

## ENTITLEMENT TO CREDIT

Pub. L. 94-455, title VIII, §804(d), Oct. 4, 1976, 90 Stat. 1596, as amended by Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that: "Paragraph (1) of section 48(k) of the Internal Revenue Code of 1986 [formerly I.R.C. 1954] (relating to entitlement to credit) shall apply to any motion picture film or video tape placed in service in any taxable year beginning before January 1, 1975."

## INCREASE IN BASIS OF PROPERTY PLACED IN SERVICE BEFORE JANUARY 1, 1964

Pub. L. 88-272, title II, §203(a)(2), Feb. 26, 1964, 78 Stat. 33, as amended by Pub. L. 99-514, §2, Oct. 22, 1986, 100 Stat. 2095, provided that:

"(A) The basis of any section 38 property (as defined in section 48(a) of the Internal Revenue Code of 1986 [formerly I.R.C. 1954]) placed in service before January 1, 1964, shall be increased, under regulations prescribed by the Secretary of the Treasury or his delegate, by an amount equal to 7 percent of the qualified investment with respect to such property under section 46(c) of the Internal Revenue Code of 1986. If there has been any increase with respect to such property under section 48(g)(2) of such Code, the increase under the preceding sentence shall be appropriately reduced therefor.

"(B) If a lessor made the election provided by section 48(d) of the Internal Revenue Code of 1986 with respect to property placed in service before January 1, 1964—

"(i) subparagraph (A) shall not apply with respect to such property, but

"(ii) under regulations prescribed by the Secretary of the Treasury or his delegate, the deductions otherwise allowable under section 162 of such Code to the lessee for amounts paid to the lessor under the lease (or, if such lessee has purchased such property, the basis of such property) shall be adjusted in a manner consistent with subparagraph (A).

"(C) The adjustments under this paragraph shall be made as of the first day of the taxpayer's first taxable year which begins after December 31, 1963."

**§ 48A. Qualifying advanced coal project credit****(a) In general**

For purposes of section 46, the qualifying advanced coal project credit for any taxable year is an amount equal to—

(1) 20 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(i),

(2) 15 percent of the qualified investment for such taxable year in the case of projects described in subsection (d)(3)(B)(ii), and

(3) 30 percent of the qualified investment for such taxable year in the case of projects described in clause (iii) of subsection (d)(3)(B).

**(b) Qualified investment****(1) In general**

For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying advanced coal project—

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

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

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

**(2) Special rule for certain subsidized property**

Rules similar to section 48(a)(4) (without regard to subparagraph (D) thereof) shall apply for purposes of this section.

**(3) Certain qualified progress expenditures rules made applicable**

Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

**(c) Definitions**

For purposes of this section—

**(1) Qualifying advanced coal project**

The term "qualifying advanced coal project" means a project which meets the requirements of subsection (e).

**(2) Advanced coal-based generation technology**

The term "advanced coal-based generation technology" means a technology which meets the requirements of subsection (f).

**(3) Eligible property**

The term "eligible property" means—

(A) in the case of any qualifying advanced coal project using an integrated gasification combined cycle, any property which is a part of such project and is necessary for the gasification of coal, including any coal handling and gas separation equipment, and

(B) in the case of any other qualifying advanced coal project, any property which is a part of such project.

**(4) Coal**

The term "coal" means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

**(5) Greenhouse gas capture capability**

The term "greenhouse gas capture capability" means an integrated gasification combined cycle technology facility capable of adding components which can capture, separate on a long-term basis, isolate, remove, and sequester greenhouse gases which result from the generation of electricity.

**(6) Electric generation unit**

The term "electric generation unit" means any facility at least 50 percent of the total annual net output of which is electrical power, including an otherwise eligible facility which is used in an industrial application.

**(7) Integrated gasification combined cycle**

The term "integrated gasification combined cycle" means an electric generation unit which produces electricity by converting coal to synthesis gas which is used to fuel a combined-cycle plant which produces electricity from both a combustion turbine (including a combustion turbine/fuel cell hybrid) and a steam turbine.

