To amend the Internal Revenue Code of 1986 to provide for a production and investment tax credit related to the production of clean hydrogen.

IN THE SENATE OF THE UNITED STATES

Mr. CARPER introduced the following bill; which was read twice and referred to the Committee on ________________

A BILL

To amend the Internal Revenue Code of 1986 to provide for a production and investment tax credit related to the production of clean hydrogen.

Be it enacted by the Senate and House of Representa-
tives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the “Clean H2 Production Act”.

SEC. 2. TAX CREDIT FOR PRODUCTION OF CLEAN HYDRO-
GEN.

(a) In General.—Subpart D of part IV of sub-
chapter A of chapter 1 of the Internal Revenue Code of
1986 is amended by adding at the end the following new section:

“SEC. 45U. CREDIT FOR PRODUCTION OF CLEAN HYDROGEN.

“(a) AMOUNT OF CREDIT.—For purposes of section 38, the clean hydrogen production credit for any taxable year is an amount equal to the product of—

“(1) the applicable amount, multiplied by

“(2) the kilograms of qualified clean hydrogen—

“(A) produced by the taxpayer at a qualified clean hydrogen production facility during the 10-year period beginning on the date the facility was placed in service, and

“(B)(i) sold by the taxpayer to an unrelated person during the taxable year,

“(ii) used by the taxpayer or a related person during the taxable year, or

“(iii) stored during the taxable year for subsequent use by the taxpayer or a related person.

“(b) APPLICABLE AMOUNT.—

“(1) IN GENERAL.—For purposes of subsection (a)(1), the applicable amount shall be an amount equal to the applicable percentage of $3.00. If any
amount as determined under the preceding sentence is not a multiple of 0.1 cent, such amount shall be rounded to the nearest multiple of 0.1 cent.

“(2) APPLICABLE PERCENTAGE.—For purposes of paragraph (1), the term ‘applicable percentage’ means—

“(A) in the case of any qualified clean hydrogen which is produced through a process that, as compared to hydrogen produced by steam-methane reforming, achieves a percentage reduction in lifecycle greenhouse gas emissions which is less than 75 percent, 20 percent,

“(B) in the case of any qualified clean hydrogen which is produced through a process that, as compared to hydrogen produced by steam-methane reforming, achieves a percentage reduction in lifecycle greenhouse gas emissions which is not less than 75 percent and less than 85 percent, 25 percent,

“(C) in the case of any qualified clean hydrogen which is produced through a process that, as compared to hydrogen produced by steam-methane reforming, achieves a percentage reduction in lifecycle greenhouse gas emis-
sions which is not less than 85 percent and less
than 95 percent, 34 percent, and

“(D) in the case of any qualified clean hy-
drogen which is produced through a process
that, as compared to hydrogen produced by
steam-methane reforming, achieves a percent-
age reduction in lifecycle greenhouse gas emis-
sions which is not less than 95 percent, 100
percent.

“(3) Inflation Adjustment.—The $3.00
amount in paragraph (1) shall be adjusted by multi-
plying such amount by the inflation adjustment fac-
tor (as determined under section 45(e)(2), deter-
mined by substituting ‘2020’ for ‘1992’ in subpara-
graph (B) thereof) for the calendar year in which
the sale or use of the qualified clean hydrogen oc-
curs. If any amount as increased under the pre-
ceding sentence is not a multiple of 0.1 cent, such
amount shall be rounded to the nearest multiple of
0.1 cent.

“(c) Credit Reduction.—The amount of the credit
determined under subsection (a) with respect to any quali-
fied clean hydrogen production facility for any taxable
year shall be reduced in a manner similar to the reduction
applied under section 45(b)(3).
“(d) Definitions.—For purposes of this section—

“(1) Lifecycle greenhouse gas emissions.—For purposes of this section, the term ‘lifecycle greenhouse gas emissions’ has the same meaning given such term under subparagraph (H) of section 211(o)(1) of the Clean Air Act (42 U.S.C. 7545(o)(1)), as in effect on the date of enactment of this section, as related to the full fuel lifecycle through the point of hydrogen production.

