

**TECHNICAL EXPLANATION OF THE
“CLEAN ENERGY FOR AMERICA ACT,”
AS VOTED ON BY THE SENATE COMMITTEE
ON FINANCE ON MAY 26, 2021**

Prepared by the Staff
of the
JOINT COMMITTEE ON TAXATION



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INTRODUCTION

On May 26, 2021, the Senate Committee on Finance marked up the “Clean Energy for America Act.” This document,¹ prepared by the staff of the Joint Committee on Taxation, provides a description of that bill, as voted on by the Committee.

¹ This document may be cited as follows: Joint Committee on Taxation, *Technical Explanation of the “Clean Energy for America Act,” as voted on by the Senate Committee on Finance on May 26, 2021* (JCX-31-21), June 17, 2021. This document can also be found on the Joint Committee on Taxation website at www.jct.gov.

I. INCENTIVES FOR CLEAN ELECTRICITY

Summary of Present Law Clean Electricity and Certain Other Energy-Related Tax Incentives

The Internal Revenue Code contains a number of tax incentives to encourage zero or low carbon electricity production, including credits relating to renewable power, nuclear power, other forms of energy efficient power, as well as carbon oxide sequestration. The following tables provide summaries of these incentives.

Summary of Credit for Electricity Produced from Certain Renewable Resources		
Eligible Electricity Production Activity (sec. 45)¹	Credit Rate for 2021² (cents per kilowatt-hour)	Expiration³
Wind	2.5	January 1, 2022
Closed-loop biomass	2.5	January 1, 2022
Open-loop biomass	1.3	January 1, 2022
Geothermal	2.5	January 1, 2022
Municipal solid waste (including landfill gas facilities and trash combustion facilities)	1.3	January 1, 2022
Qualified hydropower	1.3	January 1, 2022
Marine and hydrokinetic	1.3	January 1, 2022

¹ Except where otherwise provided, all section references are to the Internal Revenue Code of 1986, as amended (the “Code”).

² Credit rates are adjusted annually for inflation. See 86 Fed. Reg. 22300, April 27, 2021. In general, the credit is available for electricity produced during the first 10 years after a facility has been placed in service. Taxpayers may also elect to get a 30-percent investment tax credit in lieu of this production tax credit. In the case of wind facilities, the available production tax credit or investment tax credit is reduced by 20 percent for facilities the construction of which began in 2017, by 40 percent for facilities the construction of which began in 2018, by 60 percent for facilities the construction of which began in 2019, and by 40 percent for facilities the construction of which began after 2019.

³ Expires for property the construction of which begins after this date.

**Summary of Investment Tax Credits for Energy Property and
Personal Credit for Residential Energy Efficient Property**

Qualified Energy Property (sec. 48)	Credit Rate	Maximum Credit	Expiration⁴
Equipment to produce energy from a geothermal deposit	30% (in lieu of production tax credit)	None	January 1, 2022
	10%	None	None
Equipment to use ground or ground water for heating or cooling	10%	None	January 1, 2024
Equipment that uses fiber-optics to distribute sunlight inside a structure	30%	None	January 1, 2020
	26%		January 1, 2023
	22%		January 1, 2024
Microturbine property (< 2 megawatt electrical generation power plants of $\geq 26\%$ efficiency)	10%	\$200 per kilowatt of capacity	January 1, 2024
Combined heat and power property (simultaneous production of electrical/mechanical power and useful heat > 60% efficiency)	10%	None	January 1, 2024
Solar electric or solar hot water property	30%	None	January 1, 2020
	26%		January 1, 2023
	22%		January 1, 2024
	10%		None
Fuel cell property (generates electricity through electrochemical process)	30%	\$1,500 for each $\frac{1}{2}$ kilowatt of capacity	January 1, 2020
	26%		January 1, 2023
	22%		January 1, 2024
Small (< 100 kilowatt capacity) wind electrical generation property	30%	None	January 1, 2020
	26%		January 1, 2023

**Summary of Investment Tax Credits for Energy Property and
Personal Credit for Residential Energy Efficient Property (cont'd)**

Qualified Energy Property (sec. 48)	Credit Rate	Maximum Credit	Expiration⁴
Waste energy recovery property	26%	None	January 1, 2023
	22%		January 1, 2024
Wind, biomass, municipal solid waste, qualified hydropower, and marine and hydrokinetic property	30% (in lieu of production tax credit)	None	January 1, 2022 January 1, 2026, in the case of offshore wind facilities ⁵
Credit for residential energy efficient property (sec. 25D)	30%	\$500 per ½ kilowatt of capacity for fuel cells	December 31, 2019 ⁶
Personal credit for residential solar water heating or solar electric property, fuel cell, small wind property, geothermal heat pump property, qualified biomass fuel property (wood/pellet stoves)	26%		December 31, 2022
	22%		December 31, 2023

⁴ For all eligible property, construction of the property must begin before the expiration date, except where otherwise noted. For credits subject to a rate phase down, except where noted, construction must begin before the dates listed and placed in service before January 1, 2026.

⁵ In the case of wind facilities other than offshore wind facilities, the available investment tax credit is reduced by 20 percent for facilities the construction of which begins in 2017, by 40 percent for facilities the construction of which begins in 2018, by 60 percent for facilities the construction of which begins in 2019, and by 40 percent for facilities the construction of which begins after 2019.

⁶ Residential energy efficient property must be placed in service by the dates listed in order to be eligible for a credit.