**(d) Qualifying advanced coal project program****(1) Establishment**

Not later than 180 days after the date of enactment of this section, the Secretary, in consultation with the Secretary of Energy, shall

establish a qualifying advanced coal project program for the deployment of advanced coal-based generation technologies.

**(2) Certification**

**(A) Application period**

Each applicant for certification under this paragraph shall submit an application meeting the requirements of subparagraph (B). An applicant may only submit an application—

(i) for an allocation from the dollar amount specified in clause (i) or (ii) of paragraph (3)(B) during the 3-year period beginning on the date the Secretary establishes the program under paragraph (1), and

(ii) for an allocation from the dollar amount specified in paragraph (3)(B)(iii) during the 3-year period beginning at the earlier of the termination of the period described in clause (i) or the date prescribed by the Secretary.

**(B) Requirements for applications for certification**

An application under subparagraph (A) shall contain such information as the Secretary may require in order to make a determination to accept or reject an application for certification as meeting the requirements under subsection (e)(1). Any information contained in the application shall be protected as provided in section 552(b)(4) of title 5, United States Code.

**(C) Time to act upon applications for certification**

The Secretary shall issue a determination as to whether an applicant has met the requirements under subsection (e)(1) within 60 days following the date of submittal of the application for certification.

**(D) Time to meet criteria for certification**

Each applicant for certification shall have 2 years from the date of acceptance by the Secretary of the application during which to provide to the Secretary evidence that the criteria set forth in subsection (e)(2) have been met.

**(E) Period of issuance**

An applicant which receives a certification shall have 5 years from the date of issuance of the certification in order to place the project in service and if such project is not placed in service by that time period then the certification shall no longer be valid.

**(3) Aggregate credits**

**(A) In general**

The aggregate credits allowed under subsection (a) for projects certified by the Secretary under paragraph (2) may not exceed \$2,550,000,000.

**(B) Particular projects**

Of the dollar amount in subparagraph (A), the Secretary is authorized to certify—

(i) \$800,000,000 for integrated gasification combined cycle projects the application for which is submitted during the period described in paragraph (2)(A)(i),

(ii) \$500,000,000 for projects which use other advanced coal-based generation technologies the application for which is submitted during the period described in paragraph (2)(A)(i), and

(iii) \$1,250,000,000 for advanced coal-based generation technology projects the application for which is submitted during the period described in paragraph (2)(A)(ii).

**(4) Review and redistribution**

**(A) Review**

Not later than 6 years after the date of enactment of this section, the Secretary shall review the credits allocated under this section as of the date which is 6 years after the date of enactment of this section.

**(B) Redistribution**

The Secretary may reallocate credits available under clauses (i) and (ii) of paragraph (3)(B) if the Secretary determines that—

(i) there is an insufficient quantity of qualifying applications for certification pending at the time of the review, or

(ii) any certification made pursuant to paragraph (2) has been revoked pursuant to paragraph (2)(D) because the project subject to the certification has been delayed as a result of third party opposition or litigation to the proposed project.

**(C) Reallocation**

If the Secretary determines that credits under clause (i) or (ii) of paragraph (3)(B) are available for reallocation pursuant to the requirements set forth in paragraph (2), the Secretary is authorized to conduct an additional program for applications for certification.

**(5) Disclosure of allocations**

The Secretary shall, upon making a certification under this subsection or section 48B(d), publicly disclose the identity of the applicant and the amount of the credit certified with respect to such applicant.

