# Internal Revenue Code Section 48(e)

Energy credit

(a) Energy credit.

(1) In general.

For purposes of section 46 , except as provided in paragraphs (1)(B) , (2)(B) , and (3)(B) of subsection (c) , the energy credit for any taxable year is the energy percentage of the basis of each energy property placed in service during such taxable year.

(2) Energy percentage.

(A) In general. Except as provided in paragraphs (6) and (7) , the energy percentage is-

(i) 6 percent in the case of-

(I) qualified fuel cell property,

(II) energy property described in clause (i) or (iii) of paragraph (3)(A) but only with respect to property the construction of which begins before January 1, 2025,

(III) energy property described in paragraph (3)(A)(ii) ,

(IV) qualified small wind energy property,

(V) waste energy recovery property,

**Note:** Section 48(a)(2)(A)(i)(VI)-(IX), below, shall apply to property placed in service after December 31, 2022.

(VI) energy storage technology,

(VII) qualified biogas property,

(VIII) microgrid controllers, and

(IX) energy property described in clauses (v) and (vii) of paragraph (3)(A) , and

(ii) in the case of any energy property to which clause (i) does not apply, 2 percent.

(B) Coordination with rehabilitation credit. The energy percentage shall not apply to that portion of the basis of any property which is attributable to qualified rehabilitation expenditures.

(3) Energy property.

For purposes of this subpart, the term "energy property" means any property-

(A) which is-

(i) equipment which uses solar energy to generate electricity, to heat or cool (or provide hot water for use in) a structure, or to provide solar process heat, excepting property used to generate energy for the purposes of heating a swimming pool,

**Note:** Section 48(a)(3)(A)(ii), below, shall apply to property placed in service before 1/1/2023.

(ii) equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight but only with respect to property the construction of which begins before January 1, 2025,

**Note:** Section 48(a)(3)(A)(ii), below, shall apply to property placed in service after December 31, 2022.

(ii) equipment which uses solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight , or electrochromic glass which uses electricity to change its light transmittance properties in order to heat or cool a structure, but only with respect to property the construction of which begins before January 1, 2025,

(iii) equipment used to produce, distribute, or use energy derived from a geothermal deposit (within the meaning of section 613(e)(2) ), but only, in the case of electricity generated by geothermal power, up to (but not including) the electrical transmission stage,

(iv) qualified fuel cell property or qualified microturbine property,

(v) combined heat and power system property,

(vi) qualified small wind energy property,

(vii) equipment which uses the ground or ground water as a thermal energy source to heat a structure or as a thermal energy sink to cool a structure, but only with respect to property the construction of which begins before January 1, 2035,

**Note:** Section 48(a)(3)(A)(ix)-(xi), below, shall apply to property placed in service after December 31, 2022.

(viii) waste energy recovery property,

(ix) energy storage technology,

(x) qualified biogas property, or

(xi) microgrid controllers,

(B)

(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,

(C) with respect to which depreciation (or amortization in lieu of depreciation) is allowable, and

(D) which meets the performance and quality standards (if any) which-

(i) have been prescribed by the Secretary by regulations (after consultation with the Secretary of Energy), and

(ii) are in effect at the time of the acquisition of the property.

Such term shall not include any property which is part of a facility the production from which is allowed as a credit under section 45 for the taxable year or any prior taxable year.

(4) Special rule for property financed by tax-exempt bonds.
Rules similar to the rule under section 45(b)(3) shall apply for purposes of this section .

(5) Election to treat qualified facilities as energy property.

(A) In general. In the case of any qualified property which is part of a qualified investment credit facility-

(i) such property shall be treated as energy property for purposes of this section , and

(ii) the energy percentage with respect to such property shall be 6 percent.

(B) Denial of production credit. No credit shall be allowed under section 45 for any taxable year with respect to any qualified investment credit facility.