Summary of Certain Non-Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Five-year cost recovery for certain energy property (secs. 168(e)(3)(B)(vi) and 48(a)(3)(A))</p>	<ul style="list-style-type: none"> • A five-year Modified Accelerated Cost Recovery System (“MACRS”) recovery period is generally provided for equipment using solar and wind energy to generate electricity (<i>e.g.</i>, solar panels), to heat or cool (or provide hot water for use in) a structure, or to provide solar (or wind) process heat; equipment using solar energy to illuminate the inside of a structure using fiber-optic distributed sunlight; equipment used to produce, distribute, or use energy derived from a geothermal deposit; qualified fuel cell or microturbine property; combined heat and power system property; equipment using the ground or ground water as a thermal energy source (or sink) to heat (or cool) a structure; and waste energy recovery property • A five-year MACRS recovery period is also provided for certain small power production biomass facilities (<i>i.e.</i>, a qualifying small power production facility within the meaning of section 3(17)(C) of the Federal Power Act (16 U.S.C. 796 (17)(C)), as in effect on September 1, 1986, that also qualifies as certain biomass property, including (i) a boiler, the primary fuel for which will be an alternate substance; (ii) a burner (including necessary on-site equipment to bring the alternate substance to the burner) for a combustor other than a boiler if the primary fuel for such burner will be an alternate substance; (iii) equipment for converting an alternate substance into a qualified fuel; (iv) certain pollution control equipment; and (v) equipment used for the unloading, transfer, storage, reclaiming from storage, and preparation (including, but not limited to, washing, crushing, drying, and weighing) at the point of use of an alternative substance for use in equipment described in (i), (ii) or (iii)) 	<p>January 1, 2024, for all property except for solar and wind energy property</p>

Summary of Credits Relating to Nuclear Power and Carbon Oxide Sequestration

Eligible Activity	Description	Credit Amount	Expiration
Advanced nuclear power production credit (sec. 45J)	<ul style="list-style-type: none"> • Credit for production of nuclear power from new facilities that use modern designs and have received an allocation from the Secretary • Secretary may allocate up to 6,000 megawatts of credit-eligible capacity 	<ul style="list-style-type: none"> • 1.8 cents per kilowatt-hour for the eight-year period starting when the facility was placed in service. • Not inflation adjusted. 	None
Carbon oxide sequestration credit (sec. 45Q)	<ul style="list-style-type: none"> • Credit for the sequestration of carbon oxides captured at qualified U.S. facilities • Sequestered carbon oxides can be captured from either industrial sources or directly from the ambient air, within the U.S. • The credit amount varies depending on the method by which captured carbon oxides are sequestered (geologic storage versus use commercially or as a tertiary injectant) 	<ul style="list-style-type: none"> • In 2021, the credit amount is \$22.68 per metric ton of carbon dioxide captured and used as a tertiary injectant for fossil fuel extraction or utilized for certain other commercial purposes. • In 2021, the credit amount is \$34.81 per metric ton of carbon dioxide captured and sequestered in secure geological storage. • The credit period is the 12-year period beginning on the date the carbon capture equipment was originally placed in service 	January 1, 2026 ⁷

⁷ Carbon capture equipment must be placed in service at a qualified facility the construction of which begins at that date.

**A. Clean Electricity Production Credit
(sec. 101 of the bill and new sec. 45U of the Code)**

Explanation of Provision

In general

The provision creates a 1.5 cent per kilowatt-hour production tax credit for electricity produced by the taxpayer at a qualified facility and sold to an unrelated person during the taxable year. The credit is also available where such electricity is consumed or stored by the taxpayer during the taxable year and there is no third-party sale, but only if the qualified facility is equipped with a metering device owned and operated by an unrelated person. The credit is available for electricity produced during the 10-year period beginning when the qualified facility is originally placed in service.

The credit rate may be increased under the three rules described below. Each of those enhancements increases the credit rate by 10 percent. Thus, with one enhancement, the credit rate is increased to 1.65 cents per kilowatt-hour, with two enhancements, the rate is 1.8 cents per kilowatt-hour, and with three enhancement, the rate is 1.95 cents per kilowatt hour.

The credit rate is also adjusted for inflation and subject to the phase-out rule described below.

Enhanced credit for facilities that use nascent clean energy technologies

The clean electricity production tax credit is increased by 10 percent for nascent clean energy technologies. A nascent clean energy technology is any technology or method used for the production of electricity which achieved a market penetration level of less than 3 percent of the national electricity market during the calendar year preceding the calendar year in which construction of the qualified facility began.

Enhanced credit for facilities located in energy communities

The clean electricity production tax credit rate is increased by 10 percent with respect to facilities located in an “energy community.” An energy community is defined as: (1) a census tract (or immediately adjacent tract) in which at least five percent of employment is within the oil and gas sector; (2) a census tract (or immediately adjacent tract) in which, in the period since 1999, a coal mine has closed, or, in the period since 2009, a coal-fueled power plant has retired; or (3) a census tract (or immediately adjacent tract) wherein an industrial facility is located that is mandated to report CO₂e emissions under the Environmental Protection Agency’s Greenhouse Gas Reporting Program.

Enhanced credit for facilities that meet domestic content requirements

The clean electricity production tax credit rate is increased by 10 percent with respect to facilities which certify that the steel, iron, and manufactured products used in such facility were produced in the United States. For purposes of steel and iron, this requirement shall be applied consistent with section 661.5(b) of title 49, Code of Federal Regulations. In the case of

manufactured products, the manufactured product shall be considered manufactured in the United States if the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product. This rule shall be applied in a manner consistent with the obligations of the United States under any international agreements.

Qualified facilities

A qualified facility is a facility: (1) which is used for the generation of electricity, (2) which is originally placed in service after December 31, 2022, (3) for which the greenhouse gas emissions rate is not greater than zero, and (4) in the case of any facility with a maximum output equal to or greater than one megawatt, which meets certain wage and workforce requirements (described below).

A qualified facility includes a facility placed in service before January 1, 2023, but only to the extent of the increased amount of electricity produced at the facility by reason of either a new power unit placed in service after December 31, 2022, or any efficiency improvements or additions of capacity placed in service after December 31, 2022. A qualified facility does not include any facility for which a credit determined under sections 45, 45J, 45Q, 48, or the new clean electricity investment credit (described in a later portion of this document) is allowed for the taxable year or any prior taxable year.²

Greenhouse gas emissions rate

The greenhouse gas emissions rate means the amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity, expressed as grams of carbon dioxide equivalents per kilowatt-hour (“CO₂e per KWh”; see definitions below for how this is measured). In the case of a facility which produces electricity through combustion or gasification, the greenhouse gas emissions rate for such facility shall be equal to the net rate of greenhouse gasses emitted into the atmosphere by such facility (taking into account lifecycle greenhouse gas emissions, as described in section 211(o)(1)(H) of the Clean Air Act) in the production of electricity, expressed as grams of CO₂e per KWh.

