

106TH CONGRESS  
2D SESSION

# S. 3253

To authorize Department of Energy programs to develop and implement an accelerated research and development program for advanced clean coal technologies for use in coal-based electricity generating facilities and to amend the Internal Revenue Code of 1986 to provide financial incentives to encourage the retrofitting, repowering, or replacement of coal-based electricity generating facilities to protect the environment and improve efficiency and encourage the early commercial application of advanced clean coal technologies, so as to allow coal to help meet the growing need of the United States for the generation of reliable and affordable electricity.

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## IN THE SENATE OF THE UNITED STATES

OCTOBER 27 (legislative day, SEPTEMBER 22), 2000

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

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## A BILL

To authorize Department of Energy programs to develop and implement an accelerated research and development program for advanced clean coal technologies for use in coal-based electricity generating facilities and to amend the Internal Revenue Code of 1986 to provide financial incentives to encourage the retrofitting, repowering, or replacement of coal-based electricity generating facilities to protect the environment and improve efficiency and encourage the early commercial application of advanced clean coal technologies, so as to allow coal

to help meet the growing need of the United States for the generation of reliable and affordable electricity.

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 “National Electricity and Environmental Technology  
6 Act”.

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 and purposes.

**TITLE I—ACCELERATED TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM FOR ADVANCED CLEAN COAL TECHNOLOGY FOR COAL-BASED ELECTRICITY GENERATING FACILITIES**

Sec. 101. Purpose.

Sec. 102. Definitions.

**Subtitle A—National Coal-Based Technology Development and Applications Program**

Sec. 111. Cost and performance goals.

Sec. 112. Study.

Sec. 113. Technology research and development program.

Sec. 114. Authorization of appropriations.

**Subtitle B—Plant Technology Applications**

Sec. 121. Plant technology applications.

Sec. 122. Financial assistance.

Sec. 123. Funding.

**TITLE II—CREDIT FOR EMISSION REDUCTIONS AND EFFICIENCY IMPROVEMENTS IN EXISTING COAL-BASED ELECTRICITY GENERATION FACILITIES**

Sec. 201. Credit for investment in qualifying clean coal technology.

Sec. 202. Credit for production from a qualifying clean coal technology unit.

**TITLE III—INCENTIVES FOR EARLY COMMERCIAL APPLICATIONS OF ADVANCED CLEAN COAL TECHNOLOGIES**

Sec. 301. Credit for investment in qualifying advanced clean coal technology.

Sec. 302. Credit for production from qualifying advanced clean coal technology.

Sec. 303. Risk pool for qualifying advanced clean coal technology.

TITLE IV—TREATMENT OF CERTAIN TAX-EXEMPT ENTITIES

Sec. 401. Refundable credits for electric cooperatives or publicly owned electric utilities.

Sec. 402. Offset of certain annual payment obligations in lieu of qualifying clean coal technology credits.

1 **SEC. 2. FINDINGS AND PURPOSES.**

2 (a) FINDINGS.—Congress finds that—

3 (1) reliable, affordable, increasingly clean elec-  
4 tricity will continue to power the growing United  
5 States economy;

6 (2) an increasing use of electrotechnologies, the  
7 desire for continuous environmental improvement, a  
8 more competitive electricity market, and concerns  
9 about rising energy prices add importance to the  
10 need for reliable, affordable, increasingly clean elec-  
11 tricity;

12 (3) coal, which, as of the date of enactment of  
13 this Act, accounts for more than ½ of all electricity  
14 generated in the United States, is the most abun-  
15 dant fossil energy resource of the United States;

16 (4) coal comprises more than 85 percent of all  
17 fossil resources in the United States and exists in  
18 quantities sufficient to supply the United States for  
19 250 years at current usage rates;

20 (5) investments in electricity generating facility  
21 emissions control technology over the past 30 years  
22 have reduced the aggregate emissions of pollutants

1 from coal-based generating facilities by 21 percent,  
2 even as coal use for electricity generation has nearly  
3 tripled;

4 (6) continuous improvement in efficiency and  
5 environmental performance from electricity gener-  
6 ating facilities would allow continued use of coal and  
7 preserve less-abundant energy resources for other  
8 energy uses;

9 (7) new technologies for converting coal into  
10 electricity can effectively eliminate health-threat-  
11 ening emissions and improve efficiency by as much  
12 as 50 percent, but initial commercial deployment of  
13 new coal generation technologies entails significant  
14 risk that generators may be unable to accept in a  
15 newly competitive electricity market; and

16 (8) continued environmental improvement in  
17 coal-based generation through continued research,  
18 development, and demonstration toward an ultimate  
19 goal of near-zero emissions is important and desir-  
20 able.

21 (b) PURPOSES.—The purposes of this Act are—

22 (1) to authorize Department of Energy pro-  
23 grams to develop and implement an accelerated re-  
24 search and development program for advanced clean

1 coal technologies for use in coal-based electricity  
2 generating facilities; and

3 (2) to amend the Internal Revenue Code of  
4 1986—

5 (A) to provide financial incentives to en-  
6 courage the retrofitting, repowering, or replace-  
7 ment of coal-based electricity generating facili-  
8 ties to protect the environment and improve ef-  
9 ficiency;

10 (B) to encourage the early commercial ap-  
11 plication of advanced clean coal technologies;  
12 and

13 (C) to develop technologies that provide  
14 flexibility in obtaining environmental objectives  
15 at the lowest possible cost in order to provide  
16 electricity to the consumer at the lowest pos-  
17 sible cost;

18 so as to allow coal to help meet the growing need of the  
19 United States for the generation of reliable and affordable  
20 electricity.

1 **TITLE I—ACCELERATED TECH-**  
2 **NOLOGY RESEARCH AND DE-**  
3 **VELOPMENT PROGRAM FOR**  
4 **ADVANCED CLEAN COAL**  
5 **TECHNOLOGY FOR COAL-**  
6 **BASED ELECTRICITY GENER-**  
7 **ATING FACILITIES**

8 **SEC. 101. PURPOSE.**

9 The purpose of this title is to direct the Secretary—

10 (1) to establish a coal-based technology develop-  
11 ment program designed to achieve cost and perform-  
12 ance goals;

13 (2) to carry out a study to identify technologies  
14 that may be capable of achieving the cost and per-  
15 formance goals and for other purposes; and

16 (3) to implement a research, development, and  
17 demonstration program to develop and demonstrate  
18 in commercial-scale applications advanced clean coal  
19 technologies for coal-fired generating units con-  
20 structed before the date of enactment of this Act.

21 **SEC. 102. DEFINITIONS.**

22 In this title:

23 (1) **COST AND PERFORMANCE GOALS.**—The  
24 term “cost and performance goals” means the cost

1 and performance goals established under section  
2 111.

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

5 **Subtitle A—National Coal-Based**  
6 **Technology Development and**  
7 **Applications Program**

8 **SEC. 111. COST AND PERFORMANCE GOALS.**

9 (a) IN GENERAL.—The Secretary shall perform an  
10 assessment that identifies costs and associated perform-  
11 ance of technologies that would permit the continued cost-  
12 competitive use of coal for electricity generation, as chem-  
13 ical feedstocks, and as transportation fuel in 2007, 2015,  
14 and the years after 2020.

15 (b) CONSULTATION.—In establishing the cost and  
16 performance goals, the Secretary shall consult with rep-  
17 resentatives of—

18 (1) the United States coal industry;

19 (2) State coal development agencies;

20 (3) the electric utility industry;

21 (4) railroads and other transportation indus-  
22 tries;

23 (5) manufacturers of equipment using advanced  
24 coal technologies;

25 (6) organizations representing workers; and

1 (7) organizations formed to—

2 (A) further the goals of environmental pro-  
3 tection;

4 (B) promote the use of coal; or

5 (C) promote the development and use of  
6 advanced coal technologies.