(C) Qualified investment credit facility. For purposes of this paragraph, the term "qualified investment credit facility" means any facility-

(i) which is a qualified facility (within the meaning of section 45 ) described in paragraph (1) , (2) , (3) , (4) , (6) , (7) , (9) , or (11) of section 45(d) ,

(ii) which is placed in service after 2008 and the construction of which begins before January 1, 2025, and

(iii) with respect to which-

(I) no credit has been allowed under section 45 , and

(II) the taxpayer makes an irrevocable election to have this paragraph apply.

(D) Qualified property. For purposes of this paragraph , the term "qualified property" means property-

(i) which is-

(I) tangible personal property, or

(II) other tangible property (not including a building or its structural components), but only if such property is used as an integral part of the qualified investment credit facility,

(ii) with respect to which depreciation (or amortization in lieu of depreciation) is allowable,

(iii) which is constructed, reconstructed, erected, or acquired by the taxpayer, and

(iv) the original use of which commences with the taxpayer.

(E) Phaseout of credit for wind facilities. In the case of any facility using wind to produce electricity which is placed in service before January 1, 2022, and treated as energy property by reason of this paragraph , the amount of the credit determined under this section (determined after the application of paragraphs (1) and (2) and without regard to this subparagraph) shall be reduced by-

(i) in the case of any facility the construction of which begins after December 31, 2016, and before January 1, 2018, 20 percent,

(ii) in the case of any facility the construction of which begins after December 31, 2017, and before January 1, 2019, 40 percent,

(iii) in the case of any facility the construction of which begins after December 31, 2018, and before January 1, 2020, 60 percent, and

(iv) in the case of any facility the construction of which begins after December 31, 2019, and before January 1, 2022, 40 percent.

(F) Qualified offshore wind facilities.

(i) In general. In the case of any qualified offshore wind facility, subparagraph (E) shall not apply.

(ii) Qualified offshore wind facility. For purposes of this subparagraph, the term "qualified offshore wind facility" means a qualified facility (within the meaning of section 45 ) described in paragraph (1) of section 45(d) (determined without regard to any date by which the construction of the facility is required to begin) which is located in the inland navigable waters of the United States or in the coastal waters of the United States.

(6) Phaseout for certain energy property.

In the case of any qualified fuel cell property, qualified small wind property, or energy property described in clause (i) or clause (ii) of paragraph (3)(A) the construction of

which begins after December 31, 2019, and which is placed in service before January 1, 2022, the energy percentage determined under paragraph (2) shall be equal to 26 percent.

(7) Phaseout for certain energy property.
In the case of any energy property described in clause (vii) of paragraph (3)(A), the energy percentage determined under paragraph (2) shall be equal to-

(A) in the case of any property the construction of which begins before January 1, 2033, and which is placed in service after December 31, 2021, 6 percent,

(B) in the case of any property the construction of which begins after December 31, 2032, and before January 1, 2034, 5.2 percent, and

(C) in the case of any property the construction of which begins after December 31, 2033, and before January 1, 2035, 4.4 percent.

**Note:** Section 48(a)(8), below, shall apply to property placed in service after December 31, 2022.

(8) Interconnection property.

(A) In general. For purposes of determining the credit under subsection (a) , energy property shall include amounts paid or incurred by the taxpayer for qualified interconnection property in connection with the installation of energy property (as defined in paragraph (3) ) which has a maximum net output of not greater than 5 megawatts (as measured in alternating current), to provide for the transmission or distribution of the electricity produced or stored by such property, and which are properly chargeable to the capital account of the taxpayer.

(B) Qualified interconnection property. The term "qualified interconnection property" means, with respect to an energy project which is not a microgrid controller, any tangible property-

(i) which is part of an addition, modification, or upgrade to a transmission or distribution system which is required at or beyond the point at which the energy project interconnects to such transmission or distribution system in order to accommodate such interconnection,

(ii) either-

(I) which is constructed, reconstructed, or erected by the taxpayer, or

(II) for which the cost with respect to the construction, reconstruction, or erection of such property is paid or incurred by such taxpayer, and

(iii) the original use of which, pursuant to an interconnection agreement, commences with a utility.

(C) Interconnection agreement. The term "interconnection agreement" means an agreement with a utility for the purposes of interconnecting the energy property owned by such taxpayer to the transmission or distribution system of such utility.