The provision directs the Secretary and the Administrator of the Environmental Protection Agency (“EPA”) to establish greenhouse gas emissions rates for types or categories of facilities, for use by taxpayers to determine whether a facility qualifies. The Secretary is directed to publish annually a table that sets forth the greenhouse gas emissions rates for similar types or categories of facilities.³

In the case of any facility for which an emissions rate has not been established by the Secretary, a taxpayer which owns such a facility may file a petition with the Secretary for a

² In the case of a facility that qualifies under both section 45 and new section 45U, the taxpayer may elect which provision under which the facility will qualify.

³ Thus, for example, the table might indicate that wind turbines, solar panels, and nuclear power generators comprise zero emissions facilities but natural gas power plants do not.

determination of the emissions rate with respect to such facility. In the case of such a petition, the Secretary and the EPA Administrator shall not later than 12 months after its filing provide a provisional emissions rate for such facility and not later than 24 months after its filing establish the emissions rate for such facility.

The amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity shall not include any qualified carbon dioxide that is captured by the taxpayer and sequestered in secure geological storage under rules similar to the rules applicable under section 45Q(f) or utilized by the taxpayer in a manner described in section 45Q(f)(5).⁴

Wage and workforce requirements

In the case of any qualified facility with a maximum output equal to or greater than one megawatt, the taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction, alteration, or repair of such facility prior to it being placed in service or during the 10-year credit period are paid wages at a rate not less than the prevailing wage 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.

A facility is not a qualifying facility unless this prevailing wage requirement is met during the facility's construction, before it is placed in service. However, a taxpayer may bring a facility into compliance, and have the facility qualify, by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must pay a penalty to the IRS equal to \$5,000 per affected worker.

Once a qualifying facility has been placed in service, a taxpayer that does not meet the prevailing wage requirements associated with the alteration or repair of such facility is ineligible for any production credits for energy or fuel produced during the taxable year of noncompliance. A taxpayer may bring the facility into compliance by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in Title V of the bill) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

⁴ In this way, a coal or natural gas power plant could be treated as having an emissions rate of not greater than zero if such plant sequestered its carbon dioxide emissions.

Other credit rate adjustments and phase-out

Credit reduced for grants, tax-exempt bonds, subsidized energy financing, and other credits

The amount of the credits with respect to any qualified facility for any taxable year shall be reduced in a manner similar to the reduction applied under section 45(b)(3)(relating to credit reductions for grants, tax-exempt bonds, subsidized energy financing, and other credits).

Inflation adjustment

In the case of a calendar year beginning after 2021, the 1.5 cent credit rate is adjusted annually for inflation, rounded to the nearest multiple of 0.1 cents. This annual inflation adjustment shall be determined and published by the Secretary not later than April 1 of each calendar year. The inflation adjustment shall be calculated using an inflation adjustment factor defined with respect to a calendar year as a fraction the numerator of which is the GDP implicit price deflator for the preceding calendar year and the denominator of which is the GDP implicit price deflator for the calendar year 1992. The term “GDP implicit price deflator” means the most recent revision of the implicit price deflator for the gross domestic product as computed and published by the Department of Commerce before March 15 of the calendar year.

Phase-out

After the first occasion on which the Secretary, the Secretary of Energy, and the EPA Administrator determine that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2021, the amount of the clean electricity production credit for any qualified facility is reduced according to the following schedule: by 25 percent for a facility the construction of which begins during the second calendar year following the determination, by 50 percent for a facility the construction of which begins during the third calendar year following the determination, and by 100 percent for facilities the construction of which begins during any subsequent calendar year.⁵

Definitions

For purposes of the provision, the CO₂e per kWh equals, with respect to any greenhouse gas, the equivalent carbon dioxide (as determined based on global warming potential) per kilowatt hour of electricity produced. The term “greenhouse gas” has the same meaning given such term under section 211(o)(1)(G) of the Clean Air Act, as in effect on the date of the enactment of the provision. The term “qualified carbon dioxide” means carbon dioxide captured from an industrial source which would otherwise be released into the atmosphere as industrial emission of greenhouse gas, is measured at the source of capture and verified at the point of

⁵ For example, if annual greenhouse gas emissions from the production of electricity in the United States are first at or drop below 25 percent of such 2021 emissions in the year 2042, the credit is reduced by 25 percent, 50 percent, and 100 percent for facilities the construction of which begin during 2044, 2045, and 2046 and later, respectively.

disposal or utilization, and is captured and disposed of or utilized within the United States (within the meaning of section 638(1)) or a possession of the United States (within the meaning of section 638(2)).

Final guidance

Not later than January 1, 2023, the Secretary and the EPA Administrator shall issue final guidance regarding implementation of this provision, including calculation of greenhouse gas emission rates for qualified facilities and determination of clean electricity production credits.

Special rules

Electricity eligible for this credit must be produced in the United States (within the meaning of section 638(1)) or a possession of the United States (within the meaning of section 638(2)).

In the case of combined heat and power system property (as defined in section 48(c)(3), without regard to subparagraphs (A)(iv), (B), and (D) thereof), the kilowatt-hours of electricity produced by the taxpayer at a qualified facility shall include any production in the form of useful thermal energy by any combined heat and power system property within such facility, and the amount of greenhouse gases emitted into the atmosphere by such facility in the production of such useful thermal energy shall be included for purposes of determining the greenhouse gas emissions rate for such facility. In applying this rule, the amount of kilowatt-hours of electricity produced in the form of useful thermal energy equals the total useful thermal energy produced by the combined heat and power system property within the qualified facility divided by the heat rate for such facility. For this purpose, the heat rate means the amount of energy used by the qualified facility to generate one kilowatt-hour of electricity, expressed as British thermal units per net kilowatt-hour generated.

