

116TH CONGRESS
1ST SESSION

H. R. 5523

To amend the Internal Revenue Code of 1986 to provide investment and production tax credits for emerging energy technologies, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

DECEMBER 19, 2019

Mr. REED (for himself, Mr. PANETTA, Mr. LAHOOD, Mr. SUOZZI, Mr. GOTTHEIMER, and Mr. SCHWEIKERT) introduced the following bill; which was referred to the Committee on Ways and Means

A BILL

To amend the Internal Revenue Code of 1986 to provide investment and production tax credits for emerging energy technologies, and for other purposes.

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 “Energy Sector Innova-
5 tion Credit Act of 2019”.

6 SEC. 2. PURPOSES.

7 The energy sector innovation credit is a technology-
8 neutral approach that would leverage new private invest-
9 ment in nascent clean technologies, help cutting-edge tech-

1 nologies break into the market, and then naturally
2 phasedown as each technology proves commercial viability.
3 It could bring about the new technologies needed to quick-
4 ly and cheaply reduce global emissions. The innovation
5 ESIC incentivizes is key to a strong energy supply plus
6 will help address the climate and environmental challenge
7 of this generation. The United States must lead on clean
8 energy technology development.

9 **SEC. 3. INVESTMENT CREDIT FOR EMERGING ENERGY**
10 **TECHNOLOGY.**

11 (a) **IN GENERAL.**—Subpart E of part IV of sub-
12 chapter A of chapter 1 of the Internal Revenue Code of
13 1986 is amended by inserting after section 48C the fol-
14 lowing new section:

15 **“SEC. 48D. EMERGING ENERGY TECHNOLOGY CREDIT.**

16 **“(a) IN GENERAL.**—For purposes of section 46, the
17 emerging energy technology credit for any taxable year is
18 an amount equal to 30 percent of the basis of any qualified
19 emerging energy property placed in service by the taxpayer
20 during such taxable year.

21 **“(b) CERTAIN QUALIFIED PROGRESS EXPENDITURE**
22 **RULES MADE APPLICABLE.**—Rules similar to the rules of
23 subsections (c)(4) and (d) of section 46 (as in effect on
24 the day before the enactment of the Revenue Reconcili-
25 ation Act of 1990) shall apply for purposes of this section.

1 “(c) QUALIFIED EMERGING ENERGY PROPERTY.—

2 For purposes of this section—

3 “(1) IN GENERAL.—The term ‘qualified emerg-
4 ing energy property’ means property which is con-
5 structed, reconstructed, erected, or acquired by the
6 taxpayer, and the original use of which commences
7 with the taxpayer, which is—

8 “(A) a qualified production facility (as de-
9 fined in section 45T(d), determined without re-
10 gard to paragraph (2) thereof) which is a tier
11 1 facility (as defined in section 45T(e)(1)), or

12 “(B) property which is placed in service at
13 and used in connection with an existing electric
14 generating facility which is a point source of air
15 pollutants and which, with respect to such facil-
16 ity—

17 “(i) contains equipment which can
18 separate and sequester—

19 “(I) not less than 60 percent of
20 such facility’s maximum hourly car-
21 bon oxide emission rate, and

22 “(II) not less than 100,000 met-
23 ric tons of qualified carbon oxide (as
24 defined in section 45Q(c)) annually,
25 and

1 “(ii) places such carbon oxide in se-
2 cure geological storage (as determined
3 under section 45Q(f)(2)).

4 “(2) DENIAL OF DOUBLE BENEFIT.—Such
5 term shall not include—

6 “(A) any property which,

7 “(B) property any portion of which, or

8 “(C) property placed in service at and used
9 in connection with a facility which,

10 has been treated as a qualified facility for purposes
11 of section 45(d), as an advanced nuclear power facil-
12 ity for purposes of section 45J, as a qualified facility
13 for purposes of section 45Q, as a qualified produc-
14 tion facility for purposes of section 45T, as energy
15 property for purposes of section 48, or as a qualified
16 investment for purposes of section 48A, 48B, or
17 48C, for any taxable year.