(D) Utility. For purposes of this paragraph, the term "utility" means the owner or operator of an electrical transmission or distribution system which is subject to the regulatory authority of a State or political subdivision thereof, any agency or instrumentality of the United States, a public service or public utility commission or other similar body of any State or political subdivision thereof, or the governing or ratemaking body of an electric cooperative.

(E) Special rule for interconnection property. In the case of expenses paid or incurred for interconnection property, amounts otherwise chargeable to capital account with respect to such expenses shall be reduced under rules similar to the rules of section 50(c) .

(9) Increased credit amount for energy projects.

(A) In general.

(i) Rule. In the case of any energy project which satisfies the requirements of subparagraph (B) , the amount of the credit determined under this subsection (determined after the application of paragraphs (1) through (8) and without regard to this clause ) shall be equal to such amount multiplied by 5.

**Note:** Section 48(a)(9)(A)(i), is generally effective for property placed in service after December 31, 2022 and for any property the construction of which begins prior to January 1, 2023, only to the extent of the basis thereof attributable to the construction, reconstruction, or erection after December 31, 2022.

(i) Rule. In the case of any energy project which satisfies the requirements of subparagraph (B) , the amount of the credit determined under this subsection (determined after the application of paragraphs (1) through (8) and paragraph (15) and without regard to this clause ) shall be equal to such amount multiplied by 5.

(ii) Energy project defined. For purposes of this subsection, the term "energy project" means a project consisting of one or more energy properties that are part of a single project.

(B) Project requirements. A project meets the requirements of this subparagraph if it is one of the following:

(i) A project with a maximum net output of less than 1 megawatt of electrical (as measured in alternating current) or thermal energy.

(ii) A project the construction of which begins before the date that is 60 days after the Secretary publishes guidance with respect to the requirements of paragraphs (10)(A) and (11) .

(iii) A project which satisfies the requirements of paragraphs (10)(A) and (11) .

(10) Prevailing wage requirements.

(A) In general. The requirements described in this subparagraph with respect to any energy project are that the taxpayer shall ensure that any laborers and mechanics employed by the taxpayer or any contractor or subcontractor in-

(i) the construction of such energy project, and

(ii) for the 5-year period beginning on the date such project is originally placed in service, the alteration or repair of such project, shall be paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality in which such project is located as most recently determined by the Secretary of Labor, in accordance with subchapter IV of chapter 31 of title 40, United States Code. Subject to subparagraph (C) , for purposes of any determination under paragraph (9)(A)(i) for the taxable year in which the energy project is placed in service, the taxpayer shall be deemed to satisfy the requirement under clause (ii) at the time such project is placed in service.

(B) Correction and penalty related to failure to satisfy wage requirements. Rules similar to the rules of section 45(b)(7)(B) shall apply.

(C) Recapture. The Secretary shall, by regulations or other guidance, provide for recapturing the benefit of any increase in the credit allowed under this subsection by reason of this paragraph with respect to any project which does not satisfy the requirements under subparagraph (A) (after application of subparagraph (B) ) for the period described in clause (ii) of subparagraph (A) (but which does not cease to be investment credit property within the meaning of section 50(a) ). The period and percentage of such recapture shall be determined under rules similar to the rules of section 50(a).

(11) Apprenticeship requirements.
Rules similar to the rules of section 45(b)(8) shall apply.

**Note:** Section (a)(12)-(14), below, shall apply to property placed in service after December 31, 2022.

(12) Domestic content bonus credit amount.

(A) In general. In the case of any energy project which satisfies the requirement under subparagraph (B) , for purposes of applying paragraph (2) with respect to such property, the energy percentage shall be increased by the applicable credit rate increase.

(B) Requirement. Rules similar to the rules of section 45(b)(9)(B) shall apply.

(C) Applicable credit rate increase. For purposes of subparagraph (A) , the applicable credit rate increase shall be-

(i) in the case of an energy project which does not satisfy the requirements of paragraph (9)(B) , 2 percentage points, and

(ii) in the case of an energy project which satisfies the requirements of paragraph (9)(B) , 10 percentage points.