7 (c) TIMING.—The Secretary shall—

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

11 (2) not later than 180 days after the date of  
12 enactment of this Act, after taking into consider-  
13 ation any public comments received, submit to Con-  
14 gress the final cost and performance goals.

15 **SEC. 112. STUDY.**

16 (a) IN GENERAL.—Not later than 1 year after the  
17 date of enactment of this Act, the Secretary, in coopera-  
18 tion with the Secretary of the Interior and the Adminis-  
19 trator of the Environmental Protection Agency, shall con-  
20 duct a study to—

21 (1) identify technologies capable of achieving  
22 the cost and performance goals;

23 (2) assess the costs that would be incurred by,  
24 and the period of time that would be required for,

1 the development and demonstration of the cost and  
2 performance goals; and

3 (3) develop recommendations for technology de-  
4 velopment programs, which the Department of En-  
5 ergy could carry out in cooperation with industry, to  
6 develop and demonstrate the cost and performance  
7 goals.

8 (b) COOPERATION.—In carrying out this section, the  
9 Secretary shall give due weight to the expert advice of rep-  
10 resentatives of the entities described in section 111(b).

11 **SEC. 113. TECHNOLOGY RESEARCH AND DEVELOPMENT**  
12 **PROGRAM.**

13 (a) IN GENERAL.—The Secretary shall carry out a  
14 program of research on and development, demonstration,  
15 and commercial application of coal-based technologies  
16 under—

17 (1) this Act;

18 (2) the Federal Nonnuclear Energy Research  
19 and Development Act of 1974 (42 U.S.C. 5901 et  
20 seq.);

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

23 (4) title XVI of the Energy Policy Act of 1992  
24 (42 U.S.C. 13381 et seq.).

1 (b) CONDITIONS.—The research, development, dem-  
2 onstration, and commercial application programs identi-  
3 fied in section 112(a) shall be designed to achieve the cost  
4 and performance goals.

5 (c) REPORT.—Not later than 18 months after the  
6 date of enactment of this Act, the Secretary shall submit  
7 to the President and Congress a report containing—

8 (1) a description of the programs that, as of the  
9 date of the report, are in effect or are to be carried  
10 out by the Department of Energy to support tech-  
11 nologies that are designed to achieve the cost and  
12 performance goals; and

13 (2) recommendations for additional authorities  
14 required to achieve the cost and performance goals.

15 **SEC. 114. AUTHORIZATION OF APPROPRIATIONS.**

16 (a) IN GENERAL.—There is authorized to be appro-  
17 priated to carry out this subtitle \$100,000,000 for each  
18 of fiscal years 2002 through 2012, to remain available  
19 until expended.

20 (b) CONDITIONS OF AUTHORIZATION.—The author-  
21 ization of appropriations under subsection (a)—

22 (1) shall be in addition to authorizations of ap-  
23 propriations in effect on the date of enactment of  
24 this Act; and

1           (2) shall not be a cap on Department of Energy  
2       fossil energy research and development and clean  
3       coal technology appropriations.

4           **Subtitle B—Plant Technology**  
5           **Applications**

6       **SEC. 121. PLANT TECHNOLOGY APPLICATIONS.**

7           (a) IN GENERAL.—The Secretary shall carry out a  
8       program of research, development, demonstration, and  
9       commercial application for the purpose of developing eco-  
10      nomically and environmentally acceptable advanced tech-  
11      nologies for use of coal at or within electricity generating  
12      facilities that use coal as the primary feedstock on the date  
13      of enactment of this Act.

14          (b) PLAN.—Not later than 120 days after the date  
15      of enactment of this Act, the Secretary shall submit to  
16      Congress a plan to carry out subsection (a) that includes  
17      a description of—

18           (1) the program elements and management  
19      structure to be used;

20           (2) the technical milestones to be achieved with  
21      respect to each of the advanced coal-based tech-  
22      nologies included in the plan; and

23           (3) the research, development, and demonstra-  
24      tion activities proposed to be conducted at new or  
25      existing coal-based electricity generating units hav-

1 ing at least 50 megawatts nameplate rating, includ-  
2 ing improvements designed to allow the units to  
3 provide—

4 (A) an overall efficiency improvement of  
5 not less than 3 percent as compared with the  
6 efficiency of the unit as operated on the date of  
7 enactment of this Act and before any retro-  
8 fitting, repowering, or replacement;

9 (B)(i) an annual daily average of not less  
10 than 98 percent removal of sulfur dioxide at a  
11 capital cost and operating cost that is at least  
12 25 percent below the costs of technology that is  
13 commercially available on the date of enactment  
14 of this Act for coals with a potential to emit  
15 sulfur dioxide of more than 520 nanograms/  
16 joule or 1.2 lb./mmbtu;

17 (ii) an annual daily average of not less  
18 than 85 percent removal of sulfur dioxide at a  
19 capital cost and operating cost at least 25 per-  
20 cent below the costs of that is commercially  
21 available on the date of enactment of this Act  
22 for coals with a potential to emit sulfur dioxide  
23 of not more than 520 nanograms/joule or 1.2  
24 lb./mmbtu;

1 (iii) an annual daily average of not less  
2 than 85 percent removal of nitrogen oxide with  
3 a nitrogen oxide emission level of not more than  
4 65 nanograms/joule or 0.15 lb./mmbtu without  
5 the use of ammonia, urea, or technologies not  
6 fully developed and commercially demonstrated  
7 on low-rank coals or coals with a high sodium  
8 content; or

9 (iv) an annual daily average of 75 percent  
10 removal of total (organic and inorganic) mer-  
11 cury (not including any removal achieved by the  
12 use of activated carbon or a system for selective  
13 catalytic reduction);

14 (C) means of recycling or reusing 100 per-  
15 cent of coal combustion wastes (not including—

16 (i) use of gypsum produce wallboard;

17 (ii) use of coal flyash and bottom ash  
18 in Portland cement and concrete applica-  
19 tions); or

20 (iii) other practices that are commer-  
21 cially available at the date of enactment of  
22 this Act; or

23 (D) means of reusing 100 percent of deep-  
24 ly beneficiated and dewatered coals and coal  
25 wastes, thereby increasing generating unit effi-

1           ciency and eliminating the need for any flue gas  
2           desulfurization.

3 **SEC. 122. FINANCIAL ASSISTANCE.**

4           (a) IN GENERAL.—Not later than 180 days after the  
5 date on which the Secretary submits to Congress the plan  
6 under section 121(b), the Secretary shall solicit proposals  
7 for projects at new or existing facilities designed to achieve  
8 the technical milestones specified in the plan under section  
9 121(b)(2).

10          (b) PROJECT CRITERIA.—A solicitation under sub-  
11 section (a) may include solicitation of a proposal for a  
12 project to demonstrate—

13           (1) the control of emissions of 1 or more pollut-  
14           ants; or

15           (2) the production of coal combustion byprod-  
16           ucts that are capable of obtaining economic values  
17           significantly greater than byproducts produced on  
18           the date of enactment of this Act.

19          (c) FINANCIAL ASSISTANCE.—The Secretary shall  
20 provide financial assistance to projects that—

21           (1) demonstrate overall cost reductions in the  
22           use of coal to generate useful forms of energy;

23           (2) improve the competitiveness of coal among  
24           various forms of energy so as to maintain a variety

1 of fuel choices in the United States to meet elec-  
2 tricity generation requirements;

3 (3) achieve, in a cost-effective manner, 1 or  
4 more of the criteria described in the solicitation; and

5 (4) demonstrate technologies that are applicable  
6 to 25 percent of the electricity generating facilities  
7 that use coal as the primary feedstock on the date  
8 of enactment of this Act.

9 (d) FEDERAL SHARE.—The Federal share cost of the  
10 project funded under this subtitle shall not exceed 50 per-  
11 cent.