“(2) Qualified clean hydrogen.—

“(A) In general.—The term ‘qualified clean hydrogen’ means hydrogen which is produced through a process that, as compared to hydrogen produced by steam-methane reforming of non-renewable natural gas, achieves a percentage reduction in lifecycle greenhouse gas emissions which is not less than 50 percent.

“(B) Exclusion.—The term ‘qualified clean hydrogen’ shall not include any hydrogen for which a credit is allowed for the taxable year—

“(i) under section 38 which is properly allocable to any credit determined under this part (other than this section), or
“(ii) under subchapter B of chapter 65 of subtitle F.

“(3) QUALIFIED CLEAN HYDROGEN PRODUCTION FACILITY.—

“(A) IN GENERAL.—The term ‘qualified clean hydrogen production facility’ means—

“(i) a facility owned by the taxpayer—

“(I) which produces qualified clean hydrogen which, with respect to any taxable year, is sold by the taxpayer to an unrelated person or used by the taxpayer,

“(II) which satisfies the requirements under subparagraphs (B) and (C), and

“(III) the construction of which begins before January 1, 2030, and

“(ii) in connection with any facility described in clause (i), any property used to convert feedstock to hydrogen, including any equipment or supporting facility which—

“(I) accepts or receives feedstock,
“(II) conditions or stores feed-stock or hydrogen, or

“(III) distributes or redistributes hydrogen.

“(B) WAGE REQUIREMENTS.—The requirements described in this subparagraph with respect to any facility are that the taxpayer shall ensure that any laborers and mechanics employed by contractors and subcontractors in—

“(i) the construction of such facility,

or

“(ii) for any year during the period described in subsection (a)(2)(A) which begins after the date of the enactment of this section, the alteration or repair of such facility,

shall be paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality as determined by the Secretary of Labor, in accordance with subchapter IV of chapter 31 of title 40, United States Code.

“(C) LABOR REQUIREMENTS.—
“(i) Apprenticeships.—The requirements described in this subparagraph with respect to any facility are that the taxpayer shall ensure that all contractors and subcontractors engaged in the performance of construction, alteration, or repair work on any facility shall, subject to clause (ii), ensure that not less than 15 percent of the total labor hours of such work be performed by qualified apprentices.

“(ii) Apprentice-to-Journeyworker Ratio.—The requirement under clause (i) shall be subject to any applicable requirements for apprentice-to-journeyworker ratios of the Department of Labor or the applicable State apprenticeship agency.

“(iii) Participation.—Each contractor and subcontractor described in clause (i) that employs 4 or more individuals to perform construction, alteration, or repair work on any facility shall employ 1 or more qualified apprentices to perform such work.
“(iv) EXCEPTION.—Notwithstanding any other provision in this subparagraph, this subparagraph shall not apply in the case of a taxpayer who—

“(I) demonstrates a lack of availability of qualified apprentices in the geographic area of the construction, alteration, or repair work, and

“(II) makes a good faith effort, and its contractors and subcontractors make a good faith effort, to comply with the requirements of this subparagraph.

“(4) STEAM-METHANE REFORMING.—The term ‘steam-methane reforming’ means a hydrogen production process in which high-temperature steam is used to produce hydrogen from natural gas, without carbon capture and sequestration.

“(e) SPECIAL RULES.—

“(1) IN GENERAL.—Rules similar to the rules of paragraphs (3) and (4) of section 45(e) shall apply for purposes of this section.

“(2) PRODUCTION IN THE UNITED STATES.—No credit shall be allowed under this section with respect to any qualified clean hydrogen which is pro-
duced outside of the United States (as defined in section 638(1) or any possession of the United States (as defined in section 638(2)).

“(f) GUIDANCE.—Not later than 1 year after the date of enactment of this section, the Secretary, in consultation with the Secretary of Energy and Administrator of the Environmental Protection Agency, shall publish guidance prescribing methods for determining the credit based on lifecycle greenhouse gas emissions. For purposes of the preceding sentence, such methods shall consider the emissions associated with any feedstock or energy source which is not co-located at the qualified clean hydrogen production facility if—

“(1) such feedstock or energy source is contractually obtained by the taxpayer,

“(2) the taxpayer provides sufficient legal assurances that no other person can claim credit for the environmental attributes of such feedstock or energy source, and

“(3) environmental attributes of the non co-located feedstock or energy source are only considered to the extent the taxpayer consumes an equivalent amount of the feedstock or energy source in the production of hydrogen, whereas—
“(A) in the case of electricity used to produce hydrogen then only an equivalent amount of electricity which is not co-located may be considered, and

“(B) in the case of natural gas used to produce hydrogen then only an equivalent amount of biogas which is not co-located may be considered.”.