**(e) Qualifying advanced coal projects**

**(1) Requirements**

For purposes of subsection (c)(1), a project shall be considered a qualifying advanced coal project that the Secretary may certify under subsection (d)(2) if the Secretary determines that, at a minimum—

(A) the project uses an advanced coal-based generation technology—

(i) to power a new electric generation unit; or

(ii) to retrofit or repower an existing electric generation unit (including an existing natural gas-fired combined cycle unit);

(B) the fuel input for the project, when completed, is at least 75 percent coal;

(C) the project, consisting of one or more electric generation units at one site, will have a total nameplate generating capacity of at least 400 megawatts;

(D) the applicant provides evidence that a majority of the output of the project is reasonably expected to be acquired or utilized;

(E) the applicant provides evidence of ownership or control of a site of sufficient size to allow the proposed project to be constructed and to operate on a long-term basis; (F) the project will be located in the United States; and

(G) in the case of any project the application for which is submitted during the period described in subsection (d)(2)(A)(ii), the project includes equipment which separates and sequesters at least 65 percent (70 percent in the case of an application for reallocated credits under subsection (d)(4)) of such project's total carbon dioxide emissions.

### (2) Requirements for certification

For the purpose of subsection (d)(2)(D), a project shall be eligible for certification only if the Secretary determines that—

(A) the applicant for certification has received all Federal and State environmental authorizations or reviews necessary to commence construction of the project; and

(B) the applicant for certification, except in the case of a retrofit or repower of an existing electric generation unit, has purchased or entered into a binding contract for the purchase of the main steam turbine or turbines for the project, except that such contract may be contingent upon receipt of a certification under subsection (d)(2).

### (3) Priority for certain projects

In determining which qualifying advanced coal projects to certify under subsection (d)(2), the Secretary shall—

(A) certify capacity, in accordance with the procedures set forth in subsection (d), in relatively equal amounts to—

- (i) projects using bituminous coal as a primary feedstock,
- (ii) projects using subbituminous coal as a primary feedstock, and
- (iii) projects using lignite as a primary feedstock,

(B) give high priority to projects which include, as determined by the Secretary—

- (i) greenhouse gas capture capability,
- (ii) increased by-product utilization,
- (iii) applicant participants who have a research partnership with an eligible educational institution (as defined in section 529(e)(5)), and
- (iv) other benefits, and

(C) give highest priority to projects with the greatest separation and sequestration percentage of total carbon dioxide emissions.

## (f) Advanced coal-based generation technology

### (1) In general

For the purpose of this section, an electric generation unit uses advanced coal-based generation technology if—

- (A) the unit—
  - (i) uses integrated gasification combined cycle technology, or
  - (ii) except as provided in paragraph (3), has a design net heat rate of 8530 Btu/kWh (40 percent efficiency), and
- (B) the unit is designed to meet the performance requirements in the following table:

### Performance characteristic: Design level for project:

SO <sub>2</sub> (percent removal) ....	99 percent
NO <sub>x</sub> (emissions) .....	0.07 lbs/MMBTU
PM* (emissions) .....	0.015 lbs/MMBTU
Hg (percent removal) .....	90 percent

For purposes of the performance requirement specified for the removal of SO<sub>2</sub> in the table contained in subparagraph (B), the SO<sub>2</sub> removal design level in the case of a unit designed for the use of feedstock substantially all of which is subbituminous coal shall be 99 percent SO<sub>2</sub> removal or the achievement of an emission level of 0.04 pounds or less of SO<sub>2</sub> per million Btu, determined on a 30-day average.

### (2) Design net heat rate

For purposes of this subsection, design net heat rate with respect to an electric generation unit shall—

(A) be measured in Btu per kilowatt hour (higher heating value),

(B) be based on the design annual heat input to the unit and the rated net electrical power, fuels, and chemicals output of the unit (determined without regard to the co-generation of steam by the unit),

(C) be adjusted for the heat content of the design coal to be used by the unit—

(i) if the heat content is less than 13,500 Btu per pound, but greater than 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate x [1-[(13,500-design coal heat content, Btu per pound)/1,000]\* 0.013]], and

(ii) if the heat content is less than or equal to 7,000 Btu per pound, according to the following formula: design net heat rate = unit net heat rate x [1-[(13,500-design coal heat content, Btu per pound)/1,000]\* 0.018]], and

(D) be corrected for the site reference conditions of—

- (i) elevation above sea level of 500 feet,
- (ii) air pressure of 14.4 pounds per square inch absolute,
- (iii) temperature, dry bulb of 63°F,
- (iv) temperature, wet bulb of 54°F, and
- (v) relative humidity of 55 percent.

