

107TH CONGRESS  
1ST SESSION

# S. 60

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

JANUARY 22, 2001

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—Power Plant Improvement Initiative**

Sec. 121. Power plant improvement initiative program.

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. Offset 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 clean, reliable, and af-  
20 fordable 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—Power Plant**  
5 **Improvement Initiative**

6 **SEC. 121. POWER PLANT IMPROVEMENT INITIATIVE PRO-**  
7 **GRAM.**

8 (a) IN GENERAL.—The Secretary shall carry out a  
9 power plant improvement initiative program that will dem-  
10 onstrate commercial applications of advanced coal-based  
11 technologies applicable to new or existing power plants,  
12 including co-production plants, which must advance the ef-  
13 ficiency, environmental performance, and cost competitive-  
14 ness well beyond that which is in operation or has been  
15 demonstrated on the date of enactment of this Act.

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

20 (1) the program elements and management  
21 structure to be used;

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

1           (3) the demonstration activities proposed to be  
2           conducted at new or existing coal-based electric gen-  
3           eration units having at least 50 megawatts name-  
4           plate rating, including improvements to allow the  
5           units to achieve 1 or more of the following:

6                   (A) An overall design efficiency improve-  
7                   ment of not less than 3 percent as compared  
8                   with the efficiency of the unit as operated on  
9                   the date of enactment of this Act and before  
10                  any retrofit, repowering, replacement, or instal-  
11                  lation.

12                  (B) A significant improvement in the envi-  
13                  ronmental performance related to the control of  
14                  sulfur dioxide, nitrogen oxide, and mercury in a  
15                  manner that is different and well below the cost  
16                  of technologies that are in operation or have  
17                  been demonstrated on the date of enactment of  
18                  this Act.

19                  (C) A means of recycling or reusing a sig-  
20                  nificant portion of coal combustion wastes pro-  
21                  duced by coal-based generating units excluding  
22                  practices that are commercially available at the  
23                  date of enactment of this Act.

1 **SEC. 122. FINANCIAL ASSISTANCE.**

2 (a) IN GENERAL.—Not later than 180 days after the  
3 date on which the Secretary submits to Congress the plan  
4 under section 121(b), the Secretary shall solicit proposals  
5 for projects at new or existing facilities designed to achieve  
6 the levels of performance set forth in section 121(b)(3).

7 (b) PROJECT CRITERIA.—A solicitation under sub-  
8 section (a) may include solicitation of a proposal for a  
9 project to demonstrate—

10 (1) the control of emissions of 1 or more pollut-  
11 ants; or

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

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

18 (1) demonstrate overall cost reductions in the  
19 utilization of coal to generate useful forms of energy;

20 (2) improve the competitiveness of coal among  
21 various forms of energy in order to maintain a diver-  
22 sity of fuel choices in the United States to meet elec-  
23 tricity generation requirements;

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

1           (4) demonstrate technologies that are applicable  
2           to 25 percent of the electricity generating facilities  
3           that use coal as the primary feedstock on the date  
4           of enactment of this Act.

5           (d) FEDERAL SHARE.—The Federal share cost of a  
6           project funded under this subtitle shall not exceed 50 per-  
7           cent.

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

12       **SEC. 123. FUNDING.**

13          To carry out this subtitle, the Secretary may use any  
14          unobligated funds available to the Secretary and any funds  
15          obligated to any project selected under the clean coal tech-  
16          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 10 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 which—

10 “(A) serves, is added to, or retrofits an ex-  
 11 isting coal-based electricity generation unit, the  
 12 construction, installation, or retrofitting of  
 13 which is completed by the taxpayer (but only  
 14 with respect to that portion of the basis which  
 15 is properly attributable to such construction, in-  
 16 stallation, or retrofitting),

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

20 “(C) is depreciable under section 167,

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

23 “(E) is located in the United States.