12 (e) EXEMPTION FROM NEW SOURCE REVIEW PROVI-  
13 SIONS.—A project funded under this subtitle shall be ex-  
14 empt from the new source review provisions of the Clean  
15 Air Act (42 U.S.C. 7401 et seq.).

16 **SEC. 123. FUNDING.**

17 To carry out this subtitle, the Secretary may use any  
18 unobligated funds available to the Secretary and any funds  
19 obligated to any project selected under the clean coal tech-  
20 nology program that become unobligated.

1 **TITLE II—CREDIT FOR EMISSION**  
 2 **REDUCTIONS AND EFFI-**  
 3 **CIENCY IMPROVEMENTS IN**  
 4 **EXISTING COAL-BASED ELEC-**  
 5 **TRICITY GENERATION FACILI-**  
 6 **TIES**

7 **SEC. 201. CREDIT FOR INVESTMENT IN QUALIFYING CLEAN**  
 8 **COAL TECHNOLOGY.**

9 (a) ALLOWANCE OF QUALIFYING CLEAN COAL  
 10 TECHNOLOGY UNIT CREDIT.—Section 46 of the Internal  
 11 Revenue Code of 1986 (relating to amount of credit) is  
 12 amended by striking “and” at the end of paragraph (2),  
 13 by striking the period at the end of paragraph (3) and  
 14 inserting “, and”, and by adding at the end the following:

15 “(4) the qualifying clean coal technology unit  
 16 credit.”.

17 (b) AMOUNT OF QUALIFYING CLEAN COAL TECH-  
 18 NOLOGY UNIT CREDIT.—Subpart E of part IV of sub-  
 19 chapter A of chapter 1 of the Internal Revenue Code of  
 20 1986 (relating to rules for computing investment credit)  
 21 is amended by inserting after section 48 the following:

22 **“SEC. 48A. QUALIFYING CLEAN COAL TECHNOLOGY UNIT**  
 23 **CREDIT.**

24 “(a) IN GENERAL.—For purposes of section 46, the  
 25 qualifying clean coal technology unit credit for any taxable

1 year is an amount equal to 20 percent of the qualified  
2 investment in a qualifying system of continuous emission  
3 control for such taxable year.

4 “(b) QUALIFYING SYSTEM OF CONTINUOUS EMIS-  
5 SION CONTROL.—

6 “(1) IN GENERAL.—For purposes of subsection  
7 (a), the term ‘qualifying system of continuous emis-  
8 sion control’ means a system of the taxpayer—

9 “(A) which serves, is added to, or retrofits  
10 an existing coal-based electricity generation  
11 unit, the construction, installation, or retro-  
12 fitting of which is completed by the taxpayer  
13 (but only with respect to that portion of the  
14 basis which is properly attributable to such con-  
15 struction, installation, or retrofitting),

16 “(B) which removes or reduces 1 or more  
17 of the pollutants regulated under title I of the  
18 Clean Air Act (42 U.S.C. 7401 et seq.),

19 “(C) that is depreciable under section 167,

20 “(D) that has a useful life of not less than  
21 4 years, and

22 “(E) that is located in the United States.

23 “(2) SPECIAL RULE FOR SALE-LEASEBACKS.—

24 For purposes of subparagraph (A) of paragraph (1),  
25 in the case of a unit that—

1           “(A) is originally placed in service by a  
2           person, and

3           “(B) is sold and leased back by such per-  
4           son, or is leased to such person, within 3  
5           months after the date such unit was originally  
6           placed in service, for a period of not less than  
7           12 years,

8           such unit shall be treated as originally placed in  
9           service not earlier than the date on which such prop-  
10          erty is used under the leaseback (or lease) referred  
11          to in subparagraph (B). The preceding sentence  
12          shall not apply to any property if the lessee and les-  
13          sor of such property make an election under this  
14          sentence. Such an election, once made, may be re-  
15          voked only with the consent of the Secretary.

16          “(c) EXISTING COAL-BASED ELECTRICITY GENERA-  
17          TION UNIT.—For purposes of subsection (a), the term ‘ex-  
18          isting coal-based electricity generating unit’ means, with  
19          respect to any taxable year, a steam generator-turbine  
20          unit that uses coal to produce 75 percent or more of its  
21          output as electricity and was in operation before the effec-  
22          tive date of this section.

23          “(d) LIMIT ON QUALIFYING CLEAN COAL TECH-  
24          NOLOGY UNIT CREDIT.—For purposes of subsection (a),  
25          the credit shall be applicable to not more than the first

1 \$100,000,000 of qualifying investment in a qualifying sys-  
2 tem of continuous emission control at any 1 existing coal-  
3 based electricity generating unit.

4 “(e) QUALIFIED INVESTMENT.—For purposes of sub-  
5 section (a), the term ‘qualified investment’ means, with  
6 respect to any taxable year, the basis of a qualifying sys-  
7 tem of continuous emission control placed in service by  
8 the taxpayer during such taxable year.

9 “(f) QUALIFIED PROGRESS EXPENDITURES.—

10 “(1) INCREASE IN QUALIFIED INVESTMENT.—

11 In the case of a taxpayer who has made an election  
12 under paragraph (5), the amount of the qualified in-  
13 vestment of such taxpayer for the taxable year (de-  
14 termined under subsection (e) without regard to this  
15 subsection) shall be increased by an amount equal to  
16 the aggregate of each qualified progress expenditure  
17 for the taxable year with respect to progress expend-  
18 iture property.

19 “(2) PROGRESS EXPENDITURE PROPERTY DE-

20 FINED.—For purposes of this subsection, the term

21 ‘progress expenditure property’ means any property

22 being constructed by or for the taxpayer and which

23 it is reasonable to believe will qualify as a qualifying

24 system of continuous emission control which is being

1 constructed by or for the taxpayer when it is placed  
2 in service.

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

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

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

18 “(4) OTHER DEFINITIONS.—For purposes of  
19 this subsection—

20 “(A) SELF-CONSTRUCTED PROPERTY.—  
21 The term ‘self-constructed property’ means  
22 property for which it is reasonable to believe  
23 that more than half of the construction expendi-  
24 tures will be made directly by the taxpayer.

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

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

9           “(D) ONLY CONSTRUCTION OF QUALI-  
10          FYING SYSTEM OF CONTINUOUS EMISSION CON-  
11          TROL TO BE TAKEN INTO ACCOUNT.—Construc-  
12          tion shall be taken into account only if, for pur-  
13          poses of this subpart, expenditures therefore  
14          are properly chargeable to capital account with  
15          respect to the property.

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

23          “(g) COORDINATION WITH OTHER CREDITS.—This  
24          section shall not apply to any property with respect to  
25          which the rehabilitation credit under section 47 or the en-

1 ergy credit under section 48 is allowed unless the taxpayer  
2 elects to waive the application of such credit to such prop-  
3 erty.

4 “(h) TERMINATION.—This section shall not apply  
5 with respect to any qualified investment made more than  
6 10 years after the effective date of this section.”.

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:

10 “(6) SPECIAL RULES RELATING TO QUALIFYING  
11 SYSTEM OF CONTINUOUS EMISSION CONTROL.—For  
12 purposes of applying this subsection in the case of  
13 any credit allowable by reason of section 48A, the  
14 following shall apply:

15 “(A) GENERAL RULE.—In lieu of the  
16 amount of the increase in tax under paragraph  
17 (1), the increase in tax shall be an amount  
18 equal to the investment tax credit allowed under  
19 section 38 for all prior taxable years with re-  
20 spect to a qualifying system of continuous emis-  
21 sion control (as defined by section 48A(b)(1))  
22 multiplied by a fraction whose numerator is the  
23 number of years remaining to fully depreciate  
24 under this title the qualifying system of contin-  
25 uous emission control disposed of, and whose

1 denominator is the total number of years over  
2 which such unit would otherwise have been sub-  
3 ject to depreciation. For purposes of the pre-  
4 ceding sentence, the year of disposition of the  
5 qualifying system of continuous emission con-  
6 trol property shall be treated as a year of re-  
7 maining depreciation.