### (3) Existing units

In the case of any electric generation unit in existence on the date of the enactment of this section, such unit uses advanced coal-based generation technology if, in lieu of the requirements under paragraph (1)(A)(ii), such unit achieves a minimum efficiency of 35 percent and an overall thermal design efficiency improvement, compared to the efficiency of the unit as operated, of not less than—

- (A) 7 percentage points for coal of more than 9,000 Btu,
- (B) 6 percentage points for coal of 7,000 to 9,000 Btu, or
- (C) 4 percentage points for coal of less than 7,000 Btu.

### (g) Applicability

No use of technology (or level of emission reduction solely by reason of the use of the technology), and no achievement of any emission re-

duction by the demonstration of any technology or performance level, by or at one or more facilities with respect to which a credit is allowed under this section, shall be considered to indicate that the technology or performance level is—

- (1) adequately demonstrated for purposes of section 111 of the Clean Air Act (42 U.S.C. 7411);
- (2) achievable for purposes of section 169 of that Act (42 U.S.C. 7479); or
- (3) achievable in practice for purposes of section 171 of such Act (42 U.S.C. 7501).

**(h) Competitive certification awards modification authority**

In implementing this section or section 48B, the Secretary is directed to modify the terms of any competitive certification award and any associated closing agreement where such modification—

- (1) is consistent with the objectives of such section,
- (2) is requested by the recipient of the competitive certification award, and
- (3) involves moving the project site to improve the potential to capture and sequester carbon dioxide emissions, reduce costs of transporting feedstock, and serve a broader customer base,

unless the Secretary determines that the dollar amount of tax credits available to the taxpayer under such section would increase as a result of the modification or such modification would result in such project not being originally certified. In considering any such modification, the Secretary shall consult with other relevant Federal agencies, including the Department of Energy.

**(i) Recapture of credit for failure to sequester**

The Secretary shall provide for recapturing the benefit of any credit allowable under subsection (a) with respect to any project which fails to attain or maintain the separation and sequestration requirements of subsection (e)(1)(G).

(Added Pub. L. 109-58, title XIII, §1307(b), Aug. 8, 2005, 119 Stat. 999; amended Pub. L. 109-432, div. A, title II, §203(a), Dec. 20, 2006, 120 Stat. 2945; Pub. L. 110-172, §11(a)(10), Dec. 29, 2007, 121 Stat. 2485; Pub. L. 110-234, title XV, §15346(a), May 22, 2008, 122 Stat. 1523; Pub. L. 110-246, §4(a), title XV, §15346(a), June 18, 2008, 122 Stat. 1664, 2285; Pub. L. 110-343, div. B, title I, §111(a)-(d), Oct. 3, 2008, 122 Stat. 3822, 3823; Pub. L. 111-5, div. B, title I, §1103(b)(2)(C), Feb. 17, 2009, 123 Stat. 321.)

**Editorial Notes**

**REFERENCES IN TEXT**

The enactment of the Revenue Reconciliation Act of 1990, referred to in subsec. (b)(3), is the date of enactment of title XI of Pub. L. 101-508, which was approved Nov. 5, 1990.

The date of enactment of this section, referred to in subssecs. (d)(1), (4)(A) and (f)(3), is the date of enactment of Pub. L. 109-58, which was approved Aug. 8, 2005.

**CODIFICATION**

Pub. L. 110-234 and Pub. L. 110-246 made identical amendments to this section. The amendments by Pub.

L. 110-234 were repealed by section 4(a) of Pub. L. 110-246.

**AMENDMENTS**

2009—Subsec. (b)(2). Pub. L. 111-5 inserted “(without regard to subparagraph (D) thereof)” after “section 48(a)(4)”.