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

2           For purposes of subparagraph (A) of paragraph (1),  
3           in the case of a unit which—

4                   “(A) is originally placed in service by a  
5                   person, and

6                   “(B) is sold and leased back by such per-  
7                   son, or is leased to such person, within 3  
8                   months after the date such unit was originally  
9                   placed in service, for a period of not less than  
10                  12 years,

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

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

1       “(d) LIMIT ON QUALIFYING CLEAN COAL TECH-  
 2 NOLOGY UNIT CREDIT.—For purposes of subsection (a),  
 3 the credit shall be applicable to not more than the first  
 4 \$100,000,000 of qualifying investment in a qualifying sys-  
 5 tem of continuous emission control at any 1 existing coal-  
 6 based electricity generating unit.

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

12       “(f) 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 (e) 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 system of continuous emission control 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 SYSTEM OF CONTINUOUS EMISSION CON-  
13          TROL 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       “(g) 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       “(h) TERMINATION.—This section shall not apply  
 8 with respect to any qualified investment made more than  
 9 10 years after the effective date of this section.”.

10       (c) RECAPTURE.—Section 50(a) of the Internal Rev-  
 11 enue Code of 1986 (relating to other special rules) is  
 12 amended by adding at the end the following:

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

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

1 number of years remaining to fully depreciate  
2 under this title the qualifying system of contin-  
3 uous emission control disposed of, and whose  
4 denominator is the total number of years over  
5 which such unit would otherwise have been sub-  
6 ject to depreciation. For purposes of the pre-  
7 ceding sentence, the year of disposition of the  
8 qualifying system of continuous emission con-  
9 trol property shall be treated as a year of re-  
10 maining depreciation.

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

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

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

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

11 (e) TECHNICAL AMENDMENTS.—

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

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

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

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

1           “(6) NONAPPLICATION.—Paragraphs (1) and  
2           (2) shall not apply to any qualifying clean coal tech-  
3           nology 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:

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

8           (f) INSTALLATIONS NOT SUBJECT TO NEW SOURCE  
9           REVIEW, ETC.—

10           (1) EXEMPTION FROM NEW SOURCE REVIEW.—

11           The installation of a qualifying system of continuous  
12           emission control (as defined in section 48A(b)(1) of  
13           the Internal Revenue Code of 1986, as added by  
14           subsection (b)), shall be exempt from the new source  
15           review provisions of the Clean Air Act (42 U.S.C.  
16           7401 et seq.).

17           (2) EXEMPTION FROM EMISSION CONTROL RE-  
18           QUIREMENTS.—The installation of a qualifying sys-  
19           tem of continuous emission control (as so defined)  
20           on an existing coal-based electricity generating unit,  
21           which meets or exceeds, for the applicable source  
22           category and pollutant being controlled by such  
23           qualified system, the standard of performance for  
24           new stationary sources, shall exempt the existing  
25           unit from any new or increased emission control re-



1       quirements for the pollutant being controlled by such  
 2       qualified system under title I of the Clean Air Act  
 3       (42 U.S.C. 7401 et seq.) for a period of 10 years  
 4       after the date such qualified system is originally  
 5       placed in service.

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

12   **SEC. 202. CREDIT FOR PRODUCTION FROM A QUALIFYING**  
 13                   **CLEAN COAL TECHNOLOGY UNIT.**

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

19   **“SEC. 45E. CREDIT FOR PRODUCTION FROM A QUALIFYING**  
 20                   **CLEAN COAL TECHNOLOGY UNIT.**

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

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

3 “(2) the kilowatt hours of electricity produced  
4 by the taxpayer during such taxable year at a quali-  
5 fying clean coal technology unit during the 10-year  
6 period beginning on the date the unit was returned  
7 to service after retrofit, repowering, or replacement.

8 “(b) APPLICABLE AMOUNT.—

9 “(1) IN GENERAL.—For purposes of this sec-  
10 tion, the applicable amount of clean coal technology  
11 production credit is equal to \$0.0034.