8 “(B) PROPERTY CEASES TO QUALIFY FOR  
9 PROGRESS EXPENDITURES.—Rules similar to  
10 the rules of paragraph (2) shall apply in the  
11 case of qualified progress expenditures for a  
12 qualifying system of continuous emission con-  
13 trol under section 48A, except that the amount  
14 of the increase in tax under subparagraph (A)  
15 of this paragraph shall be substituted in lieu of  
16 the amount described in such paragraph (2).

17 “(C) APPLICATION OF PARAGRAPH.—This  
18 paragraph shall be applied separately with re-  
19 spect to the credit allowed under section 38 re-  
20 garding a qualifying system of continuous emis-  
21 sion control.”.

22 (d) TRANSITIONAL RULE.—Section 39(d) of the In-  
23 ternal Revenue Code of 1986 (relating to transitional  
24 rules) is amended by adding at the end the following:

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

8 (e) TECHNICAL AMENDMENTS.—

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

14                   “(iv) the portion of the basis of any  
15                   qualifying system of continuous emission  
16                   control attributable to any qualified invest-  
17                   ment (as defined by section 48A(e)).”.

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

20           (3) Section 50(c) of such Code is amended by  
21 adding at the end the following:

22                   “(6) NONAPPLICATION.—Paragraphs (1) and  
23 (2) shall not apply to any qualifying clean coal tech-  
24 nology unit credit under section 48A.”.

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

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

5           (f) INSTALLATIONS NOT SUBJECT TO NEW SOURCE  
6           REVIEW, ETC.—

7           (1) EXEMPTION FROM NEW SOURCE REVIEW.—

8           The installation of a qualifying system of continuous  
9           emission control (as defined in section 48A(b)(1) of  
10          the Internal Revenue Code of 1986, as added by  
11          subsection (b), shall be exempt from the new source  
12          review provisions of the Clean Air Act (42 U.S.C.  
13          7401 et seq.).

14          (2) EXEMPTION FROM EMISSION CONTROL RE-  
15          QUIREMENTS.—The installation of a qualifying sys-  
16          tem of continuous emission control (as so defined)  
17          on an existing coal-based electricity generating unit,  
18          that meets or exceeds, for the applicable source cat-  
19          egory and pollutant being controlled by such quali-  
20          fied system, the standard of performance for new  
21          stationary sources, shall exempt the existing unit  
22          from any new or increased emission control require-  
23          ments for the pollutant being controlled by such  
24          qualified system under title I of the Clean Air Act  
25          (42 U.S.C. 7401 et seq.) for a period of 10 years

1 after the date such qualified system is originally  
2 placed in service.

3 (g) EFFECTIVE DATE.—The amendments made by  
4 this section shall apply to periods after December 31,  
5 2000, under rules similar to the rules of section 48(m)  
6 of the Internal Revenue Code of 1986 (as in effect on the  
7 day before the date of enactment of the Revenue Reconcili-  
8 ation Act of 1990).

9 **SEC. 202. CREDIT FOR PRODUCTION FROM A QUALIFYING**  
10 **CLEAN COAL TECHNOLOGY UNIT.**

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

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

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

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

24 “(2) the kilowatt hours of electricity produced  
25 by the taxpayer during such taxable year at a quali-

1       fying clean coal technology unit during the 10-year  
2       period beginning on the date the unit was returned  
3       to service after retrofit, repowering, or replacement.

4       “(b) APPLICABLE AMOUNT.—

5               “(1) IN GENERAL.—For purposes of this sec-  
6       tion, the applicable amount of clean coal technology  
7       production credit is equal to \$0.006.

8               “(2) INFLATION ADJUSTMENT FACTOR.—For  
9       calendar years after 2001, the applicable amount of  
10      clean coal technology production credit shall be ad-  
11      justed by multiplying such amount by the inflation  
12      adjustment factor for the calendar year in which the  
13      amount is applied. If any amount as increased under  
14      the preceding sentence is not a multiple of 0.01 cent,  
15      such amount shall be rounded to the nearest mul-  
16      tiple of 0.01 cent.

17      “(c) DEFINITIONS AND SPECIAL RULES.—For pur-  
18      poses of this section—

19               “(1) QUALIFYING CLEAN COAL TECHNOLOGY  
20      UNIT.—The term ‘qualifying clean coal technology  
21      unit’ means a unit of the taxpayer that—

22                       “(A) is an existing coal-based electricity  
23                       generating steam generator-turbine unit,

24                       “(B) has a nameplate capacity rating of  
25                       not more than 300,000 kilowatts, and

1           “(C) has been retrofitted, repowered, or re-  
2           placed with a clean coal technology within 10  
3           years of the effective date of this section.

4           “(2) CLEAN COAL TECHNOLOGY.—The term  
5           ‘clean coal technology’ means technology that—

6                   “(A) uses coal to produce 50 percent or  
7                   more of its thermal output as electricity, includ-  
8                   ing advanced pulverized coal or atmospheric flu-  
9                   idized bed combustion, pressurized fluidized bed  
10                  combustion, integrated gasification combined  
11                  cycle, or any other technology for the produc-  
12                  tion of electricity,

13                   “(B) has a design heat rate not less than  
14                   500 Btu/kWh below that of the existing unit be-  
15                   fore it is retrofit, repowered, or replaced with  
16                   the qualifying clean coal technology,

17                   “(C) has a maximum design heat rate of  
18                   not more than 9,000 Btu/kWh when the design  
19                   coal has a heat content of more than 8,000 Btu  
20                   per pound, and

21                   “(D) has a maximum design heat rate of  
22                   not more than 10,500 Btu/kWh when the de-  
23                   sign coal has a heat content of 8,000 Btu per  
24                   pound or less.

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

4           “(4) INFLATION ADJUSTMENT FACTOR.—The  
5 term ‘inflation adjustment factor’ means, with re-  
6 spect to a calendar year, a fraction the numerator  
7 of which is the GDP implicit price deflator for the  
8 preceding calendar year and the denominator of  
9 which is the GDP implicit price deflator for the cal-  
10 endar year 2000.

11           “(5) GDP IMPLICIT PRICE DEFLATOR.—The  
12 term ‘GDP implicit price deflator’ means the most  
13 recent revision of the implicit price deflator for the  
14 gross domestic product as computed by the Depart-  
15 ment of Commerce before March 15 of the calendar  
16 year.”.

17           (b) CREDIT TREATED AS BUSINESS CREDIT.—Sec-  
18 tion 38(b) of the Internal Revenue Code of 1986 is amend-  
19 ed by striking “plus” at the end of paragraph (11), by  
20 striking the period at the end of paragraph (12) and in-  
21 serting “, plus”, and by adding at the end the following:

22           “(13) the qualifying clean coal technology pro-  
23 duction credit determined under section 45D(a).

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

1 rules), as amended by section 201(d), is amended by add-  
 2 ing at the end the following:

3           “(10) NO CARRYBACK OF SECTION 45D 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 clean coal technology  
 7           production credit determined under section 45D may  
 8           be carried back to a taxable year ending before the  
 9           date of enactment of section 45D.”.

10          (d) CLERICAL AMENDMENT.—The table of sections  
 11 for subpart D of part IV of subchapter A of chapter 1  
 12 of the Internal Revenue Code of 1986 is amended by add-  
 13 ing at the end the following:

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

14          (e) MODIFICATIONS AND INSTALLATIONS NOT SUB-  
 15 JECT TO NEW SOURCE REVIEW, ETC.—

16           (1) EXEMPTION FROM NEW SOURCE REVIEW.—  
 17           Modifications made to an existing coal-based genera-  
 18           tion unit because of, or as part of a qualifying clean  
 19           coal technology unit (as defined in section 45D(c)(1)  
 20           of the Internal Revenue Code of 1986, as added by  
 21           subsection (a), shall be exempt from the new source  
 22           review provisions of the Clean Air Act (42 U.S.C.  
 23           7401 et seq.).