In the case of a qualified facility in which more than one person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility.

Persons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling electricity to an unrelated person if such electricity is sold to such a person by another member of such group.

In the case of estates and trusts, rules similar to the rules of section 52(d) shall apply. In the case of agricultural cooperatives, rules similar to the rules of section 45(e)(11) shall apply.

Election for direct payment

Taxpayers may elect to have the tax credits otherwise allowed under this provision be treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such an election is irrevocable and

must be made prior to the date on which the qualified facility is placed in service in such manner as the Secretary may prescribe. Such payments would be in lieu of any tax credits determined under the provision.

Tax-exempt entities, real estate investment trusts, rural electric cooperatives, and utilities owned by State, local, tribal governments can elect and receive direct payments.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term "excessive amount" means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Phased domestic content requirement

With respect to facilities that do not meet domestic content requirements that give rise to an enhanced credit (described above), the election for direct payment shall be limited to 90 percent of the otherwise allowable credit value for facilities the construction of which begins in calendar year 2024, to 85 percent of the otherwise allowable credit value for facilities the construction of which begins in calendar year 2025, and to zero percent of the credit value for facilities the construction of which begins in any subsequent calendar year.

A facility failing to meet the domestic content requirements will not have its credit rate reduced if the Secretary determines that, with respect to the construction of such qualified facility, (1) the application of the domestic content requirements would be inconsistent with the public interest, (2) the materials and products necessary to build the facility are not produced in the United States in sufficient and reasonably available quantities of a satisfactory quality, or (3) the inclusion of domestic material will increase the construction costs of the qualified facility by more than 25 percent.

Effective Date

The provision is effective for facilities placed in service after December 31, 2022.

B. Clean Electricity Investment Credit

1. Clean electricity business investment credit (sec. 102(a) of the bill and new sec. 48D of the Code)

Explanation of Provision

In general

The provision creates a 30 percent investment credit for qualified investments with respect to any qualified facility and any grid improvement property. In the case of a qualified facility that is a microgrid, the credit is equal to 30 percent of the qualified investment multiplied by the relative avoided emissions rate with respect to such microgrid.

Enhanced credit for qualified investments located in disadvantaged or energy communities

The clean electricity investment credit rate is increased by 10 percentage points for qualified investments located in certain disadvantaged or energy communities. In the case of a disadvantaged community (or an energy community that is also a disadvantaged community), the qualified investment must have a maximum output of less than 5 megawatts and not generate electricity using combustion or gasification. In the case of an energy community not located in a disadvantage community, any qualified investment is eligible for the enhanced credit.

For this purpose, a disadvantaged community has the same meaning given the term “low-income community” in section 45D(e)(1), substituting 60 percent for 80 percent where it appears in subparagraph (B) thereof. An energy community is defined as: (1) a census tract (or immediately adjacent tract) in which at least five percent of employment is within the oil and gas sector; (2) a census tract (or immediately adjacent tract) in which, in the period since 1999, a coal mine has closed, or, in the period since 2009, a coal-fueled power plant has retired; or (3) a census tract (or immediately adjacent tract) wherein an industrial facility is located that is mandated to report CO₂e emissions under the Environmental Protection Agency’s Greenhouse Gas Reporting Program.

Enhanced credit for qualified investments in nascent clean energy technologies

The clean electricity investment credit rate is increased by 10 percentage points for qualified investments in nascent clean energy technologies. A nascent clean energy technology is any technology or method used for the production of electricity which achieved a market penetration level of less than 3 percent of the national electricity market during the calendar year preceding the calendar year in which construction of the qualified facility began.

Enhanced credit for investments that meet domestic content requirements

The clean electricity investment credit rate is increased by 10 percentage points with respect to property certified by the taxpayer to be composed of steel, iron, or manufactured products produced in the United States. For purposes of steel and iron, this requirement shall be applied consistent with section 661.5(b) of title 49, Code of Federal Regulations. In the case of manufactured products, the manufactured product shall be considered manufactured in the

United States if the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product. This rule shall be applied in a manner consistent with the United States' obligations under international agreements.

Maximum credit rate

The maximum credit rate is limited to 50 percent regardless of domestic content, location of the project, or development of nascent technologies

Qualified investments and qualified property

Under the provision, the qualified investment with respect to any qualified facility for any taxable year is the basis of any qualified property placed in service by the taxpayer during such taxable year which is part of a qualified facility. In addition, qualified investments include the amount of any expenditures paid or incurred by the taxpayer and properly chargeable to the taxpayer's capital account for qualified interconnection property in connection with a facility that was placed in service during the taxable year of the taxpayer and which has a maximum net output of no more than 5 megawatts.

Qualified property is tangible personal property or other property (not including a building or its structural components), but only if such property is used as an integral part of the qualified facility, with respect to which depreciation (or amortization in lieu of depreciation) is allowable, which is constructed, reconstructed, erected, or acquired by the taxpayer, and the original use of which commences with the taxpayer.

A qualified facility is a facility: (1) which is used for the generation of electricity, (2) which is originally placed in service after December 31, 2022, (3) for which the greenhouse gas emissions rate is not greater than zero, and (4) in the case of any facility with a maximum output equal to or greater than one megawatt meets certain wage and workforce requirements (described below). A qualified facility does not include any facility for which a credit determined under sections 45, 45J, 45Q, 48, or the proposed clean electricity production credit (described above) is allowed for the taxable year or any prior taxable year.

Qualified interconnection property means, with respect to a qualified facility that is not a microgrid, any tangible property which is part of an addition, modification, or upgrade to a transmission system which is required at or beyond the point at which the qualified facility interconnects to such transmission system in order to accommodate such interconnection. Such property must be constructed, reconstructed, or erected by the taxpayer or at the taxpayer's expense and the original use of which, pursuant to an interconnection agreement, must commence with a utility. The term "interconnection agreement" means an agreement entered into by a utility and the taxpayer for the purposes of interconnecting the qualified facility owned by such taxpayer to the transmission system of such utility. A transmission system is composed of the facilities owned, controlled, or operated by a utility which are used to provide electric transmission services. For this purpose, a utility is the owner or operator of an electrical transmission or distribution system which is subject to the regulatory authority of the Federal

Energy Regulatory Commission or a State public utility commission or other appropriate State agency.