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

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

23 “(1) QUALIFYING CLEAN COAL TECHNOLOGY  
24 UNIT.—The term ‘qualifying clean coal technology  
25 unit’ means a unit of the taxpayer which—

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

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

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

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

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

17           “(B) has a design heat rate not less than  
18           500 Btu/kWh below that of the existing unit be-  
19           fore it is retrofit, repowered, or replaced with  
20           the qualifying clean coal technology,

21           “(C) has a maximum design heat rate of  
22           not more than 9,000 Btu/kWh when the design  
23           coal has a heat content of more than 8,000 Btu  
24           per pound, and

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

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

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

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

21          “(d) COORDINATION WITH OTHER CREDITS.—This  
22          section shall not apply to any property with respect to  
23          which the qualifying clean coal technology unit credit  
24          under section 48A is allowed unless the taxpayer elects  
25          to waive the application of such credit to such property.”.

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

6 “(13) the qualifying clean coal technology pro-  
 7 duction credit determined under section 45E(a).”.

8 (c) TRANSITIONAL RULE.—Section 39(d) of the In-  
 9 ternal Revenue Code of 1986 (relating to transitional  
 10 rules), as amended by section 201(d), is amended by add-  
 11 ing at the end the following:

12 “(10) NO CARRYBACK OF SECTION 45E CREDIT  
 13 BEFORE EFFECTIVE DATE.—No portion of the un-  
 14 used business credit for any taxable year which is  
 15 attributable to the qualifying clean coal technology  
 16 production credit determined under section 45E may  
 17 be carried back to a taxable year ending before the  
 18 date of enactment of section 45E.”.

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

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

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

1           (1) EXEMPTION FROM NEW SOURCE REVIEW.—  
2       Modifications made to an existing coal-based genera-  
3       tion unit because of, or as part of a qualifying clean  
4       coal technology unit (as defined in section 45E(c)(1)  
5       of the Internal Revenue Code of 1986, as added by  
6       subsection (a)), shall be exempt from the new source  
7       review provisions of the Clean Air Act (42 U.S.C.  
8       7401 et seq.).

9           (2) EXEMPTION FROM EMISSION CONTROL RE-  
10      QUIREMENTS.—The installation of a qualifying clean  
11      coal technology unit (as so defined) on an existing  
12      coal-based electricity generating unit, which meets or  
13      exceeds, for the applicable source category, the  
14      standard of performance for new stationary sources  
15      under section 111 of the Clean Air Act (42 U.S.C.  
16      7411), shall exempt the existing unit from any new  
17      or increased emission control requirements under  
18      title I of such Act (42 U.S.C. 7401 et seq.) for a  
19      period of 10 years after the date the qualifying clean  
20      coal technology is originally placed in service.

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

1 **TITLE III—INCENTIVES FOR**  
 2 **EARLY COMMERCIAL APPLI-**  
 3 **CATIONS OF ADVANCED**  
 4 **CLEAN COAL TECHNOLOGIES**

5 **SEC. 301. CREDIT FOR INVESTMENT IN QUALIFYING AD-**  
 6 **VANCED CLEAN COAL TECHNOLOGY.**

7 (a) ALLOWANCE OF QUALIFYING ADVANCED CLEAN  
 8 COAL TECHNOLOGY FACILITY CREDIT.—Section 46 of  
 9 the Internal Revenue Code of 1986 (relating to amount  
 10 of credit), as amended by section 201(a), is amended by  
 11 striking “and” at the end of paragraph (3), by striking  
 12 the period at the end of paragraph (4) and inserting “,  
 13 and”, and by adding at the end the following:

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

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

22 **“SEC. 48B. QUALIFYING ADVANCED CLEAN COAL TECH-**  
 23 **NOLOGY FACILITY CREDIT.**

24 “(a) IN GENERAL.—For purposes of section 46, the  
 25 qualifying advanced clean coal technology facility credit

1 for any taxable year is an amount equal to 10 percent  
 2 of the qualified investment in a qualifying advanced clean  
 3 coal technology facility for such taxable year.