(13) Phaseout for elective payment.
In the case of a taxpayer making an election under section 6417 with respect to a credit under this section, rules similar to the rules of section 45(b)(10) shall apply.

(14) Increase in credit rate for energy communities.

(A) In general. In the case of any energy project that is placed in service within an energy community (as defined in section 45(b)(11)(B), as applied by substituting "energy project" for "qualified facility" each place it appears), for purposes of applying paragraph (2) with respect to energy property which is part of such project, the energy percentage shall be increased by the applicable credit rate increase.

(B) Applicable credit rate increase. For purposes of subparagraph (A), the applicable credit rate increase shall be equal to-

(i) in the case of any energy project which does not satisfy the requirements of paragraph (9)(B), 2 percentage points, and

(ii) in the case of any energy project which satisfies the requirements of paragraph (9)(B), 10 percentage points.

**Note:** Section 48(a)(15)-(16), below, shall apply to property placed in service after December 31, 2022, and, for any property the construction of which begins prior to January 1, 2023, only to the extent of the basis thereof attributable to the construction, reconstruction, or erection after December 31, 2022.

(15) Election to treat clean hydrogen production facilities as energy property.

(A) In general. In the case of any qualified property (as defined in paragraph (5)(D)) which is part of a specified clean hydrogen production facility-

(i) such property shall be treated as energy property for purposes of this section, and

(ii) the energy percentage with respect to such property is-

(I) in the case of a facility which is designed and reasonably expected to produce qualified clean hydrogen which is described in a subparagraph (A) of section 45V(b)(2), 1.2 percent,

(II) in the case of a facility which is designed and reasonably expected to produce qualified clean hydrogen which is described in a subparagraph (B) of such section, 1.5 percent,

(III) in the case of a facility which is designed and reasonably expected to produce qualified clean hydrogen which is described in a subparagraph (C) of such section, 2 percent, and

(IV) in the case of a facility which is designed and reasonably expected to produce qualified clean hydrogen which is described in subparagraph (D) of such section, 6 percent.

(B) Denial of production credit. No credit shall be allowed under section 45V or section 45Q for any taxable year with respect to any specified clean hydrogen production facility or any carbon capture equipment included at such facility.

(C) Specified clean hydrogen production facility. For purposes of this paragraph, the term "specified clean hydrogen production facility" means any qualified clean hydrogen production facility (as defined in section 45V(c)(3))-

(i) which is placed in service after December 31, 2022,

(ii) with respect to which-

(I) no credit has been allowed under section 45V or 45Q, and

(II) the taxpayer makes an irrevocable election to have this paragraph apply, and

(iii) for which an unrelated third party has verified (in such form or manner as the Secretary may prescribe) that such facility produces hydrogen through a process which results in lifecycle greenhouse gas emissions which are consistent with the hydrogen that such facility was designed and expected to produce under subparagraph (A)(ii).

(D) Qualified clean hydrogen. For purposes of this paragraph, the term "qualified clean hydrogen" has the meaning given such term by section 45V(c)(2).

(E) Regulations. The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of this section, including regulations or other guidance which recaptures so much of any credit allowed under this section as exceeds the amount of the credit which would have been allowed if the expected production were consistent with the actual verified production (or all of the credit so allowed in the absence of such verification).

(16) Regulations and guidance.
The Secretary shall issue such regulations or other guidance as the Secretary determines necessary to carry out the purposes of this subsection, including regulations or other guidance which provides for requirements for recordkeeping or information reporting for purposes of administering the requirements of this subsection.

(b) Certain progress expenditure 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 date of the enactment of the Revenue Reconciliation Act of 1990) shall apply for purposes of subsection (a) .

(c) Definitions.
For purposes of this section -

(1) Qualified fuel cell property.