2008—Subsec. (a)(3). Pub. L. 110-343, §111(a), added par. (3).

Subsec. (d)(2)(A). Pub. L. 110-343, §111(c)(2), reenacted heading without change and amended text generally. Prior to amendment, text read as follows: “Each applicant for certification under this paragraph shall submit an application meeting the requirements of subparagraph (B). An applicant may only submit an application during the 3-year period beginning on the date the Secretary establishes the program under paragraph (1).”

Subsec. (d)(3)(A). Pub. L. 110-343, §111(b), substituted “\$2,550,000,000” for “\$1,300,000,000”.

Subsec. (d)(3)(B). Pub. L. 110-343, §111(c)(1), reenacted heading without change and amended text generally. Prior to amendment, text read as follows: “Of the dollar amount in subparagraph (A), the Secretary is authorized to certify—

“(i) \$800,000,000 for integrated gasification combined cycle projects, and

“(ii) \$500,000,000 for projects which use other advanced coal-based generation technologies.”

Subsec. (d)(5). Pub. L. 110-343, §111(d), added par. (5).  
Subsec. (e)(1)(G). Pub. L. 110-343, §111(c)(3)(A), added subpar. (G).

Subsec. (e)(3). Pub. L. 110-343, §111(c)(5), substituted “certain” for “integrated gasification combined cycle” in heading.

Subsec. (e)(3)(B)(iii), (iv). Pub. L. 110-343, §111(c)(4), added cl. (iii) and redesignated former cl. (iii) as (iv).

Subsec. (e)(3)(C). Pub. L. 110-343, §111(c)(3)(B), added subpar. (C).

Subsec. (h). Pub. L. 110-246, §15346(a), added subsec. (h).

Subsec. (i). Pub. L. 110-343, §111(c)(3)(C), added subsec. (i).

2007—Subsec. (d)(4)(B)(ii). Pub. L. 110-172 struck out “subsection” before “paragraph” in two places.

2006—Subsec. (f)(1). Pub. L. 109-432 inserted concluding provisions.

**Statutory Notes and Related Subsidiaries**

**EFFECTIVE DATE OF 2009 AMENDMENT**

Amendment by Pub. L. 111-5 applicable to periods after Dec. 31, 2008, under rules similar to the rules of section 48(m) of this title as in effect on the day before Nov. 5, 1990, see section 1103(c)(1) of Pub. L. 111-5, set out as a note under section 25C of this title.

**EFFECTIVE DATE OF 2008 AMENDMENT**

Pub. L. 110-343, div. B, title I, §111(e), Oct. 3, 2008, 122 Stat. 3823, provided that:

“(1) **IN GENERAL.**—Except as otherwise provided in this subsection, the amendments made by this section [amending this section] shall apply to credits the application for which is submitted during the period described in section 48A(d)(2)(A)(ii) of the Internal Revenue Code of 1986 and which are allocated or reallocated after the date of the enactment of this Act [Oct. 3, 2008].

“(2) **DISCLOSURE OF ALLOCATIONS.**—The amendment made by subsection (d) [amending this section] shall apply to certifications made after the date of the enactment of this Act.

“(3) **CLERICAL AMENDMENT.**—The amendment made by subsection (c)(5) [amending this section] shall take effect as if included in the amendment made by section 1307(b) of the Energy Tax Incentives Act of 2005 [Pub. L. 109-58].”

Amendment of this section and repeal of Pub. L. 110-234 by Pub. L. 110-246 effective May 22, 2008, the

date of enactment of Pub. L. 110-234, except as otherwise provided, see section 4 of Pub. L. 110-246, set out as an Effective Date note under section 8701 of Title 7, Agriculture.