18 “(3) POINT SOURCE.—For purposes of para-
19 graph (1)(B), the term ‘point source’ means a mega-
20 watt-scale, stationary and non-mobile, identifiable
21 source of emissions that releases pollutants into the
22 atmosphere.

23 “(d) FIRST OF ITS KIND TECHNOLOGY.—

24 “(1) IN GENERAL.—In the case of any qualified
25 emerging energy property which is the first of its

1 kind, subsection (a) shall be applied by substituting
2 ‘40’ for ‘30’.

3 “(2) FIRST OF ITS KIND.—Property shall be
4 treated as the first of its kind if such property is
5 of the first 3 original demonstrations in the United
6 States of a megawatt-scale electric power generation
7 facility which generates revenue from sales of elec-
8 tric power to an unrelated person (within the mean-
9 ing of section 45(e)(4)).

10 “(3) DETERMINATION.—

11 “(A) IN GENERAL.—The Secretary, in con-
12 sultation with the Secretary of Energy, shall de-
13 velop a process to determine whether qualified
14 emerging energy property is first of its kind.
15 Such process shall include a certification, at the
16 request of the taxpayer before the commence-
17 ment of construction, that the property will be
18 treated as first of its kind.

19 “(B) EFFECTIVE PERIOD OF CERTIFI-
20 CATION.—Except as provided by the Secretary,
21 a certification granted under subparagraph (A)
22 with respect to any property shall be in effect
23 for the period, not to exceed 5 years, beginning
24 on the date of the certification and ending on
25 the date construction commences with respect

1 to the property. If construction does not com-
2 mence within the 5-year period beginning on
3 the date of the certification, the property shall
4 not be treated as first of its kind unless the cer-
5 tification is renewed.

6 “(e) TRANSFER OF CREDIT BY CERTAIN PUBLIC EN-
7 TITIES.—

8 “(1) IN GENERAL.—If, with respect to a credit
9 under subsection (a) for any taxable year—

10 “(A) a qualified public entity would be the
11 taxpayer (but for this paragraph), and

12 “(B) such entity elects the application of
13 this paragraph for such taxable year with re-
14 spect to all (or any portion specified in such
15 election) of such credit, the eligible project part-
16 ner specified in such election, and not the quali-
17 fied public entity, shall be treated as the tax-
18 payer for purposes of this title with respect to
19 such credit (or such portion thereof).

20 “(2) DEFINITIONS.—For purposes of this sub-
21 section—

22 “(A) QUALIFIED PUBLIC ENTITY.—The
23 term ‘qualified public entity’ means—

1 “(i) a Federal, State, or local govern-
2 ment entity, or any political subdivision,
3 agency, or instrumentality thereof,

4 “(ii) a mutual or cooperative electric
5 company described in section 501(c)(12) or
6 1381(a)(2), or

7 “(iii) a not-for-profit electric utility
8 which had or has received a loan or loan
9 guarantee under the Rural Electrification
10 Act of 1936.

11 “(B) ELIGIBLE PROJECT PARTNER.—The
12 term ‘eligible project partner’ means any person
13 who—

14 “(i) is responsible for, or participates
15 in, the design or construction of the quali-
16 fied emerging energy property to which the
17 credit under subsection (a) relates,

18 “(ii) is a financial institution pro-
19 viding financing for the construction or op-
20 eration of such property (other than fi-
21 nancing provided in connection with be-
22 coming eligible for the credit under this
23 section by reason of this subsection), or

24 “(iii) has an ownership interest in
25 such property.

1 “(3) SPECIAL RULES.—

2 “(A) APPLICATION TO PARTNERSHIPS.—In
3 the case of a credit under subsection (a) which
4 is determined at the partnership level—

5 “(i) for purposes of paragraph (1)(A),
6 a qualified public entity shall be treated as
7 the taxpayer with respect to such entity’s
8 distributive share of such credit, and

9 “(ii) the term ‘eligible project partner’
10 shall include any partner of the partner-
11 ship.

12 “(B) TAXABLE YEAR IN WHICH CREDIT
13 TAKEN INTO ACCOUNT.—In the case of any
14 credit (or portion thereof) with respect to which
15 an election is made under paragraph (1), such
16 credit shall be taken into account in the first
17 taxable year of the eligible project partner end-
18 ing with, or after, the qualified public entity’s
19 taxable year with respect to which the credit
20 was determined.