24           (2) EXEMPTION FROM EMISSION CONTROL RE-  
 25           QUIREMENTS.—The installation of a qualifying clean

1 coal technology (as so defined) on an existing coal-  
 2 based electricity generating unit, that meets or ex-  
 3 ceeds, for the applicable source category, the stand-  
 4 ard of performance for new stationary sources under  
 5 section 111 of the Clean Air Act (42 U.S.C. 7411),  
 6 shall exempt the existing unit from any new or in-  
 7 creased emission control requirements under title I  
 8 of such Act (42 U.S.C. 7401 et seq.) for a period  
 9 of 10 years after the date the qualifying clean coal  
 10 technology is originally placed in service.

11 (f) EFFECTIVE DATE.—The amendments made by  
 12 this section shall apply to production after the date of en-  
 13 actment of this Act.

14 **TITLE III—INCENTIVES FOR**  
 15 **EARLY COMMERCIAL APPLI-**  
 16 **CATIONS OF ADVANCED**  
 17 **CLEAN COAL TECHNOLOGIES**

18 **SEC. 301. CREDIT FOR INVESTMENT IN QUALIFYING AD-**  
 19 **VANCED CLEAN COAL TECHNOLOGY.**

20 (a) ALLOWANCE OF QUALIFYING ADVANCED CLEAN  
 21 COAL TECHNOLOGY FACILITY CREDIT.—Section 46 of  
 22 the Internal Revenue Code of 1986 (relating to amount  
 23 of credit), as amended by section 201(a), is amended by  
 24 striking “and” at the end of paragraph (3), by striking

1 the period at the end of paragraph (4) and inserting “,  
2 and”, and by adding at the end the following:

3 “(5) the qualifying advanced clean coal tech-  
4 nology facility credit.”.

5 (b) AMOUNT OF QUALIFYING ADVANCED CLEAN  
6 COAL TECHNOLOGY FACILITY CREDIT.—Subpart E of  
7 part IV of subchapter A of chapter 1 of the Internal Rev-  
8 enue Code of 1986 (relating to rules for computing invest-  
9 ment credit), as amended by section 201(b), is amended  
10 by inserting after section 48A the following:

11 **“SEC. 48B. QUALIFYING ADVANCED CLEAN COAL TECH-  
12 NOLOGY FACILITY CREDIT.**

13 “(a) IN GENERAL.—For purposes of section 46, the  
14 qualifying advanced clean coal technology facility credit  
15 for any taxable year is an amount equal to 10 percent  
16 of the qualified investment in a qualifying advanced clean  
17 coal technology facility for such taxable year.

18 “(b) QUALIFYING ADVANCED CLEAN COAL TECH-  
19 NOLOGY FACILITY.—

20 “(1) IN GENERAL.—For purposes of subsection  
21 (a), the term ‘qualifying advanced clean coal tech-  
22 nology facility’ means a facility of the taxpayer—

23 “(A)(i)(I) which replaces a conventional  
24 technology facility of the taxpayer and the origi-

1           nal use of which commences with the taxpayer,  
2           or

3           “(II) which is a retrofitted or repowered  
4           conventional technology facility, the retrofitting  
5           or repowering of which is completed by the tax-  
6           payer (but only with respect to that portion of  
7           the basis which is properly attributable to such  
8           retrofitting or repowering), or

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

11          “(B) that is depreciable under section 167,

12          “(C) that has a useful life of not less than  
13          4 years,

14          “(D) that is located in the United States,  
15          and

16          “(E) that uses qualifying advanced clean  
17          coal technology.

18          “(2) SPECIAL RULE FOR SALE-LEASEBACKS.—

19          For purposes of subparagraph (A) of paragraph (1),  
20          in the case of a facility that—

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 facility was origi-

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

11           “(3) QUALIFYING ADVANCED CLEAN COAL  
12          TECHNOLOGY.—For purposes of paragraph (1)—

13           “(A) IN GENERAL.—The term ‘qualifying  
14          advanced clean coal technology’ means, with re-  
15          spect to clean coal technology—

16           “(i) multiple applications, with a com-  
17          bined capacity of not more than 1,000  
18          megawatts, of advanced pulverized coal or  
19          atmospheric fluidized bed combustion  
20          technology—

21           “(I) installed as a new, retrofit,  
22          or repowering application,

23           “(II) operated between 2000 and  
24          2015, and

1                   “(III) with a design net heat rate  
2                   of not more than 8,750 Btu per kilo-  
3                   watt hour when the design coal has a  
4                   heat content of more than 8,000 Btu  
5                   per pound, or a design net heat rate  
6                   of not more than 9,900 Btu per kilo-  
7                   watt hour when the design coal has a  
8                   heat content of 8,000 Btu per pound  
9                   or less,

10                  “(ii) multiple applications, with a  
11                  combined capacity of not more than 1,000  
12                  megawatts, of pressurized fluidized bed  
13                  combustion technology—

14                         “(I) installed as a new, retrofit,  
15                         or repowering application,

16                         “(II) operated between 2000 and  
17                         2015, and

18                         “(III) with a design net heat rate  
19                         of not more than 8,400 Btu per kilo-  
20                         watt hour when the design coal has a  
21                         heat content of more than 8,000 Btu  
22                         per pound, or a design net heat rate  
23                         of not more than 9,900 Btu’s per kilo-  
24                         watt hour when the design coal has a

1 heat content of 8,000 Btu per pound  
2 or less,

3 “(iii) multiple applications, with a  
4 combined capacity of not more than 2,000  
5 megawatts, of integrated gasification com-  
6 bined cycle technology, with or without fuel  
7 or chemical co-production—

8 “(I) installed as a new, retrofit,  
9 or repowering application,

10 “(II) operated between 2000 and  
11 2015,

12 “(III) with a design net heat rate  
13 of not more than 8,550 Btu per kilo-  
14 watt hour when the design coal has a  
15 heat content of more than 8,000 Btu  
16 per pound, or a design net heat rate  
17 of not more than 9,900 Btu per kilo-  
18 watt hour when the design coal has a  
19 heat content of 8,000 Btu per pound  
20 or less, and

21 “(IV) with a net thermal effi-  
22 ciency on any fuel or chemical co-pro-  
23 duction of not less than 40 percent  
24 (higher heating value), and

1           “(iv) multiple applications, with a  
2           combined capacity of not more than 2,000  
3           megawatts of technology for the production  
4           of electricity—

5                   “(I) installed as a new, retrofit,  
6                   or repowering application,

7                   “(II) operated between 2000 and  
8                   2015, and

9                   “(III) with a carbon emission  
10                  rate that is not more than 85 percent  
11                  of conventional technology.

12           “(B) EXCEPTIONS.—Such term shall not  
13           include clean coal technology projects receiving  
14           or scheduled to receive funding under the Clean  
15           Coal Technology Program of the Department of  
16           Energy.

17           “(C) CLEAN COAL TECHNOLOGY.—The  
18           term ‘clean coal technology’ means advanced  
19           technology that uses coal to produce 75 percent  
20           or more of its thermal output as electricity in-  
21           cluding advanced pulverized coal or atmospheric  
22           fluidized bed combustion, pressurized fluidized  
23           bed combustion, integrated gasification com-  
24           bined cycle with or without fuel or chemical co-  
25           production, and any other technology for the

1 production of electricity that exceeds the per-  
2 formance of conventional technology.