The qualified investment with respect to any qualified facility for any taxable year shall not include that portion of the basis of any property which is attributable to qualified rehabilitation expenditures (as defined in section 47(c)(2)).

Greenhouse gas emissions rate

The greenhouse gas emissions rate means the amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity, expressed as grams of CO₂e per KWh. In the case of a facility which produces electricity through combustion or gasification, the greenhouse gas emissions rate for such facility shall be equal to the net rate of greenhouse gasses emitted into the atmosphere by such facility (taking into account lifecycle greenhouse gas emissions, as described in section 211(o)(1)(H) of the Clean Air Act) in the production of electricity, expressed as grams of CO₂e per KWh.

The provision directs the Secretary and the EPA Administrator to establish greenhouse gas emissions rates for types or categories of facilities, for use by taxpayers to determine whether a facility qualifies. The Secretary is directed to publish annually a table that sets forth the greenhouse gas emissions rates for similar types or categories of facilities.

In the case of any facility for which an emissions rate has not been established by the Secretary, a taxpayer which owns such a facility may file a petition with the Secretary for a determination of the emissions rate with respect to such facility. In the case of such a petition, the Secretary and EPA Administrator shall not later than 12 months after its filing provide a provisional emissions rate for such facility and not later than 24 months after its filing establish the emissions rate for such facility.

The amount of greenhouse gases emitted into the atmosphere by a facility in the production of electricity shall not include any qualified carbon dioxide that is captured by the taxpayer and sequestered in secure geological storage under rules similar to the rules applicable under section 45Q(f) or utilized by the taxpayer in a manner described in section 45Q(f)(5).

Wage and workforce requirements

In the case of any qualified facility with a maximum output equal to or greater than one megawatt, the taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction, alteration, or repair of such facility are paid wages at a rate not less than the prevailing wage 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. The prevailing wage requirement applies to the construction of the facility and to alteration or repair of the facility until the date that is five years after the date on which the facility was originally placed in service.

In the case of any applicable investment tax credit, a facility is not a qualifying facility unless the prevailing wage requirements are met during construction, before such property is placed in service. However, a taxpayer may bring the facility into compliance, and have the

facility qualify, by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

Once a qualifying facility has been placed in service, if it does not meet prevailing wage requirements associated with any alterations or repairs, the property comprising such facility shall be treated as disposed of under the rules of section 50(a)(1). A taxpayer may bring the facility into compliance by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in Title V of the bill) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

Microgrids

For purposes of this provision, the term “microgrid” means an interconnected system of distributed energy resources used for the generation of electricity which (1) is contained within a clearly defined electrical boundary and has the ability to operate as a single and controllable entity, (2) has the ability to be managed and isolated from the applicable grid region in order to withstand larger disturbances, and (3) has a maximum net output of no more than 20 megawatts. An applicable grid region means a set of power plants and transmission lines which are under the control of a single grid operator and interconnected to the microgrid.

A microgrid’s relative avoided emissions rate is the quotient of (1) the non-baseload output emissions rate for the applicable grid region minus the greenhouse gas emissions rate for the microgrid, divided by (2) the non-baseload output emissions rate for the applicable grid region. The non-baseload output emissions rate is the amount of greenhouse gases emitted into the atmosphere by the applicable grid region for the production of electricity (expressed as grams of CO₂e per KWh) above baseload.⁶ For purpose of the provision, the term “baseload” means the amount of electricity demand required on a continuous basis for the applicable grid region. The non-baseload output emissions rate and the baseload demand for any applicable grid region shall be determined by the Secretary and the EPA Administrator.

Grid improvement property

The qualified investment with respect to grid improvement property for any taxable year is the basis of any grid improvement property placed in service by the taxpayer during such taxable year. For this purpose, the term “grid improvement property” means any energy storage

⁶ For example, let X be the non-baseload output emissions rate for the applicable grid region. If a microgrid has a greenhouse gas emission rate that is $\frac{1}{4}$ of the non-baseload output emissions rate for the applicable grid region, the relative avoided emissions rate is $(X - \frac{1}{4} X)/X = \frac{3}{4}$. The applicable investment credit rate for this microgrid would then be 30 percent * $\frac{3}{4} = 22.5$ percent.

property or qualified transmission property which satisfies the wage and workforce requirements described above and which is depreciable property, built or acquired by the taxpayer, the original use of which commences with the taxpayer.

Energy storage property is property (1) which receives, stores, and delivers electricity, or energy for conversion to electricity, provided that such electricity is sold to or stored for an unrelated person by the taxpayer, (2) which has a capacity of not less than five kilowatt-hours, and (3) which is placed in service after December 31, 2021.

Qualified transmission property is (1) any overhead, submarine, or underground transmission property which is capable of transmitting electricity at a voltage of not less than 275 kilovolts, and (2) any other equipment necessary for the operation of such property, including equipment listed as a “transmission plant” in the Uniform System of Account for the Federal Energy Regulatory Commission. Such property does not include any property used for the distribution of electricity between substations and end-use customers.

Special rules

Progress expenditures

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) apply.

Subsidized financing

Rules similar to the rules of section 48(a)(4) shall apply for purposes of this section.

Credit phase-out

If the Secretary and EPA Administrator determine that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2021, the amount of the credit is reduced according to the following schedule: by 25 percent for a facility the construction of which begins during the second calendar year following the determination, by 50 percent for a facility the construction of which begins during the third calendar year following the determination, and by 100 percent for facilities the construction of which begins during any subsequent calendar year.