4 “(b) QUALIFYING ADVANCED CLEAN COAL TECH-  
 5 NOLOGY FACILITY.—

6 “(1) IN GENERAL.—For purposes of subsection  
 7 (a), the term ‘qualifying advanced clean coal tech-  
 8 nology facility’ means a facility of the taxpayer  
 9 which—

10 “(A)(i)(I) replaces a conventional tech-  
 11 nology facility of the taxpayer and the original  
 12 use of which commences with the taxpayer, or

13 “(II) is a retrofitted or repowered conven-  
 14 tional technology facility, the retrofitting or  
 15 repowering of which is completed by the tax-  
 16 payer (but only with respect to that portion of  
 17 the basis which is properly attributable to such  
 18 retrofitting or repowering), or

19 “(ii) is acquired through purchase (as de-  
 20 fined by section 179(d)(2)),

21 “(B) is depreciable under section 167,

22 “(C) has a useful life of not less than 4  
 23 years,

24 “(D) is located in the United States, and



1           “(E) uses qualifying advanced clean coal  
2           technology.

3           “(2) SPECIAL RULE FOR SALE-LEASEBACKS.—  
4           For purposes of subparagraph (A) of paragraph (1),  
5           in the case of a facility which—

6           “(A) is originally placed in service by a  
7           person, and

8           “(B) is sold and leased back by such per-  
9           son, or is leased to such person, within 3  
10          months after the date such facility was origi-  
11          nally placed in service, for a period of not less  
12          than 12 years,

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

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

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

1 “(i) multiple applications, with a com-  
2 bined capacity of not more than 5,000  
3 megawatts, of advanced pulverized coal or  
4 atmospheric fluidized bed combustion  
5 technology—

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

8 “(II) operated between 2000 and  
9 2011, and

10 “(III) with a design net heat rate  
11 of not more than 9,500 Btu per kilo-  
12 watt hour when the design coal has a  
13 heat content of more than 8,000 Btu  
14 per pound, or a design net heat rate  
15 of not more than 9,900 Btu per kilo-  
16 watt hour when the design coal has a  
17 heat content of 8,000 Btu per pound  
18 or less,

19 “(ii) multiple applications, with a  
20 combined capacity of not more than 1,000  
21 megawatts, of pressurized fluidized bed  
22 combustion technology—

23 “(I) installed as a new, retrofit,  
24 or repowering application,

1 “(II) operated between 2000 and  
2 2015, and

3 “(III) with a design net heat rate  
4 of not more than 8,400 Btu per kilo-  
5 watt hour when the design coal has a  
6 heat content of more than 8,000 Btu  
7 per pound, or a design net heat rate  
8 of not more than 9,900 Btu’s per kilo-  
9 watt hour when the design coal has a  
10 heat content of 8,000 Btu per pound  
11 or less,

12 “(iii) multiple applications, with a  
13 combined capacity of not more than 2,000  
14 megawatts, of integrated gasification com-  
15 bined cycle technology, with or without fuel  
16 or chemical co-production—

17 “(I) installed as a new, retrofit,  
18 or repowering application,

19 “(II) operated between 2000 and  
20 2015,

21 “(III) with a design net heat rate  
22 of not more than 8,550 Btu per kilo-  
23 watt hour when the design coal has a  
24 heat content of more than 8,000 Btu  
25 per pound, or a design net heat rate

1 of not more than 9,900 Btu per kilo-  
2 watt hour when the design coal has a  
3 heat content of 8,000 Btu per pound  
4 or less, and

5 “(IV) with a net thermal effi-  
6 ciency on any fuel or chemical co-pro-  
7 duction of not less than 39 percent  
8 (higher heating value), and

9 “(iv) multiple applications, with a  
10 combined capacity of not more than 2,000  
11 megawatts of technology for the production  
12 of electricity—

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

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

17 “(III) with a carbon emission  
18 rate which is not more than 85 per-  
19 cent of conventional technology.

20 “(B) EXCEPTIONS.—Such term shall not  
21 include clean coal technology projects receiving  
22 or scheduled to receive funding under the Clean  
23 Coal Technology Program of the Department of  
24 Energy.

1           “(C) CLEAN COAL TECHNOLOGY.—The  
 2           term ‘clean coal technology’ means advanced  
 3           technology which uses coal to produce 75 per-  
 4           cent or more of its thermal output as electricity  
 5           including advanced pulverized coal or atmos-  
 6           pheric fluidized bed combustion, pressurized flu-  
 7           idized bed combustion, integrated gasification  
 8           combined cycle with or without fuel or chemical  
 9           co-production, and any other technology for the  
 10          production of electricity which exceeds the per-  
 11          formance of conventional technology.