3 “(D) CONVENTIONAL TECHNOLOGY.—The  
4 term ‘conventional technology’ means—

5 “(i) coal-fired combustion technology  
6 with a design net heat rate of not less than  
7 9,300 Btu per kilowatt hour (HHV) and a  
8 carbon equivalents emission rate of not  
9 more than 0.53 pounds of carbon per kilo-  
10 watt hour when the design coal has a heat  
11 content of more than 8,000 Btu per  
12 pound,

13 “(ii) coal-fired combustion technology  
14 with a design net heat rate of not less than  
15 10,500 Btu per kilowatt hour (HHV) and  
16 a carbon equivalents emission rate of not  
17 more than 0.60 pound of carbon per kilo-  
18 watt hour when the design coal has a heat  
19 content of 8,000 Btu per pound or less, or

20 “(iii) natural gas-fired combustion  
21 technology with a design net heat rate of  
22 not less than 7,500 Btu per kilowatt hour  
23 (HHV) and a carbon equivalents emission  
24 rate of not more than 0.24 pound of car-  
25 bon per kilowatt hour.

1           “(E) DESIGN NET HEAT RATE.—The de-  
2           sign net heat rate shall be based on the design  
3           annual heat input to and the design annual net  
4           electrical output from the qualifying advanced  
5           clean coal technology (determined without re-  
6           gard to such technology’s co-generation of  
7           steam).

8           “(F) SELECTION CRITERIA.—Selection cri-  
9           teria for clean coal technology facilities—

10                   “(i) shall be established by the Sec-  
11                   retary of Energy as part of a competitive  
12                   solicitation,

13                           “(ii) shall include primary criteria of  
14                           minimum design net heat rate, maximum  
15                           design thermal efficiency, and lowest cost  
16                           to the government, and

17                                   “(iii) shall include supplemental cri-  
18                                   teria as determined appropriate by the  
19                                   Secretary of Energy.

20           “(c) QUALIFIED INVESTMENT.—For purposes of sub-  
21           section (a), the term ‘qualified investment’ means, with  
22           respect to any taxable year, the basis of a qualifying ad-  
23           vanced clean coal technology facility placed in service by  
24           the taxpayer during such taxable year.

25           “(d) QUALIFIED PROGRESS EXPENDITURES.—

1           “(1) INCREASE IN QUALIFIED INVESTMENT.—  
2           In the case of a taxpayer who has made an election  
3           under paragraph (5), the amount of the qualified in-  
4           vestment of such taxpayer for the taxable year (de-  
5           termined under subsection (c) without regard to this  
6           section) shall be increased by an amount equal to  
7           the aggregate of each qualified progress expenditure  
8           for the taxable year with respect to progress expend-  
9           iture property.

10           “(2) PROGRESS EXPENDITURE PROPERTY DE-  
11           FINED.—For purposes of this subsection, the term  
12           ‘progress expenditure property’ means any property  
13           being constructed by or for the taxpayer and which  
14           it is reasonable to believe will qualify as a qualifying  
15           advanced clean coal technology facility which is  
16           being constructed by or for the taxpayer when it is  
17           placed in service.

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

20           “(A) SELF-CONSTRUCTED PROPERTY.—In  
21           the case of any self-constructed property, the  
22           term ‘qualified progress expenditures’ means  
23           the amount which, for purposes of this subpart,  
24           is properly chargeable (during such taxable

1           year) to capital account with respect to such  
2           property.

3           “(B) NONSELF-CONSTRUCTED PROP-  
4           PERTY.—In the case of nonself-constructed prop-  
5           erty, the term ‘qualified progress expenditures’  
6           means the amount paid during the taxable year  
7           to another person for the construction of such  
8           property.

9           “(4) OTHER DEFINITIONS.—For purposes of  
10          this subsection—

11           “(A) SELF-CONSTRUCTED PROPERTY.—  
12           The term ‘self-constructed property’ means  
13           property for which it is reasonable to believe  
14           that more than half of the construction expendi-  
15           tures will be made directly by the taxpayer.

16           “(B) NONSELF-CONSTRUCTED PROP-  
17           PERTY.—The term ‘nonself-constructed property’  
18           means property which is not self-constructed  
19           property.

20           “(C) CONSTRUCTION, ETC.—The term  
21           ‘construction’ includes reconstruction and erec-  
22           tion, and the term ‘constructed’ includes recon-  
23           structed and erected.

24           “(D) ONLY CONSTRUCTION OF QUALI-  
25           FYING ADVANCED CLEAN COAL TECHNOLOGY

1 FACILITY TO BE TAKEN INTO ACCOUNT.—Con-  
2 struction shall be taken into account only if, for  
3 purposes of this subpart, expenditures therefor  
4 are properly chargeable to capital account with  
5 respect to the property.

6 “(5) ELECTION.—An election under this sub-  
7 section may be made at such time and in such man-  
8 ner as the Secretary may by regulations prescribe.  
9 Such an election shall apply to the taxable year for  
10 which made and to all subsequent taxable years.  
11 Such an election, once made, may not be revoked ex-  
12 cept with the consent of the Secretary.

13 “(e) COORDINATION WITH OTHER CREDITS.—This  
14 section shall not apply to any property with respect to  
15 which the rehabilitation credit under section 47 or the en-  
16 ergy credit under section 48 is allowed unless the taxpayer  
17 elects to waive the application of such credit to such prop-  
18 erty.

19 “(f) TERMINATION.—This section shall not apply  
20 with respect to any qualified investment made more than  
21 10 years after the effective date of this section.”.

22 (c) RECAPTURE.—Section 50(a) of the Internal Rev-  
23 enue Code of 1986 (relating to other special rules), as  
24 amended by section 201(c), is amended by adding at the  
25 end the following:

1           “(7) SPECIAL RULES RELATING TO QUALIFYING  
2           ADVANCED CLEAN COAL TECHNOLOGY FACILITY.—  
3           For purposes of applying this subsection in the case  
4           of any credit allowable by reason of section 48B, the  
5           following shall apply:

6                   “(A) GENERAL RULE.—In lieu of the  
7                   amount of the increase in tax under paragraph  
8                   (1), the increase in tax shall be an amount  
9                   equal to the investment tax credit allowed under  
10                  section 38 for all prior taxable years with re-  
11                  spect to a qualifying advanced clean coal tech-  
12                  nology facility (as defined by section 48B(b)(1))  
13                  multiplied by a fraction whose numerator is the  
14                  number of years remaining to fully depreciate  
15                  under this title the qualifying advanced clean  
16                  coal technology facility disposed of, and whose  
17                  denominator is the total number of years over  
18                  which such facility would otherwise have been  
19                  subject to depreciation. For purposes of the  
20                  preceding sentence, the year of disposition of  
21                  the qualifying advanced clean coal technology  
22                  facility property shall be treated as a year of re-  
23                  maining depreciation.

24                   “(B) PROPERTY CEASES TO QUALIFY FOR  
25                  PROGRESS EXPENDITURES.—Rules similar to

1 the rules of paragraph (2) shall apply in the  
2 case of qualified progress expenditures for a  
3 qualifying advanced clean coal technology facil-  
4 ity under section 48B, except that the amount  
5 of the increase in tax under subparagraph (A)  
6 of this paragraph shall be substituted in lieu of  
7 the amount described in such paragraph (2).

8 “(C) APPLICATION OF PARAGRAPH.—This  
9 paragraph shall be applied separately with re-  
10 spect to the credit allowed under section 38 re-  
11 garding a qualifying advanced clean coal tech-  
12 nology facility.”.

13 (d) TRANSITIONAL RULE.—Section 39(d) of the In-  
14 ternal Revenue Code of 1986 (relating to transitional  
15 rules), as amended by section 202(c), is amended by add-  
16 ing at the end the following:

17 “(11) NO CARRYBACK OF SECTION 48B 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 advanced clean coal  
21 technology facility credit determined under section  
22 48B may be carried back to a taxable year ending  
23 before the date of the enactment of section 48B.”.