Definitions

For purposes of the provision, the term CO₂e per kWh means, with respect to any greenhouse gas, the equivalent carbon dioxide (as determined based on global warming potential) per kilowatt hour of electricity produced. The term “greenhouse gas” has the same meaning given such term under section 211(o)(1)(G) of the Clean Air Act, as in effect on the date of the enactment of the provision. The term “qualified carbon dioxide” means carbon dioxide captured from an industrial source which would otherwise be released into the atmosphere as industrial emission of greenhouse gas, is measured at the source of capture and verified at the point of disposal or utilization, and is captured and disposed of or utilized within

the United States (within the meaning of section 638(1)) or a possession of the United States (within the meaning of section 638(2)).

Recapture of credit

For purposes of section 50, if the Secretary and the EPA Administrator determine that the greenhouse gas emissions rate for a qualified facility is significantly higher than the anticipated greenhouse gas emissions rate claimed by the taxpayer for purposes of the clean electricity investment credit, the facility or equipment shall cease to be investment credit property in the taxable year in which the determination is made.

Final guidance

Not later than January 1, 2023, the Secretary and the EPA Administrator shall issue final guidance regarding implementation of this provision.

Election for direct payment

Taxpayers may elect to have the tax credits otherwise allowed under this provision be treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such an election is irrevocable and must be made prior to the date on which the qualified facility is placed in service in such manner as the Secretary may prescribe. Such payments would be in lieu of any tax credits determined under the provision.

Tax-exempt entities, real estate investment trusts, rural electric cooperatives, and utilities owned by State, local, tribal governments can elect and receive direct payments.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term "excessive amount" means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Phased domestic content requirement

With respect to facilities that do not meet domestic content requirements that give rise to an enhanced credit (described above), the election for direct payment shall be limited to 90

percent of the otherwise allowable credit value for facilities the construction of which begins in calendar year 2024, to 85 percent of the otherwise allowable credit value for facilities the construction of which begins in calendar year 2025, and to zero percent of the credit value for facilities the construction of which begins in any subsequent calendar year.

A facility failing to meet the domestic content requirements will not have its credit rate reduced if the Secretary determines that, with respect to the construction of such qualified facility, (1) the application of the domestic content requirements would be inconsistent with the public interest, (2) the materials and products necessary to build the facility are not produced in the United States in sufficient and reasonably available quantities of a satisfactory quality, or (3) the inclusion of domestic material will increase the construction costs of the qualified facility by more than 25 percent.

Public utilities

Public utilities may elect out of section 50(d)(2) with respect to any grid improvement property, provided that such an election is not prohibited by a State or local government, by any agency or instrumentality of the United States, or by a public service or public utility commission or other similar body of any State or local government that regulates public utilities. An election shall be made separately with respect to each grid improvement property by the due date (including extensions) of the Federal tax return for the taxable year in which such property is placed in service by the taxpayer, and once made, may be revoked only with the consent of the Secretary. An election shall not apply with respect to any energy storage property if such property has a maximum capacity equal to or less than 500 kilowatt-hours.

Effective Date

For energy storage property, the provision is effective for property placed in service after December 31, 2021, under rules similar to the rules of section 48(m) as in effect on the day before the date of enactment of the Revenue Reconciliation Act of 1990. For all other property, the provision is effective for property placed in service after December 31, 2022, under similar rules.

2. Residential clean electricity credit (sec. 102(b) of the bill and new sec. 25E of the Code)

Explanation of Provision

In general

The provision allows individuals to claim an income tax credit equal to 30 percent of the expenditures made by the taxpayer for any qualified property and any energy storage property placed in service during the taxable year which is for use in connection with a dwelling unit used as a residence in the United States by the taxpayer. Qualified property is tangible personal property used for the generation of electricity which is built or acquired by the taxpayer, the original use of which commences with the taxpayer, which is originally placed in service after December 31, 2022, and for which the anticipated greenhouse gas emissions rate is not greater than zero. Energy storage property is property that receives, stores, and delivers electricity or energy for conversion to electricity, which is consumed or sold by the taxpayer, which is

equipped with a metering device which is owned and operated by an unrelated person, and which has a capacity of not less than three kilowatt-hours.

Greenhouse gas emissions rate

The Secretary and the EPA Administrator shall establish greenhouse gas emissions rates for types or categories of qualified property which are for use in a dwelling unit. The Secretary shall publish annually a table that sets forth the greenhouse gas emissions rates for similar types or categories of qualified property. These determinations and published tables shall be used by taxpayers to determine whether property can be qualified property.

Carryforward of unused credit

Unused credits may be carried forward for up to three years subject to the limitation in section 26(a) reduced by the sum of any other nonrefundable personal credits (other than this one).

Credit phase-out

If the Secretary, the Secretary of Energy, and the EPA Administrator determine that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2021, the amount of the credit is reduced according to the following schedule: by 25 percent for property placed in service during the second calendar year following the determination, by 50 percent for property placed in service during the third calendar year following the determination, and by 100 percent for property placed in service during any subsequent calendar year.

Special rules

Expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of the qualified property or energy storage property and for piping or wiring to interconnect such property to the dwelling unit shall be taken into account for purposes of the credit.

In the case of an individual who is a tenant-stockholder in a cooperative housing corporation, such individual shall be treated as having made his tenant-stockholder's proportionate share of any expenditures of such corporation. In the case of an individual who is a member of a condominium management association with respect to a condominium which the individual owns, such individual shall be treated as having made the individual's proportionate share of any expenditures of such association.

If less than 80 percent of the use of a property is for nonbusiness purposes, only that portion of the expenditures for such property which is properly allocable to use for nonbusiness purposes shall be taken into account.

If a credit is allowed under this section for any expenditures with respect to any property, the increase in basis of such property which would have resulted from such expenditures shall be reduced by the amount of the allowed credit.

Final guidance

Not later than January 1, 2023, the Secretary and the EPA Administrator shall issue final guidance regarding implementation of this provision, including calculation of greenhouse gas emission rates for qualified property and determination of residential clean electricity property credits.

Effective Date

The provision is effective for property placed in service after December 31, 2022.

