraphs (A), (B), and (C) of subsection
 8 (b)(2) or a qualifying clean coal technology facility origi-
 9 nally placed in service before 2013 which has a design net
 10 heat rate which meets a lower heat rate test in paragraph
 11 (1)(C) or (2)(C) of subsection (b) shall receive the highest
 12 applicable amount with respect to a production credit for
 13 which such facility qualifies.

14 “(d) INFLATION ADJUSTMENT.—For calendar years
 15 after 2003, each amount in paragraphs (1) and (2) of sub-
 16 section (b) shall be adjusted by multiplying such amount
 17 by the inflation adjustment factor for the calendar year

1 in which the amount is applied. If any amount as in-
2 creased under the preceding sentence is not a multiple of
3 0.01 cent, such amount shall be rounded to the nearest
4 multiple of 0.01 cent.

5 “(e) DEFINITIONS AND SPECIAL RULES.—For pur-
6 poses of this section—

7 “(1) IN GENERAL.—Any term used in this sec-
8 tion which is also used in section 45G or 48A shall
9 have the meaning given such term in such section.

10 “(2) APPLICABLE RULES.—The rules of para-
11 graphs (3), (4), and (5) of section 45(d) shall
12 apply.”.

13 (b) CREDIT TREATED AS BUSINESS CREDIT.—Sec-
14 tion 38(b) of the Internal Revenue Code of 1986 (relating
15 to current year business credit), as amended by this Act,
16 is amended by striking “plus” at the end of paragraph
17 (15), by striking the period at the end of paragraph (16)
18 and inserting “, plus”, and by adding at the end the fol-
19 lowing new paragraph:

20 “(17) the qualifying advanced clean coal tech-
21 nology production credit determined under section
22 45H(a).”.

23 (c) TRANSITIONAL RULE.—Section 39(d) of the In-
24 ternal Revenue Code of 1986 (relating to transitional

1 rules), as amended by this Act, is amended by adding at
2 the end the following new paragraph:

3 “(13) NO CARRYBACK OF SECTION 45H CREDIT
4 BEFORE EFFECTIVE DATE.—No portion of the un-
5 used business credit for any taxable year which is
6 attributable to the qualifying advanced clean coal
7 technology production credit determined under sec-
8 tion 45H may be carried back to a taxable year end-
9 ing on or before the date of the enactment of section
10 45H.”.

11 (d) DENIAL OF DOUBLE BENEFIT.—Section 29(d) of
12 the Internal Revenue Code of 1986 (relating to other defi-
13 nitions and special rules) is amended by adding at the end
14 the following new paragraph:

15 “(9) DENIAL OF DOUBLE BENEFIT.—This sec-
16 tion shall not apply with respect to any qualified fuel
17 the production of which may be taken into account
18 for purposes of determining the credit under section
19 45H.”.

20 (e) CLERICAL AMENDMENT.—The table of sections
21 for subpart D of part IV of subchapter A of chapter 1
22 of the Internal Revenue Code of 1986, as amended by this
23 Act, is amended by adding at the end the following new
24 item:

“Sec. 45H. Credit for production from a qualifying advanced clean coal tech-
nology unit.”.

1 (f) EFFECTIVE DATE.—The amendments made by
 2 this section shall apply to production after the date of the
 3 enactment of this Act, in taxable years ending after such
 4 date.

5 **Subtitle C—Treatment of Persons**
 6 **Not Able To Use Entire Credit**

7 **SEC. 321. TREATMENT OF PERSONS NOT ABLE TO USE EN-**
 8 **TIRE CREDIT.**

9 (a) IN GENERAL.—Section 45G of the Internal Rev-
 10 enue Code of 1986, as added by this Act, is amended by
 11 adding at the end the following new subsection:

12 “(f) TREATMENT OF PERSON NOT ABLE TO USE
 13 ENTIRE CREDIT.—

14 “(1) ALLOWANCE OF CREDITS.—

15 “(A) IN GENERAL.—Any credit allowable
 16 under this section, section 45H, or section 48A
 17 with respect to a facility owned by a person de-
 18 scribed in subparagraph (B) may be transferred
 19 or used as provided in this subsection, and the
 20 determination as to whether the credit is allow-
 21 able shall be made without regard to the tax-
 22 exempt status of the person.