24 (e) TECHNICAL AMENDMENTS.—

1           (1) Section 49(a)(1)(C) of the Internal Revenue  
 2           Code of 1986, as amended by section 201(e)(1), is  
 3           amended by striking “and” at the end of clause (iii),  
 4           by striking the period at the end of clause (iv) and  
 5           inserting “, and”, and by adding at the end the fol-  
 6           lowing:

7                           “(v) the portion of the basis of any  
 8                           qualifying advanced clean coal technology  
 9                           facility attributable to any qualified invest-  
 10                          ment (as defined by section 48B(c)).”.

11           (2) Section 50(a)(4) of such Code, as amended  
 12           by section 201(e)(2), is amended by striking “and  
 13           (6)” and inserting “(6), and (7)”.

14           (3) Section 50(e)(6) of such Code, as added by  
 15           section 201(e)(3), is amended by inserting “or any  
 16           advanced clean coal technology facility credit under  
 17           section 48B” after “section 48A”.

18           (4) The table of sections for subpart E of part  
 19           IV of subchapter A of chapter 1, as amended by sec-  
 20           tion 201(e)(4), is amended by inserting after the  
 21           item relating to section 48A the following:

“Sec. 48B. Qualifying advanced clean coal technology facility credit.”.

22           (f) INSTALLATIONS NOT SUBJECT TO NEW SOURCE  
 23           REVIEW, ETC.—

24           (1) EXEMPTION FROM NEW SOURCE REVIEW.—

25           The installation of a qualifying advanced clean coal

1 technology facility (as defined in section 48B(b)(1)  
2 of the Internal Revenue Code of 1986, as added by  
3 subsection (b), shall be exempt from the new source  
4 review provisions of the Clean Air Act (42 U.S.C.  
5 7401 et seq.).

6 (2) EXEMPTION FROM EMISSION CONTROL RE-  
7 QUIREMENTS.—The installation of a qualifying ad-  
8 vanced clean coal technology facility (as so defined)  
9 that meets or exceeds, for the applicable source cat-  
10 egory, the standard of performance for new sta-  
11 tionary sources established under section 111 of the  
12 Clean Air Act (42 U.S.C. 7411), shall exempt that  
13 facility from any new or increased emission control  
14 requirements under title I of such Act (42 U.S.C.  
15 7401 et seq.) for a period of 10 years after the date  
16 the qualifying clean coal technology facility is origi-  
17 nally placed in service.

18 (g) EFFECTIVE DATE.—The amendments made by  
19 this section shall apply to periods after December 31,  
20 2000, under rules similar to the rules of section 48(m)  
21 of the Internal Revenue Code of 1986 (as in effect on the  
22 day before the date of the enactment of the Revenue Rec-  
23 onciliation Act of 1990).

1 **SEC. 302. CREDIT FOR PRODUCTION FROM QUALIFYING**  
2 **ADVANCED CLEAN COAL TECHNOLOGY.**

3 (a) CREDIT FOR PRODUCTION FROM QUALIFYING  
4 ADVANCED CLEAN COAL TECHNOLOGY.—Subpart D of  
5 part IV of subchapter A of chapter 1 of the Internal Rev-  
6 enue Code of 1986 (relating to business related credits),  
7 as amended by section 202(a), is amended by adding at  
8 the end the following:

9 **“SEC. 45E. CREDIT FOR PRODUCTION FROM QUALIFYING**  
10 **ADVANCED CLEAN COAL TECHNOLOGY.**

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

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

16 “(2) the sum of—

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

18 “(B) each 3413 Btu of fuels or chemicals,  
19 produced by the taxpayer during such taxable year  
20 at a qualifying advanced clean coal technology facil-  
21 ity during the 10-year period beginning on the date  
22 the facility was originally placed in service.

23 “(b) APPLICABLE AMOUNT.—For purposes of this  
24 section, the applicable amount of advanced clean coal tech-  
25 nology production credit with respect to production from

1 a qualifying advanced clean coal technology facility shall  
 2 be determined as follows:

3 “(1) Where the design coal has a heat content  
 4 of more than 8,000 Btu per pound:

5 “(A) In the case of a facility originally  
 6 placed in service before 2008, if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 8,400 .....	\$.0130	\$.0115
More than 8,400 but not more than 8,550 .....	\$.0100	\$.0080
More than 8,550 but not more than 8,750 .....	\$.0075	\$.0060.

7 “(B) In the case of a facility originally  
 8 placed in service after 2007 and before 2012,  
 9 if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,770 .....	\$.0135	\$.0110
More than 7,770 but not more than 8,125 .....	\$.0115	\$.0090
More than 8,125 but not more than 8,350 .....	\$.0090	\$.0080.

10 “(C) In the case of a facility originally  
 11 placed in service after 2011 and before 2016,  
 12 if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,380 .....	\$.0155	\$.0135
More than 7,380 but not more than 7,720 .....	\$.0135	\$.0115.

13 “(2) Where the design coal has a heat content  
 14 of not more than 8,000 Btu per pound:

1 “(A) In the case of a facility originally  
 2 placed in service before 2008, if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 8,500 .....	\$.0130	\$.0115
More than 8,500 but not more than 8,650 .....	\$.0100	\$.0080
More than 8,650 but not more than 8,750 .....	\$.0075	\$.0060.

3 “(B) In the case of a facility originally  
 4 placed in service after 2007 and before 2012,  
 5 if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 8,000 .....	\$.0135	\$.0110
More than 8,000 but not more than 8,250 .....	\$.0115	\$.0090
More than 8,250 but not more than 8,400 .....	\$.0090	\$.0080.

6 “(C) In the case of a facility originally  
 7 placed in service after 2011 and before 2016,  
 8 if—

“The facility design net heat rate, Btu/kWh (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not more than 7,800 .....	\$.0155	\$.0135
More than 7,800 but not more than 7,950 .....	\$.0135	\$.0115.

9 “(3) Where the clean coal technology facility is  
 10 producing fuel or chemicals:

11 “(A) In the case of a facility originally  
 12 placed in service before 2008, if—

“The facility design net thermal efficiency (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 40.6 percent .....	\$.0130	\$.0115
Less than 40.6 but not less than 40 percent .....	\$.0100	\$.0080
Less than 40 but not less than 39 percent .....	\$.0075	\$.0060.

1                   “(B) In the case of a facility originally  
 2                   placed in service after 2007 and before 2012,  
 3                   if—

“The facility design net thermal efficiency (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 43.9 percent .....	\$.0135	\$.0110
Less than 43.9 but not less than 42 percent .....	\$.0115	\$.0090
Less than 42 but not less than 40.9 percent .....	\$.0090	\$.0080.

4                   “(C) In the case of a facility originally  
 5                   placed in service after 2011 and before 2016,  
 6                   if—

“The facility design net thermal efficiency (HHV) is equal to:	The applicable amount is:	
	For 1st 5 years of such service	For 2d 5 years of such service
Not less than 44.2 percent .....	\$.0155	\$.0135
Less than 44.2 but not less than 43.6 percent .....	\$.0135	\$.0115.

7                   “(c) INFLATION ADJUSTMENT FACTOR.—For cal-  
 8                   endar years after 2001, each amount in paragraphs (1),  
 9                   (2), and (3) shall be adjusted by multiplying such amount  
 10                  by the inflation adjustment factor for the calendar year  
 11                  in which the amount is applied. If any amount has in-  
 12                  creased under the preceding sentence is not a multiple of  
 13                  0.01 cent, such amount shall be rounded to the nearest  
 14                  multiple of 0.01 cent.

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

17                         “(1) IN GENERAL.—Any term used in this sec-  
 18                         tion which is also used in section 48B shall have the  
 19                         meaning given such term in section 48B.

1           “(2) APPLICABLE RULES.—The rules of para-  
2           graphs (3), (4), and (5) of section 45 shall apply.

3           “(3) INFLATION ADJUSTMENT FACTOR.—The  
4           term ‘inflation adjustment factor’ means, with re-  
5           spect to a calendar year, a fraction the numerator  
6           of which is the GDP implicit price deflator for the  
7           preceding calendar year and the denominator of  
8           which is the GDP implicit price deflator for the cal-  
9           endar year 2000.