(A) In general. The term "qualified fuel cell property" means a fuel cell power plant which-

**Note:** Section 48(c)(1)(A)(i), below, shall apply to property placed in service before January 1, 2023.
(i) has a nameplate capacity of at least 0.5 kilowatt of electricity using an electrochemical process, and

**Note:** Section (c)(1)(A)(i), below, shall apply to property placed in service after December 31, 2022.
(i) has a nameplate capacity of at least 0.5 kilowatt (1 kilowatt in the case of a fuel cell power plant with a linear generator assembly) of electricity using an electrochemical or electromechanical process, and

(ii) has an electricity-only generation efficiency greater than 30 percent.

(B) Limitation. In the case of qualified fuel cell property placed in service during the taxable year, the credit otherwise determined under subsection (a) for such year with respect to such property shall not exceed an amount equal to $1,500 for each 0.5 kilowatt of capacity of such property.

**Note:** Section 48(c)(1)(C)-(D), below, shall apply to property placed in service before January 1, 2023.
(C) Fuel cell power plant. The term "fuel cell power plant" means an integrated system comprised of a fuel cell stack assembly and associated balance of plant components which converts a fuel into electricity using electrochemical means.

(D) Termination. The term "qualified fuel cell property" shall not include any property the construction of which does not begin before January 1, 2025.

**Note:** Section 48(c)(1)(C)-(E), below, applies to property placed in service after December 31, 2022.
(C) Fuel cell power plant. The term "fuel cell power plant" means an integrated system comprised of a fuel cell stack assembly , or linear generator assembly, and associated balance of plant components which converts a fuel into electricity using electrochemical or electromechanical means.

(D) Linear generator assembly. The term "linear generator assembly" does not include any assembly which contains rotating parts.

(E) Termination. The term "qualified fuel cell property" shall not include any property the construction of which does not begin before January 1, 2025.

(2) Qualified microturbine property.
(A) In general. The term "qualified microturbine property" means a stationary microturbine power plant which-
(i) has a nameplate capacity of less than 2,000 kilowatts, and

(ii) has an electricity-only generation efficiency of not less than 26 percent at International Standard Organization conditions.

(B) Limitation. In the case of qualified microturbine property placed in service during the taxable year, the credit otherwise determined under subsection (a) for such year with respect to such property shall not exceed an amount equal to $200 for each kilowatt of capacity of such property.

(C) Stationary microturbine power plant. The term "stationary microturbine power plant" means an integrated system comprised of a gas turbine engine, a combustor, a recuperator or regenerator, a generator or alternator, and associated balance of plant components which converts a fuel into electricity and thermal energy. Such term also includes all secondary components located between the existing infrastructure for fuel delivery and the existing infrastructure for power distribution, including equipment and controls for meeting relevant power standards, such as voltage, frequency, and power factors.

(D) Termination. The term "qualified microturbine property" shall not include any property the construction of which does not begin before January 1, 2025.

(3) Combined heat and power system property.

(A) Combined heat and power system property. The term "combined heat and power system property" means property comprising a system-

(i) which uses the same energy source for the simultaneous or sequential generation of electrical power, mechanical shaft power, or both, in combination with the generation of steam or other forms of useful thermal energy (including heating and cooling applications),

(ii) which produces-

(I) at least 20 percent of its total useful energy in the form of thermal energy which is not used to produce electrical or mechanical power (or combination thereof), and

(II) at least 20 percent of its total useful energy in the form of electrical or mechanical power (or combination thereof),

(iii) the energy efficiency percentage of which exceeds 60 percent, and

(iv) the construction of which begins before January 1, 2025.

(B) Limitation.

(i) In general. In the case of combined heat and power system property with an electrical capacity in excess of the applicable capacity placed in service during the taxable year, the credit under subsection (a)(1) (determined without regard to this paragraph ) for such year shall be equal to the amount which bears the same ratio to such credit as the applicable capacity bears to the capacity of such property.

(ii) Applicable capacity. For purposes of clause (i) , the term "applicable capacity" means 15 megawatts or a mechanical energy capacity of more than 20,000 horsepower or an equivalent combination of electrical and mechanical energy capacities.

(iii) Maximum capacity. The term "combined heat and power system property" shall not include any property comprising a system if such system has a capacity in excess of 50 megawatts or a mechanical energy capacity in excess of 67,000 horsepower or an equivalent combination of electrical and mechanical energy capacities.