12           “(D) CONVENTIONAL TECHNOLOGY.—The  
 13          term ‘conventional technology’ means—

14           “(i) coal-fired combustion technology  
 15           with a design net heat rate of not less than  
 16           9,500 Btu per kilowatt hour (HHV) and a  
 17           carbon equivalents emission rate of not  
 18           more than 0.54 pounds of carbon per kilo-  
 19           watt hour when the design coal has a heat  
 20           content of more than 8,000 Btu per  
 21           pound,

22           “(ii) coal-fired combustion technology  
 23           with a design net heat rate of not less than  
 24           10,500 Btu per kilowatt hour (HHV) and  
 25           a carbon equivalents emission rate of not

more than 0.60 pounds of carbon per kilowatt hour when the design coal has a heat content of 8,000 Btu per pound or less, or

“(iii) natural gas-fired combustion technology with a design net heat rate of not less than 7,500 Btu per kilowatt hour (HHV) and a carbon equivalents emission rate of not more than 0.24 pounds of carbon per kilowatt hour.

“(E) DESIGN NET HEAT RATE.—The design net heat rate shall be based on the design annual heat input to and the design annual net electrical output from the qualifying advanced clean coal technology (determined without regard to such technology’s co-generation of steam).

“(F) SELECTION CRITERIA.—Selection criteria for clean coal technology facilities—

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

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

1 “(iii) shall include supplemental cri-  
 2 teria as determined appropriate by the  
 3 Secretary of Energy.

4 “(c) 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 ad-  
 7 vanced clean coal technology facility placed in service by  
 8 the taxpayer during such taxable year.

9 “(d) 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 (c) without regard to this  
 15 section) 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 advanced clean coal technology facility which is

1 being constructed by or for the taxpayer when it is  
 2 placed 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    ADVANCED    CLEAN    COAL    TECHNOLOGY  
11                  FACILITY TO BE TAKEN INTO ACCOUNT.—Con-  
12                  struction shall be taken into account only if, for  
13                  purposes of this subpart, expenditures therefor  
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                  “(e)    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 “(f) 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), as  
 9 amended by section 201(c), is amended by adding at the  
 10 end the following:

11 “(7) SPECIAL RULES RELATING TO QUALIFYING  
 12 ADVANCED CLEAN COAL TECHNOLOGY FACILITY.—  
 13 For purposes of applying this subsection in the case  
 14 of any credit allowable by reason of section 48B, 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 facility (as defined by section 48B(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 facility disposed of, and whose  
 2 denominator is the total number of years over  
 3 which such facility would otherwise have been  
 4 subject to depreciation. For purposes of the  
 5 preceding sentence, the year of disposition of  
 6 the qualifying advanced clean coal technology  
 7 facility property shall be treated as a year of re-  
 8 maining depreciation.

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 facil-  
 14 ity under section 48B, except that the amount  
 15 of the increase in tax under subparagraph (A)  
 16 of this paragraph shall be substituted in lieu of  
 17 the 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 facility.”.

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

1 rules), as amended by section 202(c), is amended by add-  
 2 ing at the end the following:

3 “(11) NO CARRYBACK OF SECTION 48B 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 facility credit determined under section  
 8 48B may be carried back to a taxable year ending  
 9 before the date of enactment of section 48B.”.

10 (e) TECHNICAL AMENDMENTS.—

11 (1) Section 49(a)(1)(C) of the Internal Revenue  
 12 Code of 1986, as amended by section 201(e)(1), is  
 13 amended by striking “and” at the end of clause (iii),  
 14 by striking the period at the end of clause (iv) and  
 15 inserting “, and”, and by adding at the end the fol-  
 16 lowing:

17 “(v) the portion of the basis of any  
 18 qualifying advanced clean coal technology  
 19 facility attributable to any qualified invest-  
 20 ment (as defined by section 48B(c)).”.

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

24 (3) Section 50(c)(6) of such Code, as added by  
 25 section 201(e)(3), is amended by inserting “or any

1 advanced clean coal technology facility credit under  
 2 section 48B” after “section 48A”.