21 “(C) TREATMENT OF TRANSFER UNDER
22 PRIVATE USE RULES.—For purposes of section
23 141(b)(1), any benefit derived by an eligible
24 project partner in connection with an election

1 under this subsection shall not be taken into ac-
2 count as a private business use.

3 “(f) CERTAIN RULES NOT APPLICABLE.—Para-
4 graphs (3) and (4) of section 50(d) shall not apply for
5 purposes of this section.”.

6 (b) SPECIAL RULE FOR PROCEEDS OF TRANSFERS
7 FOR MUTUAL OR COOPERATIVE ELECTRIC COMPANIES.—
8 Section 501(c)(12)(I) of such Code is amended by insert-
9 ing “or 48D(e)” after “section 45J(e)(1)”.

10 (c) CONFORMING AMENDMENTS.—

11 (1) Section 46 of such Code is amended by
12 striking “and” at the end of paragraph (5), by strik-
13 ing the period at the end of paragraph (6) and in-
14 sserting “, and”, and by adding at the end the fol-
15 lowing new paragraph:

16 “(7) the emerging energy technology credit.”.

17 (2) Section 49(a)(1)(C) of such Code is amend-
18 ed by striking “and” at the end of clause (iv), by
19 striking the period at the end of clause (v) and in-
20 sserting “, and”, and by adding at the end the fol-
21 lowing new clause:

22 “(vi) the basis of any qualified emerg-
23 ing energy property (as defined in section
24 48D(c)(1)).”.

1 “(1) the annual gross receipts of the taxpayer
2 from the sale of electricity generated at the qualified
3 production facility to an unrelated person (within
4 the meaning of section 45(e)(4)) during such taxable
5 year, or

6 “(2) the product of—

7 “(A) the national average wholesale price
8 of a kilowatt hour of electricity in the preceding
9 taxable year, as determined by the Secretary in
10 consultation with the Administrator of the En-
11 ergy Information Administration, and

12 “(B) the number of kilowatt hours of elec-
13 tricity produced at the qualified production fa-
14 cility and sold to an unrelated person (within
15 the meaning of section 45(e)(4)) during the tax-
16 able year.

17 “(b) APPLICABLE PERCENTAGE.—For purposes of
18 subsection (a), the applicable percentage is—

19 “(1) in the case of a tier 1 facility, 60 percent,

20 “(2) in the case of a tier 2 facility, 45 percent,

21 “(3) in the case of a tier 3 facility, 30 percent,

22 and

23 “(4) in the case of any other facility, zero per-
24 cent.

1 “(c) CREDIT PERIOD.—For purposes of this section,
2 the credit period with respect to any qualified production
3 facility is the 10-year period beginning with the date the
4 facility was originally placed in service.

5 “(d) QUALIFIED PRODUCTION FACILITY.—For pur-
6 poses of this section—

7 “(1) IN GENERAL.—The term ‘qualified produc-
8 tion facility’ means any electric generating facility
9 which is certified by the Secretary, which is located
10 in the United States or a possession of the United
11 States (as such terms are used in section 638), and
12 which utilizes—

13 “(A) any power conversion fuel-based tech-
14 nology which captures and sequesters at least
15 60 percent of the produced carbon oxide,

16 “(B) any reactor design licensed by the
17 Nuclear Regulatory Commission which produces
18 electricity through nuclear fission or a fusion
19 chain reaction and which—

20 “(i) reduces the high-level radioactive
21 waste or spent nuclear fuel per unit of en-
22 ergy yield,

23 “(ii) improves fuel utilization by not
24 less than 20 percent,

1 “(iii) decreases core damage frequency
2 or large early release frequency by at least
3 a factor of 10, or

4 “(iv) increases thermal efficiency by
5 not less than 20 percent, as compared to
6 existing nuclear commercial technologies,