(C) Special rules.

(i) Energy efficiency percentage. For purposes of this paragraph , the energy efficiency percentage of a system is the fraction-

(I) the numerator of which is the total useful electrical, thermal, and mechanical power produced by the system at normal operating rates, and expected to be consumed in its normal application, and

(II) the denominator of which is the lower heating value of the fuel sources for the system.

(ii) Determinations made on Btu basis. The energy efficiency percentage and the percentages under subparagraph (A)(ii) shall be determined on a Btu basis.

(iii) Input and output property not included. The term "combined heat and power system property" does not include property used to transport the energy source to the facility or to distribute energy produced by the facility.

(D) Systems using biomass. If a system is designed to use biomass (within the meaning of paragraphs (2) and (3) of section 45(c) without regard to the last sentence of paragraph (3)(A) ) for at least 90 percent of the energy source-

(i) subparagraph (A)(iii) shall not apply, but

(ii) the amount of credit determined under subsection (a) with respect to such system shall not exceed the amount which bears the same ratio to such amount of credit (determined without regard to this subparagraph ) as the energy efficiency percentage of such system bears to 60 percent.

(4) Qualified small wind energy property.

(A) In general. The term "qualified small wind energy property" means property which uses a qualifying small wind turbine to generate electricity.

(B) Qualifying small wind turbine. The term "qualifying small wind turbine" means a wind turbine which has a nameplate capacity of not more than 100 kilowatts.

(C) Termination. The term "qualified small wind energy property" shall not include any property the construction of which does not begin before January 1, 2025.

(5) Waste energy recovery property.

(A) In general. The term "waste energy recovery property" means property that generates electricity solely from heat from buildings or equipment if the primary purpose of such building or equipment is not the generation of electricity.

(B) Capacity limitation. The term "waste energy recovery property" shall not include any property which has a capacity in excess of 50 megawatts.

(C) No double benefit. Any waste energy recovery property (determined without regard to this subparagraph) which is part of a system which is a combined heat and power system property shall not be treated as waste energy recovery property for purposes of this section unless the taxpayer elects to not treat such system as a combined heat and power system property for purposes of this section.

(D) Termination. The term "waste energy recovery property" shall not include any property the construction of which does not begin before January 1, 2025.

**Note:** Section 48(c)(6)-(8), below, shall apply to property placed in service after December 31, 2022.

(6) Energy storage technology.

(A) In general. The term "energy storage technology" means-

(i) property (other than property primarily used in the transportation of goods or individuals and not for the production of electricity) which receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, which stores energy), and has a nameplate capacity of not less than 5 kilowatt hours, and

(ii) thermal energy storage property.

(B) Modifications of certain property. In the case of any property which either-

(i) was placed in service before the date of enactment of this section and would be described in subparagraph (A)(i) , except that such property has a capacity of less than 5 kilowatt hours and is modified in a manner that such property (after such modification) has a nameplate capacity of not less than 5 kilowatt hours, or

(ii) is described in subparagraph (A)(i) and is modified in a manner that such property (after such modification) has an increase in nameplate capacity of not less than 5 kilowatt hours,

such property shall be treated as described in subparagraph (A)(i) except that the basis of any existing property prior to such modification shall not be taken into account for purposes of this section. In the case of any property to which this subparagraph applies, subparagraph (D) shall be applied by substituting "modification" for "construction".

(C) Thermal energy storage property.

(i) In general. Subject to clause (ii), for purposes of this paragraph, the term "thermal energy storage property" means property comprising a system which-

(I) is directly connected to a heating, ventilation, or air conditioning system,

(II) removes heat from, or adds heat to, a storage medium for subsequent use, and

(III) provides energy for the heating or cooling of the interior of a residential or commercial building.

(ii) Exclusion. The term "thermal energy storage property" shall not include-

(I) a swimming pool,

(II) combined heat and power system property, or

(III) a building or its structural components.

(D) Termination. The term "energy storage technology" shall not include any property the construction of which begins after December 31, 2024.

(7) Qualified biogas property.