10           “(4) GDP IMPLICIT PRICE DEFLATOR.—The  
11           term ‘GDP implicit price deflator’ means the most  
12           recent revision of the implicit price deflator for the  
13           gross domestic product as computed by the Depart-  
14           ment of Commerce before March 15 of the calendar  
15           year.”.

16           (b) CREDIT TREATED AS BUSINESS CREDIT.—Sec-  
17           tion 38(b) of the Internal Revenue Code of 1986, as  
18           amended by section 202(b), is amended by striking “plus”  
19           at the end of paragraph (12), by striking the period at  
20           the end of paragraph (13) and inserting “, plus”, and by  
21           adding at the end the following:

22           “(14) the qualifying advanced clean coal tech-  
23           nology production credit determined under section  
24           45E(a).”

1 (c) TRANSITIONAL RULE.—Section 39(d) of the In-  
 2 ternal Revenue Code of 1986 (relating to transitional  
 3 rules), as amended by section 301(d), is amended by add-  
 4 ing at the end the following:

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

12 (d) CLERICAL AMENDMENT.—The table of sections  
 13 for subpart D of part IV of subchapter A of chapter 1  
 14 of the Internal Revenue Code of 1986, as amended by sec-  
 15 tion 202(d), is amended by adding at the end the fol-  
 16 lowing:

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

17 (e) EFFECTIVE DATE.—The amendments made by  
 18 this section shall apply to production after the date of the  
 19 enactment of this Act.

20 **SEC. 303. RISK POOL FOR QUALIFYING ADVANCED CLEAN**  
 21 **COAL TECHNOLOGY.**

22 (a) ESTABLISHMENT.—The Secretary of the Treas-  
 23 ury shall establish a financial risk pool which shall be  
 24 available to any United States owner of a qualifying ad-

1 vanced clean coal technology (as defined in section  
 2 48B(b)(3) of the Internal Revenue Code of 1986, as added  
 3 by section 301(b)) to offset for the first 3 years of the  
 4 operation of such technology the costs (not to exceed 5  
 5 percent of the total cost of installation) for modifications  
 6 resulting from the technology's failure to achieve its de-  
 7 sign performance.

8 (b) AUTHORIZATION OF APPROPRIATIONS.—There is  
 9 authorized to be appropriated such sums as are necessary  
 10 to carry out the purposes of this section.

11 **TITLE IV—TREATMENT OF**  
 12 **CERTAIN TAX-EXEMPT ENTITIES**

13 **SEC. 401. REFUNDABLE CREDITS FOR ELECTRIC COOPERA-**  
 14 **TIVES OR PUBLICLY OWNED ELECTRIC UTILI-**  
 15 **TIES.**

16 (a) REFUNDABLE CREDITS.—Section 6401(b) of the  
 17 Internal Revenue Code of 1986 (relating to excessive cred-  
 18 its) is amended by adding at the end the following:

19 “(3) SPECIAL RULE FOR CREDITS UNDER SEC-  
 20 TIONS 45D, 45E, 48A, AND 48B.—

21 “(A) IN GENERAL.—For purposes of para-  
 22 graph (1), the credits allowed under sections  
 23 45D, 45E, 48A, and 48B (relating to credits  
 24 for emission reductions and efficiency improve-  
 25 ments in existing coal-based generating facili-

1           ties) shall be treated for the taxable year as  
2           credits allowable under subpart C of part IV of  
3           subchapter A of chapter 1 (relating to refund-  
4           able credits) only if with respect to such taxable  
5           year—

6                   “(i) the taxpayer is an electric cooper-  
7                   ative which is—

8                           “(I) an organization engaged in  
9                           marketing, generating, purchasing,  
10                          transmitting, or distributing electric  
11                          energy,

12                          “(II) recognized for purposes of  
13                          this title as operating on a cooperative  
14                          basis, and

15                          “(III) the owner of a qualifying  
16                          system of continuous emission control  
17                          or a qualifying clean coal technology  
18                          unit or both or a qualifying advanced  
19                          clean coal technology facility from  
20                          which such credits are derived, or

21                   “(ii) the taxpayer is a public utility  
22                   which is—

23                           “(I) organized by an Act of Con-  
24                           gress or whose income would qualify  
25                           under section 115 as income derived

1 from a State or any subdivision there-  
2 of, and

3 “(II) the owner of the existing  
4 coal-based generating facility which is  
5 retrofitted, repowered, or replaced  
6 with a qualifying clean coal technology  
7 for purposes of the credit under sec-  
8 tion 45D or served by, added to by, or  
9 retrofitted with a qualifying system of  
10 continuous emission control for pur-  
11 poses of the credit under section 48A,  
12 or the owner of qualifying advanced  
13 clean coal technology for purposes of  
14 the credits under sections 45E and  
15 48B.

16 “(B) TREATMENT OF COOPERATIVE TAX-  
17 PAYER.—For purposes of this paragraph, an  
18 electric cooperative shall be deemed a taxpayer  
19 thereby qualifying for the credits described in  
20 sections 45D, 45E, 48A, and 48B notwith-  
21 standing any other provision to the contrary.

22 “(C) PUBLIC UTILITY DEFINED.—For pur-  
23 poses of this paragraph only, the term ‘public  
24 utility’ means a utility providing electricity that  
25 is owned by the Federal Government, a State or

1 local government, or any political subdivision  
2 thereof.

3 “(D) TREATMENT OF CREDIT.—Neither  
4 the amount of credit produced nor the amount  
5 of credit refunded pursuant to this paragraph  
6 shall result in income for purposes of section  
7 501(c)(12).

8 “(E) TREATMENT OF UNRELATED PER-  
9 SONS.—For purpose of this paragraph, the  
10 rules of section 45(d)(4) shall apply.

11 “(F) TREATMENT OF TVA.—This para-  
12 graph shall not with respect to the Tennessee  
13 Valley Authority.”.

14 **SEC. 402. OFFSET OF CERTAIN ANNUAL PAYMENT OBLIGA-**  
15 **TIONS IN LIEU OF QUALIFYING CLEAN COAL**  
16 **TECHNOLOGY CREDITS.**

17 (a) IN GENERAL.—Notwithstanding any other provi-  
18 sion of law, the Tennessee Valley Authority shall be enti-  
19 tled, with respect to its being an owner of a qualifying  
20 system of continuous emission control for purposes of the  
21 credit under section 45D of the Internal Revenue Code  
22 of 1986, a qualifying clean coal technology unit for pur-  
23 poses of the credit under section 48A of such Code, or  
24 a qualifying advanced clean coal technology facility for  
25 purposes of the credit under section 45E or 48B of such

1 Code, to have an amount, equal to the aggregate amount  
2 of such credits for any fiscal year, applied as a credit  
3 against the payments required to be made in such fiscal  
4 year under section 15d(e) of the Tennessee Valley Author-  
5 ity Act of 1933 (16 U.S.C. 831n-4(e)) as an annual re-  
6 turn on the appropriations investment and an annual re-  
7 payment sum.

8 (b) TREATMENT OF CREDITS.—The aggregate  
9 amount of credits described in subsection (a) shall be  
10 treated in the same manner and to the same extent as  
11 if such credits were a payment in cash and shall be applied  
12 first against the annual return on the appropriations in-  
13 vestment.

14 (c) CREDIT CARRYOVER.—With respect to any fiscal  
15 year, if the aggregate amount of credits described in sub-  
16 section (a) exceeds the aggregate amount of payment obli-  
17 gations described in subsection (a), the excess amount  
18 shall remain available to the Tennessee Valley Authority  
19 for application as credits against the amounts of such pay-  
20 ment obligations in succeeding fiscal years in the same  
21 manner as described in this section.

○