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

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

7 (f) EFFECTIVE DATE.—The amendments made by  
 8 this section shall apply to periods after December 31,  
 9 2000, under rules similar to the rules of section 48(m)  
 10 of the Internal Revenue Code of 1986 (as in effect on the  
 11 day before the date of enactment of the Revenue Reconcili-  
 12 ation Act of 1990).

13 **SEC. 302. CREDIT FOR PRODUCTION FROM QUALIFYING**  
 14 **ADVANCED CLEAN COAL TECHNOLOGY.**

15 (a) CREDIT FOR PRODUCTION FROM QUALIFYING  
 16 ADVANCED CLEAN COAL TECHNOLOGY.—Subpart D of  
 17 part IV of subchapter A of chapter 1 of the Internal Rev-  
 18 enue Code of 1986 (relating to business related credits),  
 19 as amended by section 202(a), is amended by adding at  
 20 the end the following:

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

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 sum of—

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

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

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

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

17 “(A) In the case of a facility originally  
18 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 .....	\$.0050	\$.0030
More than 8,400 but not more than 8,550 .....	\$.0010	\$.0010
More than 8,550 but not more than 8,750 .....	\$.0005	\$.0005.

19 “(B) In the case of a facility originally  
20 placed in service after 2007 and before 2012,  
21 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 .....	\$.0090	\$.0075
More than 7,770 but not more than 8,125 .....	\$.0070	\$.0050
More than 8,125 but not more than 8,350 .....	\$.0060	\$.0040.

1                   “(C) In the case of a facility originally  
2                   placed in service after 2011 and before 2015,  
3                   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 .....	\$.0120	\$.0090
More than 7,380 but not more than 7,720 .....	\$.0095	\$.0070.

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

6                   “(A) In the case of a facility originally  
7                   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 .....	\$.0050	\$.0030
More than 8,500 but not more than 8,650 .....	\$.0010	\$.0010
More than 8,650 but not more than 8,750 .....	\$.0005	\$.0005.

8                   “(B) In the case of a facility originally  
9                   placed in service after 2007 and before 2012,  
10                  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 .....	\$.0090	\$.0075
More than 8,000 but not more than 8,250 .....	\$.0070	\$.0050
More than 8,250 but not more than 8,400 .....	\$.0060	\$.0040.

1 “(C) In the case of a facility originally  
 2 placed in service after 2011 and before 2015,  
 3 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 .....	\$.0120	\$.0090
More than 7,800 but not more than 7,950 .....	\$.0095	\$.0070.

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

6 “(A) In the case of a facility originally  
 7 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 .....	\$.0050	\$.0030
Less than 40.6 but not less than 40 percent .....	\$.0010	\$.0010
Less than 40 but not less than 39 percent .....	\$.0005	\$.0005.

8 “(B) In the case of a facility originally  
 9 placed in service after 2007 and before 2012,  
 10 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 .....	\$.0090	\$.0075
Less than 43.9 but not less than 42 percent .....	\$.0070	\$.0050
Less than 42 but not less than 40.9 percent .....	\$.0060	\$.0040.

11 “(C) In the case of a facility originally  
 12 placed in service after 2011 and before 2015,  
 13 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 .....	\$.0120	\$.0090



“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
Less than 44.2 but not less than 43.6 percent .....	\$.0095	\$.0070.

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

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

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

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

16           “(3) INFLATION ADJUSTMENT FACTOR.—The  
17   term ‘inflation adjustment factor’ means, with re-  
18   spect to a calendar year, a fraction the numerator  
19   of which is the GDP implicit price deflator for the  
20   preceding calendar year and the denominator of  
21   which is the GDP implicit price deflator for the cal-  
22   endar year 2000.

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

7           (b) CREDIT TREATED AS BUSINESS CREDIT.—Sec-  
 8           tion 38(b) of the Internal Revenue Code of 1986, as  
 9           amended by section 202(b), is amended by striking “plus”  
 10          at the end of paragraph (12), by striking the period at  
 11          the end of paragraph (13) and inserting “, plus”, and by  
 12          adding at the end the following:

13               “(14) the qualifying advanced clean coal tech-  
 14              nology production credit determined under section  
 15              45F(a).”.