Pub. L. 110-234, title XV, §15346(b), May 22, 2008, 122 Stat. 1523, and Pub. L. 110-246, §4(a), title XV, §15346(b), June 18, 2008, 122 Stat. 1664, 2285, provided that: “The amendment made by this section [amending this section] shall take effect on the date of the enactment of this Act [June 18, 2008] and is applicable to all competitive certification awards entered into under section 48A or 48B of the Internal Revenue Code of 1986, whether such awards were issued before, on, or after such date of enactment.”

[Pub. L. 110-234 and Pub. L. 110-246 enacted identical provisions. Pub. L. 110-234 was repealed by section 4(a) of Pub. L. 110-246, set out as a note under section 8701 of Title 7, Agriculture.]

#### EFFECTIVE DATE OF 2006 AMENDMENT

Pub. L. 109-432, div. A, title II, §203(b), Dec. 20, 2006, 120 Stat. 2945, provided that: “The amendment made by this section [amending this section] shall take apply [sic] with respect to applications for certification under section 48A(d)(2) of the Internal Revenue Code of 1986 submitted after October 2, 2006.”

#### EFFECTIVE DATE

Section applicable to periods after Aug. 8, 2005, under rules similar to the rules of section 48(m) of this title, as in effect on the day before Nov. 5, 1990, see section 1307(d) of Pub. L. 109-58, set out as an Effective Date of 2005 Amendment note under section 46 of this title.

### § 48B. Qualifying gasification project credit

#### (a) In general

For purposes of section 46, the qualifying gasification project credit for any taxable year is an amount equal to 20 percent (30 percent in the case of credits allocated under subsection (d)(1)(B)) of the qualified investment for such taxable year.

#### (b) Qualified investment

##### (1) In general

For purposes of subsection (a), the qualified investment for any taxable year is the basis of eligible property placed in service by the taxpayer during such taxable year which is part of a qualifying gasification project—

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

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

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

##### (2) Special rule for certain subsidized property

Rules similar to section 48(a)(4) (without regard to subparagraph (D) thereof) shall apply for purposes of this section.

##### (3) Certain qualified progress expenditures rules made applicable

Rules similar to the rules of subsections (c)(4) and (d) of section 46 (as in effect on the day before the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of this section.

#### (c) Definitions

For purposes of this section—

#### (1) Qualifying gasification project

The term “qualifying gasification project” means any project which—

(A) employs gasification technology,

(B) will be carried out by an eligible entity, and

(C) any portion of the qualified investment of which is certified under the qualifying gasification program as eligible for credit under this section in an amount (not to exceed \$650,000,000) determined by the Secretary.

#### (2) Gasification technology

The term “gasification technology” means any process which converts a solid or liquid product from coal, petroleum residue, biomass, or other materials which are recovered for their energy or feedstock value into a synthesis gas composed primarily of carbon monoxide and hydrogen for direct use or subsequent chemical or physical conversion.

#### (3) Eligible property

The term “eligible property” means any property which is a part of a qualifying gasification project and is necessary for the gasification technology of such project.

#### (4) Biomass

##### (A) In general

The term “biomass” means any—

(i) agricultural or plant waste,

(ii) byproduct of wood or paper mill operations, including lignin in spent pulping liquors, and

(iii) other products of forestry maintenance.

##### (B) Exclusion

The term “biomass” does not include paper which is commonly recycled.

#### (5) Carbon capture capability

The term “carbon capture capability” means a gasification plant design which is determined by the Secretary to reflect reasonable consideration for, and be capable of, accommodating the equipment likely to be necessary to capture carbon dioxide from the gaseous stream, for later use or sequestration, which would otherwise be emitted in the flue gas from a project which uses a nonrenewable fuel.

#### (6) Coal

The term “coal” means anthracite, bituminous coal, subbituminous coal, lignite, and peat.

#### (7) Eligible entity

The term “eligible entity” means any person whose application for certification is principally intended for use in a domestic project which employs domestic gasification applications related to—

(A) chemicals,

(B) fertilizers,

(C) glass,

(D) steel,

(E) petroleum residues,

(F) forest products,

(G) agriculture, including feedlots and dairy operations, and