C. Extensions, Modifications, and Terminations of Various Energy Provisions

1. Residential energy efficient property credit (sec. 103(a) of the bill and sec. 25D of the Code)

Explanation of Provision

For provision eliminates the phase-down for the residential energy efficient credit, thus increasing the credit rate to 30 percent.

Effective Date

The provision is effective for property placed in service after December 31, 2020.

2. Renewable electricity production credit (sec. 103(b) of the bill and sec. 45 of the Code)

Explanation of Provision

Credit carryforwards

The provision allows general business credits that are renewable electricity production credits to be carried forward for 25 years (instead of 20 years under present law).

Election for direct payment

The provision adds a direct payment option to the section 45 renewable electricity production credit. Taxpayers may elect to have such credits treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such payments are in lieu of any tax credits determined under the provision. An election for direct payment is irrevocable and, except for the transition rule described below, must be made prior to the date on which a qualified facility is placed in service in such manner as the Secretary may prescribe.

Transition rule

In the case of any qualified facility which is placed in service after December 31, 2020, and before the date of enactment of this bill, an irrevocable election for a direct payment may be made the earlier of the date which is 180 day after the date of enactment of this bill or the end of the taxable year in which such facility is placed in service.

In the case of any qualified facility the construction of which begins before the date of enactment of this bill, and which is not placed in service before such date, an irrevocable election for a direct payment may be made the later of the date on which such facility is placed in service or the date which is 180 days after the date of enactment of the bill.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term "excessive amount" means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Effective Date

The provision is effective for credit carryforwards in taxable years beginning after the date of enactment. The election for direct payment is effective for elections made after the date of enactment for taxable years ending after such date with respect to property placed in service after December 31, 2020.

3. Advanced nuclear power production credit (sec. 103(c) of the bill and sec. 45J of the Code)

Explanation of Provision

The provision eliminates the reallocating of unutilized national megawatt capacity limitation under the advanced nuclear power credit.

Effective Date

The provision is effective for advanced nuclear power facilities the construction of which begins after the date of enactment.

4. Carbon oxide sequestration credit (sec. 103(d) of the bill and sec. 45Q of the Code)

Explanation of Provision

Enhanced oil recovery

The provision eliminates the use of carbon oxide as a tertiary injectant from the carbon oxide sequestration credit.

Direct air capture

The provision increases the carbon oxide sequestration credit for carbon captured from the ambient air at a direct air capture facility and utilized or sequestered in underground geologic

storage. Under the provision, for any taxable year beginning in a calendar year before 2027, the credit for carbon oxide captured directly from the air is increased to \$175 per ton where such carbon oxide is stored in secure geological storage. If such carbon oxide is utilized rather than stored in secure geological storage, the credit rate is \$150 per ton. These amounts are adjusted for inflation beginning in the calendar year after 2026, using the inflation adjustment factor under section 43(b)(3)(B), calculated using 2025 instead of 1990 as the base year.

The provision also eliminates the requirement that a minimum number of tons must be directly captured from the air in order for a facility using direct air capture technology to qualify for the carbon oxide sequestration credit.

Minimum carbon capture requirement

The provision replaces the minimum number of tons of carbon dioxide that must be captured from a qualified facility eligible for the carbon oxide sequestration credit with a new requirement. In the case of an electricity generating facility, not less than 75 percent of the carbon oxide that would otherwise be released into the atmosphere must be captured. In the case of an industrial facility which is not an electricity generating facility, not less than 50 percent of the carbon oxide which would otherwise be released into the atmosphere must be captured.

No double benefit

For purposes of section 45Q, a qualified facility does not include any facility for which a credit determined under the proposed clean electricity production credit or proposed clean electricity investment credit (described in above) is allowed for the taxable year or any prior taxable year.

Phase-out

In the case of any electricity generating facility, if the Secretary and the EPA Administrator determine that the annual greenhouse gas emissions from the production of electricity in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the production of electricity in the United States for calendar year 2021, the amount of the carbon oxide sequestration credit for any qualified facility is reduced according the following schedule: by 25 percent for a facility the construction of which begins during the second calendar year following the determination, by 50 percent for a facility the construction of which begins during the third calendar year following the determination, and by 100 percent for facilities the construction of which begins during any subsequent calendar year.

In the case of any industrial facility which is not an electricity generating facility, a similar phase-out rule applies, except that the determination is measured based on the greenhouse gas emissions from the industrial sector in the United States rather than the electricity generation sector.

The phase-out rule does not apply to direct air capture facilities.

Wage and workforce requirements

In the case of any qualified facility eligible for the carbon oxide sequestration credit, the taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction, alteration, or repair of such facility prior to it being placed in service or during the 12-year credit period are paid wages at a rate not less than the prevailing wage 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.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in section VI.A of this document) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

Election for direct payment

Taxpayers may elect to have the tax credits otherwise allowed under this provision be treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such payments would be in lieu of any tax credits determined under the provision. An election for direct payment is irrevocable and, except for the transition rule described below, must be made prior to the date on which a qualified facility is placed in service in such manner as the Secretary may prescribe.

Transition rule

In the case of any qualified facility which is placed in service after December 31, 2020, and before the date of enactment of this bill, an irrevocable election for a direct payment may be made the earlier of the date which is 180 day after the date of enactment of this bill or the end of the taxable year in which such facility is placed in service.

In the case of any qualified facility the construction of which begins before the date of enactment of this bill, and which is not placed in service before such date, an irrevocable election for a direct payment may be made the later of the date on which such facility is placed in service or the date which is 180 days after the date of enactment of the bill.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term

“excessive amount” means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Effective Date

The provision is generally effective on the date of enactment, except that the wage and workforce requirements apply to facilities or equipment the construction of which begins after December 31, 2021, and the elimination of the use of carbon oxide as a tertiary injectant is effective for property the construction of which begins after December 31, 2026. The election for direct payment is effective for elections made after the date of enactment for taxable years ending after such date with respect to property placed in service after December 31, 2020.