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

20               “(12) NO CARRYBACK OF SECTION 45F CREDIT  
 21              BEFORE EFFECTIVE DATE.—No portion of the un-  
 22              used business credit for any taxable year which is  
 23              attributable to the qualifying advanced clean coal  
 24              technology production credit determined under sec-

1       tion 45F may be carried back to a taxable year end-  
 2       ing before the date of enactment of section 45F.”.

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

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

8       (e) INSTALLATIONS NOT SUBJECT TO NEW SOURCE  
 9 REVIEW, ETC.—

10           (1) EXEMPTION FROM NEW SOURCE REVIEW.—

11       The installation of a qualifying advanced clean coal  
 12       technology facility which has qualified for a quali-  
 13       fying advanced clean coal technology production  
 14       credit determined under section 45F of the Internal  
 15       Revenue Code of 1986, as added by subsection (a),  
 16       shall be exempt from the new source review provi-  
 17       sions of the Clean Air Act (42 U.S.C. 7401 et seq.).

18           (2) EXEMPTION FROM EMISSION CONTROL RE-

19       QUIREMENTS.—The installation of a qualifying ad-  
 20       vanced clean coal technology facility which has quali-  
 21       fied for a qualifying advanced clean coal technology  
 22       production credit determined under such section  
 23       45F and which meets or exceeds, for the applicable  
 24       source category, the standard of performance for

1 new stationary sources established under section 111  
 2 of the Clean Air Act (42 U.S.C. 7411), shall exempt  
 3 that facility from any new or increased emission con-  
 4 trol requirements under title I of such Act (42  
 5 U.S.C. 7401 et seq.) for a period of 10 years after  
 6 the date the qualifying clean coal technology facility  
 7 is originally placed in service.

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

11 **SEC. 303. RISK POOL FOR QUALIFYING ADVANCED CLEAN**  
 12 **COAL TECHNOLOGY.**

13 (a) ESTABLISHMENT.—The Secretary of the Treas-  
 14 ury shall establish a financial risk pool which shall be  
 15 available to any United States owner of a qualifying ad-  
 16 vanced clean coal technology which has qualified for an  
 17 advanced clean coal technology production credit (as de-  
 18 fined in section 45F of the Internal Revenue Code of  
 19 1986, as added by section 302) to offset for the first 3  
 20 years of the operation of such technology the costs (not  
 21 to exceed 5 percent of the total cost of installation) for  
 22 modifications resulting from the technology's failure to  
 23 achieve its design performance.

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

4 **TITLE IV—TREATMENT OF**  
 5 **CERTAIN TAX-EXEMPT ENTITIES**

6 **SEC. 401. OFFSET CREDITS FOR ELECTRIC COOPERATIVES**  
 7 **OR PUBLICLY OWNED ELECTRIC UTILITIES.**

8 (a) OFFSET CREDITS.—Section 6401(b) of the Inter-  
 9 nal Revenue Code of 1986 (relating to excessive credits)  
 10 is amended by adding at the end the following:

11 “(3) SPECIAL RULE FOR CREDITS UNDER SEC-  
 12 TIONS 45E, 45F, 48A, AND 48B.—

13 “(A) IN GENERAL.—For purposes of para-  
 14 graph (1), the credits allowed under sections  
 15 45E, 45F, 48A, and 48B (relating to credits  
 16 for emission reductions and efficiency improve-  
 17 ments in existing coal-based generating facili-  
 18 ties) shall be treated for the taxable year as  
 19 credits allowable under subpart C of part IV of  
 20 subchapter A of chapter 1 (relating to refund-  
 21 able credits) only if with respect to such taxable  
 22 year—

23 “(i) the taxpayer is an electric cooper-  
 24 ative which is—

1           “(I) an organization engaged in  
2           marketing, generating, purchasing,  
3           transmitting, or distributing electric  
4           energy,

5           “(II) recognized for purposes of  
6           this title as operating on a cooperative  
7           basis, and

8           “(III) the owner of a qualifying  
9           system of continuous emission control  
10          or a qualifying clean coal technology  
11          unit or both or a qualifying advanced  
12          clean coal technology facility from  
13          which such credits are derived, or

