

114TH CONGRESS
2D SESSION

S. 3179

To amend the Internal Revenue Code of 1986 to improve and extend the credit for carbon dioxide sequestration.

IN THE SENATE OF THE UNITED STATES

JULY 13, 2016

Ms. HEITKAMP (for herself, Mr. WHITEHOUSE, Mr. TESTER, Mr. SCHATZ, Mr. BOOKER, and Mr. Kaine) introduced the following bill; which was read twice and referred to the Committee on Finance

A BILL

To amend the Internal Revenue Code of 1986 to improve and extend the credit for carbon dioxide sequestration.

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.**

4 This Act may be cited as the “Carbon Capture Utili-
5 zation and Storage Act”.

6 **SEC. 2. EXTENSION OF ENHANCED CARBON DIOXIDE SE-**
7 **QUESTRATION CREDIT.**

8 (a) IN GENERAL.—Section 45Q of the Internal Rev-
9 enue Code of 1986 is amended to read as follows:

1 **“SEC. 45Q. CREDIT FOR CARBON DIOXIDE SEQUESTRATION.**

2 “(a) GENERAL RULE.—For purposes of section 38,
3 the carbon dioxide sequestration credit for any taxable
4 year is an amount equal to the sum of—

5 “(1) \$20 per metric ton of qualified carbon di-
6 oxide which is—

7 “(A) captured by the taxpayer using quali-
8 fied carbon capture equipment which is origi-
9 nally placed in service at a qualified facility be-
10 fore the date of the enactment of the Carbon
11 Capture Utilization and Storage Act, and

12 “(B) disposed of by the taxpayer in secure
13 geological storage and not used by the taxpayer
14 as described in paragraph (2)(B),

15 “(2) \$10 per metric ton of qualified carbon di-
16 oxide which is—

17 “(A) captured by the taxpayer using quali-
18 fied carbon capture equipment which is origi-
19 nally placed in service at a qualified facility be-
20 fore the date of the enactment of the Carbon
21 Capture Utilization and Storage Act, and

22 “(B)(i) used by the taxpayer as a tertiary
23 injectant in a qualified enhanced oil or natural
24 gas recovery project and disposed of by the tax-
25 payer in secure geological storage, or

1 “(ii) utilized by the taxpayer in a manner
2 described in subsection (e)(7),

3 “(3) the applicable dollar amount (as deter-
4 mined under subsection (b)(1)) per metric ton of
5 qualified carbon dioxide which is—

6 “(A) captured by the taxpayer using quali-
7 fied carbon capture equipment which is origi-
8 nally placed in service at a qualified facility on
9 or after the date of the enactment of the Car-
10 bon Capture Utilization and Storage Act, dur-
11 ing the 12-year period beginning on the date
12 the equipment was originally placed in service,
13 and

14 “(B) disposed of by the taxpayer in secure
15 geological storage and not used by the taxpayer
16 as described in paragraph (4)(B), and

17 “(4) the applicable dollar amount (as deter-
18 mined under subsection (b)(1)) per metric ton of
19 qualified carbon dioxide which is—

20 “(A) captured by the taxpayer using quali-
21 fied carbon capture equipment which is origi-
22 nally placed in service at a qualified facility on
23 or after the date of the enactment of the Car-
24 bon Capture Utilization and Storage Act, dur-
25 ing the 12-year period beginning on the date

1 the equipment was originally placed in service,
2 and

3 “(B)(i) used by the taxpayer as a tertiary
4 injectant in a qualified enhanced oil or natural
5 gas recovery project and disposed of by the tax-
6 payer in secure geological storage, or

7 “(ii) utilized by the taxpayer in a manner
8 described in subsection (e)(7).

9 “(b) APPLICABLE DOLLAR AMOUNT; ADDITIONAL
10 EQUIPMENT; ELECTION.—

11 “(1) APPLICABLE DOLLAR AMOUNT.—

12 “(A) IN GENERAL.—The applicable dollar
13 amount shall be an amount equal to—

14 “(i) for any taxable year beginning in
15 a calendar year after 2015 and ending be-
16 fore 2026—

17 “(I) for purposes of paragraph
18 (3) of subsection (a), the dollar
19 amount established by linear inter-
20 polation between \$22.66 and \$50 for
21 each calendar year during such pe-
22 riod, and

23 “(II) for purposes of paragraph
24 (4) of such subsection, the dollar
25 amount established by linear inter-