7 “(C) any new technology or new improve-
8 ment to technology which generates electricity
9 from renewable energy, as defined in section
10 203(b)(2) of the Energy Policy Act of 2005,
11 and which generates at least a 20-percent in-
12 crease in the conversion efficiency or a 20-per-
13 cent increase in the capacity factor of the facil-
14 ity as compared with the commercial technology
15 of the same type as such technology which is
16 considered to be the best of its type in commer-
17 cial use,

18 “(D) technology which the Secretary, in
19 consultation with the Secretary of Energy, de-
20 termines would increase the technical resource
21 potential for renewable energy development in
22 the United States by at least 500 terawatt
23 hours per year, or

24 “(E) technology which the Secretary, in
25 consultation with the Secretary of Energy, de-

1 termines could produce electricity with an emis-
2 sions rate less than 150g Co2-e per kWh with
3 a 75-percent capacity factor.

4 “(2) DENIAL OF DOUBLE BENEFIT.—Such
5 term shall not include any facility which has been
6 treated as a qualified facility for purposes of section
7 45(d), as an advanced nuclear power facility for pur-
8 poses of section 45J, as a qualified facility for pur-
9 poses of section 45Q, as energy property for pur-
10 poses of section 48, as a qualified investment for
11 purposes of section 48A, 48B, or 48C, or as quali-
12 fied emerging energy property for purposes of sec-
13 tion 48D, for any taxable year.

14 “(3) Co2-e.—The term ‘Co2-e’ means the quan-
15 tity of a greenhouse gas that has a global warming
16 potential equivalent to 1 metric ton of carbon diox-
17 ide, as determined under table A–1 of subpart A of
18 part 98 of title 40, Code of Federal Regulations, as
19 in effect on the date of enactment of this section.

20 “(4) CONVERSION EFFICIENCY.—The term
21 ‘conversion efficiency’ means the fraction—

22 “(A) the numerator of which is the total
23 useful electrical or thermal power produced by
24 an electric generating facility at normal oper-

1 ating rates, and expected to be consumed in its
2 normal application, and

3 “(B) the denominator of which is the inci-
4 dent energy, whether mechanical, radiation, or
5 thermal energy, which is measurable at the
6 input of the electric generating facility.

7 “(5) ENERGY EFFICIENCY.—The efficiency of
8 an electric generating facility is the fraction—

9 “(A) the numerator of which is the total
10 useful electrical, thermal, and mechanical power
11 which is produced by the facility at normal op-
12 erating rates and expected to be consumed in
13 its normal operation, and

14 “(B) the denominator of which is the lower
15 heating value of the energy sources for the fa-
16 cility.

17 “(6) PERFORMANCE BASELINE.—Not less fre-
18 quently than every 10 years, the Secretary, in con-
19 sultation with the Secretary of Energy, shall estab-
20 lish baseline levels with respect to the types of elec-
21 tric generating facilities and the measures of per-
22 formance described in paragraph (1) which a facility
23 must exceed in order to meet the requirements of
24 such paragraph.

1 “(7) COMMERCIAL TECHNOLOGY.—The term
2 ‘commercial technology’ means a design that has
3 been installed in and is being used in 3 or more
4 projects in the United States marketplace in the
5 same general application as in the electric gener-
6 ating facility, and has been in such use in at least
7 1 of such projects for a period of at least 5 years.

8 “(8) CORE DAMAGE FREQUENCY.—The term
9 ‘core damage frequency’ means the likelihood that,
10 given the way a reactor is designed and operated, an
11 accident could cause the fuel in the reactor to be
12 damaged.

13 “(9) LARGE EARLY RELEASE FREQUENCY.—
14 The term ‘large early release frequency’ means the
15 likelihood of a release into the environment of a suf-
16 ficiently large quantity of fission products in an
17 early enough time frame to have the potential for a
18 prompt fatality.

19 “(10) GROSS RECOVERABLE RESOURCE POTEN-
20 TIAL.—The term ‘gross recoverable resource poten-
21 tial’ means the subset of total resource potential for
22 any given renewable energy resource within the
23 boundaries of the United States economic exclusion
24 zone that can be considered theoretically recoverable
25 without allowing for common technological con-

1 straits that exist as of the most recent date on
2 which the Secretary has established baseline levels
3 described in paragraph (6).