(A) In general. The term "qualified biogas property" means property comprising a system which-

(i) converts biomass (as defined in section 45K(c)(3) , as in effect on the date of enactment of this paragraph) into a gas which-

(I) consists of not less than 52 percent methane by volume, or

(II) is concentrated by such system into a gas which consists of not less than 52 percent methane, and

(ii) captures such gas for sale or productive use, and not for disposal via combustion.

(B) Inclusion of cleaning and conditioning property. The term "qualified biogas property" includes any property which is part of such system which cleans or conditions such gas.

(C) Termination. The term "qualified biogas property" shall not include any property the construction of which begins after December 31, 2024.

(8) Microgrid controller.

(A) In general. The term "microgrid controller" means equipment which is-

(i) part of a qualified microgrid, and

(ii) designed and used to monitor and control the energy resources and loads on such microgrid.

(B) Qualified microgrid. The term "qualified microgrid" means an electrical system which-

(i) includes equipment which is capable of generating not less than 4 kilowatts and not greater than 20 megawatts of electricity,

(ii) is capable of operating-

(I) in connection with the electrical grid and as a single controllable entity with respect to such grid, and

(II) independently (and disconnected) from such grid, and

(iii) is not part of a bulk-power system (as defined in section 215 of the Federal Power Act (16 U.S.C. 824o)).

(C) Termination. The term "microgrid controller" shall not include any property the construction of which begins after December 31, 2024.

(d) Coordination with Department of Treasury grants.
In the case of any property with respect to which the Secretary makes a grant under section 1603 of the American Recovery and Reinvestment Tax Act of 2009-

(1) Denial of production and investment credits.
No credit shall be determined under this section or section 45 with respect to such property for the taxable year in which such grant is made or any subsequent taxable year.

(2) Recapture of credits for progress expenditures made before grant.
If a credit was determined under this section with respect to such property for any taxable year ending before such grant is made-

(A) the tax imposed under subtitle A on the taxpayer for the taxable year in which such grant is made shall be increased by so much of such credit as was allowed under section 38 ,

(B) the general business carryforwards under section 39 shall be adjusted so as to recapture the portion of such credit which was not so allowed, and

(C) the amount of such grant shall be determined without regard to any reduction in the basis of such property by reason of such credit.

(3) Treatment of grants.
Any such grant -

(A) shall not be includible in the gross income or alternative minimum taxable income of the taxpayer, but

(B) shall be taken into account in determining the basis of the property to which such grant relates, except that the basis of such property shall be reduced under section 50(c) in the same manner as a credit allowed under subsection (a) .

**Note:** Section 48(e), below, is effective January 1, 2023.

(e) Special rules for certain solar and wind facilities placed in service in connection with low-income communities.

(1) In general.

In the case of any qualified solar and wind facility with respect to which the Secretary makes an allocation of environmental justice solar and wind capacity limitation under paragraph (4)-

(A) the energy percentage otherwise determined under paragraph (2) or (5) of subsection (a) with respect to any eligible property which is part of such facility shall be increased by-

(i) in the case of a facility described in subclause (I) of paragraph (2)(A)(iii) and not described in subclause (II) of such paragraph, 10 percentage points, and

(ii) in the case of a facility described in subclause (II) of paragraph (2)(A)(iii), 20 percentage points, and

(B) the increase in the credit determined under subsection (a) by reason of this subsection for any taxable year with respect to all property which is part of such facility shall not exceed the amount which bears the same ratio to the amount of such increase (determined without regard to this subparagraph) as-

(i) the environmental justice solar and wind capacity limitation allocated to such facility, bears to

(ii) the total megawatt nameplate capacity of such facility, as measured in direct current.

(2) Qualified solar and wind facility.

For purposes of this subsection-

(A) In general. The term "qualified solar and wind facility" means any facility-

(i) which generates electricity solely from property described in section 45(d)(1) or in clause (i) or (vi) of subsection (a)(3)(A),

(ii) which has a maximum net output of less than 5 megawatts (as measured in alternating current), and

(iii) which-

(I) is located in a low-income community (as defined in section 45D(e)) or on Indian land (as defined in section 2601(2) of the Energy Policy Act of 1992 (25 U.S.C. 3501(2))), or

(II) is part of a qualified low-income residential building project or a qualified low-income economic benefit project.