1 polation between \$12.83 and \$35 for
2 each calendar year during such pe-
3 riod, and

4 “(ii) for any taxable year beginning in
5 a calendar year after 2025—

6 “(I) for purposes of paragraph
7 (3) of subsection (a), an amount equal
8 to the product of \$50 and the infla-
9 tion adjustment factor for such cal-
10 endar year determined under section
11 43(b)(3)(B) for such calendar year,
12 determined by substituting ‘2024’ for
13 ‘1990’, and

14 “(II) for purposes of paragraph
15 (4) of such subsection, an amount
16 equal to the product of \$35 and the
17 inflation adjustment factor for such
18 calendar year determined under sec-
19 tion 43(b)(3)(B) for such calendar
20 year, determined by substituting
21 ‘2024’ for ‘1990’.

22 “(B) ROUNDING.—The applicable dollar
23 amount determined under subparagraph (A)
24 shall be rounded to the nearest cent.

1 “(2) INSTALLATION OF ADDITIONAL CARBON
2 CAPTURE EQUIPMENT ON EXISTING QUALIFIED FA-
3 CILITY.—In the case of a qualified facility placed in
4 service before the date of the enactment of the Car-
5 bon Capture Utilization and Storage Act, for which
6 additional qualified carbon capture equipment is
7 placed in service on or after the date of the enact-
8 ment of the Carbon Capture Utilization and Storage
9 Act, the amount of qualified carbon dioxide which is
10 captured by the taxpayer shall be equal to—

11 “(A) for purposes of paragraphs (1)(A)
12 and (2)(A) of subsection (a), the lesser of—

13 “(i) the total amount of qualified car-
14 bon dioxide captured at such facility for
15 the taxable year, or

16 “(ii) the total amount of the carbon
17 dioxide capture capacity of the qualified
18 carbon capture equipment in service at
19 such facility on the day before the date of
20 the enactment of the Carbon Capture Uti-
21 lization and Storage Act, and

22 “(B) for purposes of paragraphs (3)(A)
23 and (4)(A) of such subsection, an amount (not
24 less than zero) equal to the excess of—

1 “(i) the amount described in clause (i)
2 of subparagraph (A), over

3 “(ii) the amount described in clause
4 (ii) of such subparagraph.

5 “(3) ELECTION.—For purposes of determining
6 the carbon dioxide sequestration credit under this
7 section, a taxpayer may elect to have the dollar
8 amounts applicable under paragraph (1) or (2) of
9 subsection (a) apply in lieu of the dollar amounts
10 applicable under paragraph (3) or (4) of such sub-
11 section for each metric ton of qualified carbon diox-
12 ide which is captured by the taxpayer using qualified
13 carbon capture equipment which is originally placed
14 in service at a qualified facility on or after the date
15 of the enactment of the Carbon Capture Utilization
16 and Storage Act.

17 “(c) QUALIFIED CARBON DIOXIDE.—For purposes of
18 this section—

19 “(1) IN GENERAL.—The term ‘qualified carbon
20 dioxide’ means carbon dioxide captured from an in-
21 dustrial source which—

22 “(A) would otherwise be released into the
23 atmosphere as industrial emission of green-
24 house gas, and

1 “(B) is measured at the source of capture
2 and verified at the point of disposal, injection,
3 or utilization.

4 “(2) RECYCLED CARBON DIOXIDE.—The term
5 ‘qualified carbon dioxide’ includes the initial deposit
6 of captured carbon dioxide used as a tertiary
7 injectant. Such term does not include carbon dioxide
8 that is recaptured, recycled, and re-injected as part
9 of the enhanced oil and natural gas recovery process.

10 “(d) QUALIFIED FACILITY AND QUALIFIED CARBON
11 CAPTURE EQUIPMENT.—

12 “(1) QUALIFIED FACILITY.—For purposes of
13 this section, the term ‘qualified facility’ means any
14 industrial facility—

15 “(A)(i) the construction of which begins
16 before January 1, 2024, and—

17 “(I) the original planning and design
18 for such facility includes installation of
19 qualified carbon capture equipment, or

20 “(II) construction of qualified carbon
21 capture equipment begins before such date,
22 or

23 “(ii) which is placed in service before Jan-
24 uary 1, 2024, and includes installation of quali-
25 fied carbon capture equipment, provided that