4 “(11) TECHNICAL RESOURCE POTENTIAL.—The
5 term ‘technical resource potential’ means the subset
6 of gross recoverable resource potential for any given
7 renewable energy resource that can be considered re-
8 coverable under available technological performance
9 conditions as of the date of the enactment of this
10 section while considering land-use and environmental
11 siting constraints.

12 “(e) FACILITY TIERS.—

13 “(1) TIER 1 FACILITY.—The term ‘tier 1 facil-
14 ity’ means an electric generating facility using a
15 type of technology which accounts for less than 1
16 percent of annual domestic electricity production in
17 the preceding taxable year, as determined by the
18 Secretary on the basis of data reported by the En-
19 ergy Information Administration.

20 “(2) TIER 2 FACILITY.—The term ‘tier 2 facil-
21 ity’ means an electric generating facility using a
22 type of technology which accounts for at least 1 per-
23 cent but less than 2 percent of annual domestic elec-
24 tricity production in the preceding taxable year, as

1 determined by the Secretary on the basis of data re-
2 ported by the Energy Information Administration.

3 “(3) TIER 3 FACILITY.—The term ‘tier 3 facil-
4 ity’ means an electric generating facility using a
5 type of technology which accounts for at least 2 per-
6 cent but less than 3 percent of annual domestic elec-
7 tricity production in the preceding taxable year, as
8 determined by the Secretary on the basis of data re-
9 ported by the Energy Information Administration.

10 “(f) TRANSFER OF CREDIT BY CERTAIN PUBLIC EN-
11 TITIES.—Rules similar to the rules of subsection (e) of
12 section 48D shall apply for purposes of this section.

13 “(g) REGULATIONS.—

14 “(1) IN GENERAL.—Not later than 1 year after
15 the date of the enactment of this section, the Sec-
16 retary shall prescribe such regulations as may be
17 necessary or appropriate to carry out the purposes
18 of this section. Such regulations shall include a proc-
19 ess for making eligibility certifications described in
20 subsection (d)(1)(E).

21 “(2) CERTIFICATION.—The regulations devel-
22 oped under paragraph (1) shall include a certifi-
23 cation process under which the Secretary, in con-
24 sultation with the Secretary of Energy, determines

1 the eligibility of facilities for purposes of subsection
2 (d)(1).”.

3 (b) CREDIT ALLOWED AS PART OF GENERAL BUSI-
4 NESS CREDIT.—Section 38(b) of the Internal Revenue
5 Code of 1986 is amended by striking “plus” at the end
6 of paragraph (31), by striking the period at the end of
7 paragraph (32) and inserting “, plus”, and by adding at
8 the end the following new paragraph:

9 “(33) the emerging energy technology produc-
10 tion credit determined under section 45T(a).”.

11 (c) SPECIAL RULE FOR PROCEEDS OF TRANSFERS
12 FOR MUTUAL OR COOPERATIVE ELECTRIC COMPANIES.—
13 Section 501(c)(12)(I) of such Code, as amended by the
14 preceding provisions of this Act, is amended by striking
15 “or 48D(e)” and inserting “, 45T(f), or 48D(e)”.

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

“Sec. 45T. Electricity produced from emerging energy technology.”.

20 (e) EFFECTIVE DATE.—The amendments made by
21 this section shall apply to electricity produced and sold
22 in taxable years beginning after the date of the enactment
23 of this Act, at facilities placed in service after such date
24 of enactment.

1 SEC. 5. ENERGY CREDIT FOR ENERGY STORAGE TECH-
2 NOLOGIES.

3 (a) IN GENERAL.—Section 48(a)(2)(A)(i) of the In-
4 ternal Revenue Code of 1986 is amended by striking
5 “and” at the end of subclause (III) and by inserting after
6 subclause (IV) the following new subclause:

7 “(V) energy property described in
8 paragraph (3)(A)(viii), and”.

9 (b) ENERGY STORAGE TECHNOLOGIES.—Section
10 48(a)(3)(A) of such Code is amended by striking “or” at
11 the end of clause (vi), by adding “or” at the end of clause
12 (vii), and by adding at the end the following new clause:

13 “(viii) equipment which receives,
14 stores, and delivers energy using batteries,
15 compressed air, pumped hydropower, hy-
16 drogen storage (including hydrolysis), ther-
17 mal energy storage, regenerative fuel cells,
18 flywheels, capacitors, superconducting
19 magnets, or other technologies identified
20 by the Secretary, in consultation with the
21 Secretary of Energy,”.