14          “(ii) the taxpayer is a public utility  
15          which is—

16               “(I) organized by an Act of Con-  
17               gress or whose income would qualify  
18               under section 115 as income derived  
19               from a State or any subdivision there-  
20               of, and

21               “(II) the owner of the existing  
22               coal-based generating facility which is  
23               retrofitted, repowered, or replaced  
24               with a qualifying clean coal technology  
25               for purposes of the credit under sec-

tion 45E or served by, added to by, or retrofitted with a qualifying system of continuous emission control for purposes of the credit under section 48A, or the owner of qualifying advanced clean coal technology for purposes of the credits under sections 45F and 48B.

“(B) TREATMENT OF COOPERATIVE TAXPAYER.—For purposes of this paragraph—

“(i) IN GENERAL.—An electric cooperative shall be deemed a taxpayer thereby qualifying for the credits described in sections 45E, 45F, 48A, and 48B notwithstanding any other provision to the contrary.

“(ii) USE OF OFFSET CREDITS.—Notwithstanding any other provision of law, in the case of a cooperative taxpayer, the credits described in sections 45E, 45F, 48A, and 48B shall be applied, without penalty, as a prepayment of any debt or obligation the cooperative has incurred under subchapter I of chapter 31 of title 7 of the Rural Electrification Act of 1936 (7

1 U.S.C. 901 et seq.). Such credits shall be  
 2 applied to loans as selected by the coopera-  
 3 tive.

4 “(C) PUBLIC UTILITY DEFINED.—For pur-  
 5 poses of this paragraph only, the term ‘public  
 6 utility’ means a utility providing electricity  
 7 which is owned by the Federal Government, a  
 8 State or local government, or any political sub-  
 9 division thereof.

10 “(D) TREATMENT OF CREDIT.—Neither  
 11 the amount of credit produced nor the amount  
 12 of credit refunded pursuant to this paragraph  
 13 shall result in income for purposes of section  
 14 501(c)(12).

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

18 “(F) TREATMENT OF TVA.—This para-  
 19 graph shall not apply with respect to the Ten-  
 20 nessee Valley Authority.”.

21 **SEC. 402. OFFSET OF CERTAIN ANNUAL PAYMENT OBLIGA-**  
 22 **TIONS IN LIEU OF QUALIFYING CLEAN COAL**  
 23 **TECHNOLOGY CREDITS.**

24 (a) IN GENERAL.—Notwithstanding any other provi-  
 25 sion of law, the Tennessee Valley Authority shall be enti-



1 tled, with respect to its being an owner of a qualifying  
 2 system of continuous emission control for purposes of the  
 3 credit under section 45E of the Internal Revenue Code  
 4 of 1986, a qualifying clean coal technology unit for pur-  
 5 poses of the credit under section 48A of such Code, or  
 6 a qualifying advanced clean coal technology facility for  
 7 purposes of the credit under section 45F or 48B of such  
 8 Code, to have an amount, equal to the aggregate amount  
 9 of such credits for any fiscal year, applied as a credit  
 10 against the payments required to be made in such fiscal  
 11 year under section 15d(e) of the Tennessee Valley Author-  
 12 ity Act of 1933 (16 U.S.C. 831n-4(e)) as an annual re-  
 13 turn on the appropriations investment and an annual re-  
 14 payment sum.

15 (b) TREATMENT OF CREDITS.—The aggregate  
 16 amount of credits described in subsection (a) shall be  
 17 treated in the same manner and to the same extent as  
 18 if such credits were a payment in cash and shall be applied  
 19 first against the annual return on the appropriations in-  
 20 vestment.

21 (c) CREDIT CARRYOVER.—With respect to any fiscal  
 22 year, if the aggregate amount of credits described in sub-  
 23 section (a) exceeds the aggregate amount of payment obli-  
 24 gations described in subsection (a), the excess amount  
 25 shall remain available to the Tennessee Valley Authority

- 1 for application as credits against the amounts of such pay-
- 2 ment obligations in succeeding fiscal years in the same
- 3 manner as described in this section.