1 construction of such carbon capture equipment
2 begins before such date, and

3 “(B) which captures—

4 “(i) in the case of a facility which
5 emits not more than 500,000 metric tons
6 of carbon dioxide into the atmosphere dur-
7 ing the taxable year, not less than 25,000
8 metric tons of qualified carbon dioxide dur-
9 ing the taxable year which is utilized in a
10 manner described in subsection (e)(7),

11 “(ii) in the case of an electricity gen-
12 erating facility which is not described in
13 clause (i), not less than 500,000 metric
14 tons of qualified carbon dioxide during the
15 taxable year, or

16 “(iii) in the case of a facility not de-
17 scribed in clause (i) or (ii), not less than
18 100,000 metric tons of qualified carbon di-
19 oxide during the taxable year.

20 “(2) QUALIFIED CARBON CAPTURE EQUIP-
21 MENT.—For purposes of this section, the term
22 ‘qualified carbon capture equipment’ means—

23 “(A) carbon capture equipment placed in
24 service before January 1, 2024, and

1 “(B) carbon capture equipment the con-
2 struction of which begins before such date.

3 “(e) SPECIAL RULES AND OTHER DEFINITIONS.—

4 For purposes of this section—

5 “(1) ONLY CARBON DIOXIDE CAPTURED AND
6 DISPOSED OF OR USED WITHIN THE UNITED STATES
7 TAKEN INTO ACCOUNT.—The credit under this sec-
8 tion shall apply only with respect to qualified carbon
9 dioxide the capture and disposal, use, or utilization
10 of which is within—

11 “(A) the United States (within the mean-
12 ing of section 638(1)), or

13 “(B) a possession of the United States
14 (within the meaning of section 638(2)).

15 “(2) SECURE GEOLOGICAL STORAGE.—The Sec-
16 retary, in consultation with the Administrator of the
17 Environmental Protection Agency, the Secretary of
18 Energy, and the Secretary of the Interior, shall es-
19 tablish regulations for determining adequate security
20 measures for the geological storage of carbon dioxide
21 under subsection (a) such that the carbon dioxide
22 does not escape into the atmosphere. Such term
23 shall include storage at deep saline formations, oil
24 and gas reservoirs, and unminable coal seams under

1 such conditions as the Secretary may determine
2 under such regulations.

3 “(3) TERTIARY INJECTANT.—The term ‘ter-
4 tiary injectant’ has the same meaning as when used
5 within section 193(b)(1).

6 “(4) QUALIFIED ENHANCED OIL OR NATURAL
7 GAS RECOVERY PROJECT.—The term ‘qualified en-
8 hanced oil or natural gas recovery project’ has the
9 meaning given the term ‘qualified enhanced oil re-
10 covery project’ by section 43(c)(2), by substituting
11 ‘crude oil or natural gas’ for ‘crude oil’ in subpara-
12 graph (A)(i) thereof.

13 “(5) CREDIT ATTRIBUTABLE TO TAXPAYER.—

14 “(A) IN GENERAL.—Except as provided
15 subparagraph (B) or in any regulations pre-
16 scribed by the Secretary, any credit under this
17 section shall be attributable to—

18 “(i) in the case of qualified carbon di-
19 oxide captured using qualified carbon cap-
20 ture equipment which is originally placed
21 in service at a qualified facility before the
22 date of the enactment of the Carbon Cap-
23 ture Utilization and Storage Act, the per-
24 son that captures and physically or con-
25 tractually ensures the disposal, utilization,

1 or use as a tertiary injectant of such quali-
2 fied carbon dioxide, and

3 “(ii) in the case of qualified carbon di-
4 oxide captured using qualified carbon cap-
5 ture equipment which is originally placed
6 in service at a qualified facility on or after
7 the date of the enactment of the Carbon
8 Capture Utilization and Storage Act, the
9 person that owns the qualified carbon cap-
10 ture equipment and physically or contrac-
11 tually ensures the capture and disposal,
12 utilization, or use as a tertiary injectant of
13 such qualified carbon dioxide.

14 “(B) ELECTION.—If the person described
15 in subparagraph (A) makes an election under
16 this subparagraph in such time and manner as
17 the Secretary may prescribe by regulations, the
18 credit under this section—

19 “(i) shall be allowable to the person
20 that disposes of the qualified carbon diox-
21 ide, utilizes the qualified carbon dioxide, or
22 uses the qualified carbon dioxide as a ter-
23 tiary injectant, and

24 “(ii) shall not be allowable to the per-
25 son described in subparagraph (A).