22 (c) NATIONAL LIMITATION RELATING TO ENERGY
23 STORAGE PROPERTY.—Section 48(a)(5) of such Code is
24 amended by adding at the end the following new subpara-
25 graph:

1 “(F) NATIONAL LIMITATION RELATING TO
2 ENERGY STORAGE PROPERTY.—

3 “(i) IN GENERAL.—The amount of
4 credit which (but for this subsection)
5 would be allowed with respect to all equip-
6 ment described in subsection (a)(3)(A)(viii)
7 for any taxable year shall not exceed the
8 national megawatt capacity limitation for
9 energy storage property allocated to the
10 project of which such equipment is a part.

11 “(ii) AMOUNT OF NATIONAL CREDIT
12 LIMITATION.—

13 “(I) IN GENERAL.—The aggre-
14 gate amount of national megawatt ca-
15 pacity limitation allocated to projects
16 under clause (i) shall not exceed
17 20,000 megawatts.

18 “(II) LIMITATION ON LITHIUM
19 ION ELECTRIC STORAGE BAT-
20 TERIES.—The Secretary shall ensure
21 that not more than 15,000 megawatts
22 of the national megawatt capacity lim-
23 itation are allocated to projects for
24 lithium ion electric storage batteries,
25 in an effort to facilitate the deploy-

1 ment of a diverse suite of techno-
2 logical designs.

3 “(iii) ALLOCATION.—

4 “ (I) ESTABLISHMENT OF PRO-
5 GRAM.—Not later than 180 days after
6 the date of enactment of this subpara-
7 graph, the Secretary, in consultation
8 with the Secretary of Energy, shall
9 develop a process to allocate national
10 megawatt capacity limitation under
11 this subparagraph.

12 “(II) APPLICATIONS.—Each ap-
13 plicant for allocations under this sub-
14 paragraph shall submit an application
15 to the Secretary. The Secretary shall
16 issue a determination as whether an
17 applicant has been allocated national
18 megawatt capacity limitation not later
19 than 60 days after the date of the
20 submission of a completed application
21 under this subclause.

22 “(III) TIME LIMIT ON BEGIN-
23 NING AND COMPLETING CONSTRUC-
24 TION.—An allocation of national
25 megawatt capacity limitation under

1 this clause shall be void unless the
2 taxpayer begins construction of the
3 project not later than the date which
4 is 1 year after the date on which such
5 allocation is made and completes con-
6 struction of such project not later
7 than the date which 5 years after the
8 date on which such construction be-
9 gins.

10 “(IV) REALLOCATION OF UN-
11 USED LIMITATION.—The Secretary
12 shall reallocate national megawatt ca-
13 pacity limitation (and such realloca-
14 tion shall not be taken into account in
15 applying the limitation of clause
16 (ii)(I)) to the extent that any alloca-
17 tion is void under subclause (III) or to
18 the extent that the credit attributable
19 to such allocation is recaptured under
20 section 50(a).”.

21 (d) TRANSFER OF ENERGY STORAGE PROPERTY
22 CREDIT BY CERTAIN PUBLIC ENTITIES.—Section 48 of
23 such Code is amended by adding at the end the following
24 new subsection:

1 “(e) TRANSFER OF ENERGY STORAGE PROPERTY
2 CREDIT BY CERTAIN PUBLIC ENTITIES.—In the case of
3 any property described in subsection (a)(3)(A)(viii), rules
4 similar to the rules of subsection (e) of section 48D shall
5 apply for purposes of this section.”.

6 (e) EFFECTIVE DATE.—The amendments made by
7 this section shall apply to property placed in service in
8 taxable years beginning after the date of the enactment
9 of this Act, under rules similar to the rules of section
10 48(m) of the Internal Revenue Code of 1986 (as in effect
11 on the day before the date of the enactment of the Rev-
12 enue Reconciliation Act of 1990).

Æ