(b) CONFORMING AMENDMENTS.—

(1) Section 38(b) of the Internal Revenue Code of 1986 is amended—

(A) in paragraph (32), by striking “plus” at the end,

(B) in paragraph (33), by striking the period at the end and inserting “, plus”, and

(C) by adding at the end the following new paragraph:

“(34) the clean hydrogen production credit determined under section 45U(a).”.

(2) The table of sections for subpart D of part IV of subchapter A of chapter 1 of such Code is amended by adding at the end the following new item:

“(Sec. 45U. Clean hydrogen production credit.”.
(c) Effective Date.—The amendments made by this section shall apply to hydrogen used or sold after December 31, 2020.

SEC. 3. EXPANSION OF ENERGY CREDIT TO INCLUDE CLEAN HYDROGEN PRODUCTION FACILITIES.

(a) In General.—Section 48(a)(5) of the Internal Revenue Code of 1986 is amended—

(1) in subparagraph (A)(ii), by inserting “subject to subparagraph (G)(i),” before “the energy percentage”,

(2) in subparagraph (B), by inserting “or 45U” after “section 45”,

(3) in subparagraph (C)—

(A) in clause (i), by inserting “or, subject to subparagraph (G)(ii), a qualified clean hydrogen production facility (as defined in section 45U(d)(3)) which meets the requirements of section 45U(b)(2)(C)” after “section 45(d)”,

(B) in clause (ii), by inserting “(or, in the case of a qualified clean hydrogen production facility, which is placed in service after 2020 and the construction of which begins before January 1, 2030)” after “January 1, 2022”, and
(C) in clause (iii)(I), by inserting “or 45U” after “section 45”, and

(4) by adding at the end the following:

“(G) QUALIFIED CLEAN HYDROGEN PRODUCTION FACILITIES.—

“(i) ENERGY PERCENTAGE.—

“(I) IN GENERAL.—For purposes of subparagraph (A)(ii), in the case of a qualified investment credit facility which is a qualified clean hydrogen production facility, the energy percentage with respect to such facility shall be an amount (expressed as a percentage) equal to—

“(aa) in the case of a facility which is estimated to produce qualified clean hydrogen (as defined in described in section 45U(d)(2)) which is described in subparagraph (A) of section 45U(b)(2), 20 percent of the energy percentage otherwise applicable under subparagraph (A)(ii),

“(bb) in the case of a facility which is estimated to produce
qualified clean hydrogen which is described in subparagraph (B) of section 45U(b)(2), 25 percent of the energy percentage otherwise applicable under subparagraph (A)(ii),

“(ee) in the case of a facility which is estimated to produce qualified clean hydrogen which is described in subparagraph (C) of section 45U(b)(2), 34 percent of the energy percentage otherwise applicable under subparagraph (A)(ii), and

“(dd) in the case of a facility which is estimated to produce qualified clean hydrogen which is described in subparagraph (D) of section 45U(b)(2), 100 percent of the energy percentage otherwise applicable under subparagraph (A)(ii).

“(II) RECAPTURE.—The Secretary shall, by regulations, provide for recapturing the benefit of any
credit allowable under this section with respect to any qualified clean hydrogen production facility which significantly fails to produce qualified clean hydrogen consistent with the applicable percentage reduction in lifecycle greenhouse gas emissions described in section 45U(b)(2) which were estimated for such facility pursuant to subclause (I).

“(ii) No double benefit.—For purposes of this paragraph, the term ‘qualified investment credit facility’ shall not include any qualified clean hydrogen production facility for which a credit is allowed under section 38 for the taxable year or any prior taxable year which is properly allocable to any credit determined under—

“(I) this section (other than pursuant to this paragraph), or

“(II) section 45, 45J, or 45Q.”.

(b) EFFECTIVE DATE.—The amendments made by this section shall apply to property placed in service after December 31, 2020.