1 “(6) RECAPTURE.—The Secretary shall, by reg-
2 ulations, provide for recapturing the benefit of any
3 credit allowable under subsection (a) with respect to
4 any qualified carbon dioxide which ceases to be cap-
5 tured, disposed of, or used as a tertiary injectant in
6 a manner consistent with the requirements of this
7 section.

8 “(7) UTILIZATION OF QUALIFIED CARBON DI-
9 OXIDE.—

10 “(A) IN GENERAL.—For purposes of this
11 section, utilization of qualified carbon dioxide
12 means—

13 “(i) the fixation of such qualified car-
14 bon dioxide through photosynthesis or
15 chemosynthesis, such as through the grow-
16 ing of algae or bacteria,

17 “(ii) the chemical conversion of such
18 qualified carbon dioxide to a material or
19 chemical compound in which such qualified
20 carbon dioxide is securely stored, or

21 “(iii) the use of such qualified carbon
22 dioxide for any other purpose for which a
23 commercial market exists (with the excep-
24 tion of use as a tertiary injectant in a
25 qualified enhanced oil or natural gas recov-

1 ery project), as determined by the Sec-
2 retary.

3 “(B) MEASUREMENT.—

4 “(i) IN GENERAL.—For purposes of
5 determining the amount of qualified carbon
6 dioxide utilized by the taxpayer under
7 paragraph (2)(B)(ii) or (4)(B)(ii) of sub-
8 section (a), such amount shall be equal to
9 the metric tons of carbon dioxide which the
10 taxpayer demonstrates, based upon an
11 analysis of lifecycle greenhouse gas emis-
12 sions and subject to such requirements as
13 the Secretary, in consultation with the Sec-
14 retary of Energy and the Administrator of
15 the Environmental Protection Agency, de-
16 termines appropriate, were captured and
17 prevented from escaping into the atmos-
18 phere through use of a process described in
19 subparagraph (A).

20 “(ii) LIFECYCLE GREENHOUSE GAS
21 EMISSIONS.—For purposes of clause (i),
22 the term ‘lifecycle greenhouse gas emis-
23 sions’ has the same meaning given such
24 term under subparagraph (H) of section
25 211(o)(1) of the Clean Air Act (42 U.S.C.

1 7545(o)(1)), as in effect on the date of the
2 enactment of the Carbon Capture Utiliza-
3 tion and Storage Act, except that ‘product’
4 shall be substituted for ‘fuel’ each place it
5 appears in such subparagraph.

6 “(8) INFLATION ADJUSTMENT.—In the case of
7 any taxable year beginning in a calendar year after
8 2009, there shall be substituted for each dollar
9 amount contained in paragraphs (1) and (2) of sub-
10 section (a) an amount equal to the product of—

11 “(A) such dollar amount, multiplied by

12 “(B) the inflation adjustment factor for
13 such calendar year determined under section
14 43(b)(3)(B) for such calendar year, determined
15 by substituting ‘2008’ for ‘1990’.

16 “(f) APPLICATION OF SECTION FOR CERTAIN CAR-
17 BON CAPTURE EQUIPMENT.—In the case of any qualified
18 carbon capture equipment placed in service before the date
19 of the enactment of the Carbon Capture Utilization and
20 Storage Act, the credit under this section shall apply with
21 respect to qualified carbon dioxide captured using such
22 equipment before the end of the calendar year in which
23 the Secretary, in consultation with the Administrator of
24 the Environmental Protection Agency, certifies that
25 75,000,000 metric tons of qualified carbon dioxide have

1 been taken into account in accordance with paragraphs (1)
2 and (2) of subsection (a) during the period beginning after
3 October 3, 2008.

4 “(g) REGULATIONS.—The Secretary may prescribe
5 such regulations and other guidance as may be necessary
6 or appropriate to carry out this section, including regula-
7 tions or other guidance to—

8 “(1) ensure proper allocation under subsection
9 (a) for qualified carbon dioxide captured by a tax-
10 payer during the taxable year ending after the date
11 of the enactment of the Carbon Capture Utilization
12 and Storage Act, and

13 “(2) determine whether a facility satisfies the
14 requirements under subsection (d)(1) during such
15 taxable year.”.

16 (b) EFFECTIVE DATE.—The amendments made by
17 this section shall take effect on the date of the enactment
18 of this Act.

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