23 “(B) PERSONS DESCRIBED.—A person is
 24 described in this subparagraph if the person
 25 is—

1 “(i) an organization described in sec-
2 tion 501(c)(12)(C) and exempt from tax
3 under section 501(a),

4 “(ii) an organization described in sec-
5 tion 1381(a)(2)(C),

6 “(iii) a public utility (as defined in
7 section 136(c)(2)(B)),

8 “(iv) any State or political subdivision
9 thereof, the District of Columbia, or any
10 agency or instrumentality of any of the
11 foregoing,

12 “(v) any Indian tribal government
13 (within the meaning of section 7871) or
14 any agency or instrumentality thereof, or

15 “(vi) the Tennessee Valley Authority.

16 “(2) TRANSFER OF CREDIT.—

17 “(A) IN GENERAL.—A person described in
18 clause (i), (ii), (iii), (iv), or (v) of paragraph
19 (1)(B) may transfer any credit to which para-
20 graph (1)(A) applies through an assignment to
21 any other person not described in paragraph
22 (1)(B). Such transfer may be revoked only with
23 the consent of the Secretary.

24 “(B) REGULATIONS.—The Secretary shall
25 prescribe such regulations as necessary to in-

1 sure that any credit described in subparagraph
2 (A) is claimed once and not reassigned by such
3 other person.

4 “(C) TRANSFER PROCEEDS TREATED AS
5 ARISING FROM ESSENTIAL GOVERNMENT FUNC-
6 TION.—Any proceeds derived by a person de-
7 scribed in clause (iii), (iv), or (v) of paragraph
8 (1)(B) from the transfer of any credit under
9 subparagraph (A) shall be treated as arising
10 from the exercise of an essential government
11 function.

12 “(3) USE BY TVA.—

13 “(A) IN GENERAL.—Notwithstanding any
14 other provision of law, in the case of a person
15 described in paragraph (1)(B)(vi), any credit to
16 which paragraph (1)(A) applies may be applied
17 as a credit against the payments required to be
18 made in any fiscal year under section 15d(e) of
19 the Tennessee Valley Authority Act of 1933 (16
20 U.S.C. 831n-4(e)) as an annual return on the
21 appropriations investment and an annual repay-
22 ment sum.

23 “(B) TREATMENT OF CREDITS.—The ag-
24 gregate amount of credits described in para-
25 graph (1)(A) with respect to such person shall

1 be treated in the same manner and to the same
2 extent as if such credits were a payment in cash
3 and shall be applied first against the annual re-
4 turn on the appropriations investment.

5 “(C) CREDIT CARRYOVER.—With respect
6 to any fiscal year, if the aggregate amount of
7 credits described paragraph (1)(A) with respect
8 to such person exceeds the aggregate amount of
9 payment obligations described in subparagraph
10 (A), the excess amount shall remain available
11 for application as credits against the amounts
12 of such payment obligations in succeeding fiscal
13 years in the same manner as described in this
14 paragraph.

15 “(4) CREDIT NOT INCOME.—Any transfer
16 under paragraph (2) or use under paragraph (3) of
17 any credit to which paragraph (1)(A) applies shall
18 not be treated as income for purposes of section
19 501(c)(12).

20 “(5) TREATMENT OF UNRELATED PERSONS.—
21 For purposes of this subsection, sales among and be-
22 tween persons described in clauses (i), (ii), (iii), (iv),
23 and (v) of paragraph (1)(A) shall be treated as sales
24 between unrelated parties.”.

1 (b) EFFECTIVE DATE.—The amendment made by
2 this section shall apply to production after the date of the
3 enactment of this Act, in taxable years ending after such
4 date.

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