(B) Qualified low-income residential building project. A facility shall be treated as part of a qualified low-income residential building project if-

(i) such facility is installed on a residential rental building which participates in a covered housing program (as defined in section 41411(a) of the Violence Against Women Act of 1994 (34 U.S.C. 12491(a)(3)), a housing assistance program administered by the Department of Agriculture under title V of the Housing Act of 1949, a housing program administered by a tribally designated housing entity (as defined in section 4(22) of the Native American Housing Assistance and Self-Determination

Act of 1996 (25 U.S.C. 4103(22))) or such other affordable housing programs as the Secretary may provide, and

(ii) the financial benefits of the electricity produced by such facility are allocated equitably among the occupants of the dwelling units of such building.

(C) Qualified low-income economic benefit project. A facility shall be treated as part of a qualified low-income economic benefit project if at least 50 percent of the financial benefits of the electricity produced by such facility are provided to households with income of-

(i) less than 200 percent of the poverty line (as defined in section 36B(d)(3)(A)) applicable to a family of the size involved, or

(ii) less than 80 percent of area median gross income (as determined under section 142(d)(2)(B)).

(D) Financial benefit. For purposes of subparagraphs (B) and (C), electricity acquired at a below-market rate shall not fail to be taken into account as a financial benefit.

(3) Eligible property.

For purposes of this section, the term "eligible property" means energy property which-

(A) is part of a facility described in section 45(d)(1) for which an election was made under subsection (a)(5), or

(B) is described in clause (i) or (vi) of subsection (a)(3)(A), including energy storage technology (as described in subsection (a)(3)(A)(ix)) installed in connection with such energy property.

(4) Allocations.

(A) In general. Not later than 180 days after the date of enactment of this subsection, the Secretary shall establish a program to allocate amounts of environmental justice solar and wind capacity limitation to qualified solar and wind facilities. In establishing such program and to carry out the purposes of this subsection, the Secretary shall provide procedures to allow for an efficient allocation process, including, when determined appropriate, consideration of multiple projects in a single application if such projects will be placed in service by a single taxpayer.

(B) Limitation. The amount of environmental justice solar and wind capacity limitation allocated by the Secretary under subparagraph (A) during any calendar year shall not exceed the annual capacity limitation with respect to such year.

(C) Annual capacity limitation. For purposes of this paragraph, the term "annual capacity limitation" means 1.8 gigawatts of direct current capacity for each of calendar years 2023 and 2024, and zero thereafter.

(D) Carryover of unused limitation. If the annual capacity limitation for any calendar year exceeds the aggregate amount allocated for such year under this paragraph, such limitation for the succeeding calendar year shall be increased by the amount of such excess. No amount may be carried under the preceding sentence to any calendar year after 2024 except as provided in section 48E(h)(4)(D)(ii) .

(E) Placed in service deadline.

(i) In general. Paragraph (1) shall not apply with respect to any property which is placed in service after the date that is 4 years after the date of the allocation with respect to the facility of which such property is a part.

(ii) Application of carryover. Any amount of environmental justice solar and wind capacity limitation which expires under clause (i) during any calendar year shall be taken into account as an excess described in subparagraph (D) (or as an increase in such excess) for such calendar year, subject to the limitation imposed by the last sentence of such subparagraph.

(5) Recapture.

The Secretary shall, by regulations or other guidance, provide for recapturing the benefit of any increase in the credit allowed under subsection (a) by reason of this subsection with respect to any property which ceases to be property eligible for such increase (but which does not cease to be investment credit property within the meaning of section 50(a)). The period and percentage of such recapture shall be determined under rules similar to the rules of section 50(a). To the extent provided by the Secretary, such recapture may not apply with respect to any property if, within 12 months after the date the taxpayer becomes aware (or reasonably should have become aware) of such property ceasing to be property eligible for such increase, the eligibility of such property for such increase is restored. The preceding sentence shall not apply more than once with respect to any facility.