5. Energy investment credit (sec. 103(e) of the bill and sec. 48 of the Code)

Explanation of Provision

Enhancement of present law energy investment credit

The provision restores the present law section 48 credit rate to 30 percent. The provision also increases the credit rate for equipment to produce energy from a geothermal deposit to 30 percent. These changes are for eligible property the construction of which begins before January 1, 2024.

Linear generator assemblies

The provision modifies the definition of fuel cell property in section 48 to include linear generator assemblies. A linear generator assembly does not include any assembly which contains rotating parts.

Biodigesters

The definition of energy property in section 48 is modified to include qualified biogas property and qualified manure resource recovery property and provides a 30-percent credit for these properties.

Qualified biogas property is property comprising a system that uses anaerobic digesters, or other biological, chemical, thermal, or mechanical processes to convert biomass⁷ into a gas of at least 52 percent methane and captures such gas for use as a fuel. Qualified biogas property also includes property which cleans and conditions such gas for use as a fuel.

Qualified manure resource recovery property is property comprising a system which uses physical, biological, chemical, thermal, or mechanical processes to recover the nutrients nitrogen and phosphorus from a non-treated digestate or animal manure by reducing or separating at least 50 percent of the concentration of such nutrients, excluding any reductions during the incineration, storage, composting, or field application of the non-treated digestate or animal

⁷ As defined in sec. 45K(c)(3).

manure. Such property also includes property used to recover such nutrients⁸ and any thermal drier which treats these recovered nutrients.

No double benefit

For purposes of section 45, a qualified facility does not include any facility which produces gas produced by qualified biogas property for which a credit determined under section 48 is allowed for the taxable year or any prior taxable year.

Clean hydrogen

The provision adds property used in a qualified clean hydrogen production facility to the section 48 energy investment credit. A qualified clean hydrogen production facility has the same meaning as the term used in the new clean hydrogen production credit, described later in this document. The credit rate is 6 percent, in the case of qualified clean hydrogen (as defined in the clean hydrogen production credit) 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 at least 50 percent but less than 75 percent. If the percentage reduction is at least 75 percent but less than 85 percent, the credit rate is 7.5 percent. If the percentage reduction is at least 85 percent but less than 95 percent, the credit rate is 10.2 percent. If the percentage reduction is at least 95 percent, the credit rate is 30 percent.

The Secretary is required to issue regulations providing for the recapture of any credit under the provision where the applicable reduction in lifecycle greenhouse gas emissions is not satisfied. A qualified clean hydrogen facility does not include any facility for which a general business credit has been allowed for the taxable or any prior taxable year which is properly allocable to any credit determined under section 48 (other than pursuant to this provision) or under sections 45, 45J, or 45Q, or under new sections 45U, 45V, and 48D.

The phase-out rule that applies to the clean fuel production credit also applies when determining the investment credit with respect to property used in a qualified clean hydrogen production facility.

Election for direct payment

The provision adds a direct payment option to the section 48 energy credit. Taxpayers may elect to have such credits treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such payments are in lieu of any tax credits determined under the provision. An election for direct payment is irrevocable and, except for the transition rule described below, must be made prior to the date on which the qualified property is placed in service and in such manner as the Secretary may prescribe.

⁸ This includes biological reactors, crystallizers, reverse osmosis membranes and other water purifiers, evaporators, distillers, decanter centrifuges, and equipment that facilitates the process of dissolved air flotation, ammonia stripping, gasification, or ozonation.

Transition rule

In the case of any energy property which is placed in service after December 31, 2020, and before the date of enactment of this bill, an irrevocable election for a direct payment may be made the earlier of the date which is 180 day after the date of enactment of this bill or the end of the taxable year in which such property is placed in service.

In the case of any energy property the construction of which begins before the date of enactment of this bill, and which is not placed in service before such date, an irrevocable election for a direct payment may be made the later of the date on which such property is placed in service or the date which is 180 days after the date of enactment of the bill.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term "excessive amount" means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Effective Date

The modification of the definition of fuel cell property is effective for fuel cells the construction of which begins after December 31, 2020. The modifications related to biodigesters and clean hydrogen are effective for property placed in service after December 31, 2020. The election for direct payment is effective for elections made after the date of enactment for taxable years ending after such date with respect to property placed in service after December 31, 2020.

6. Cost recovery for qualified facilities, qualified property, and grid improvement property (sec. 103(f) of the bill and sec. 168 of the Code)

Explanation of Provision

The provision makes qualifies facilities, qualified property, and grid improvement property, as those terms are defined for purposes of the clean electricity production and clean electricity investment credits described earlier, five-year property under the modified accelerated cost recovery system ("MACRS"). The provision gives such property a 30-year class life for purposes of the alternative depreciation system.

Effective Date

The provision is effective for facilities and property placed in service after December 31, 2022.

II. INCENTIVES FOR CLEAN TRANSPORTATION

Summary of Present Law Clean Transportation Energy-Related Tax Incentives

The Code contains a number of tax incentives for biofuels, alternative fuels, alternative fuel vehicles, and related infrastructure. The following tables provide summaries of these incentives.

Summary of Certain Renewable and Alternative Fuel Incentives		
Fuel Type	Per Gallon Incentive Amount	Expiration
Agri-biodiesel and biodiesel (secs. 40A, 6426, and 6427)	\$1.00 per gallon, plus \$0.10 per gallon for small agri-biodiesel producers	January 1, 2023
Renewable diesel (secs. 40A, 6426, and 6427)	\$1.00 per gallon	January 1, 2023
Second generation biofuel (cellulosic and algae) (sec. 40(b)(6))	\$1.01 per gallon ¹	January 1, 2022
Alternative fuel and alternative fuel mixtures (secs. 6426 and 6427): ² <ul style="list-style-type: none"> • liquefied petroleum gas • P Series Fuels • compressed or liquefied natural gas • liquefied hydrogen • any liquid fuel derived from coal through the Fischer-Tropsch process • compressed or liquefied gas derived from biomass • liquid fuel derived from biomass 	\$0.50 per gallon ³	January 1, 2022

¹ Income tax only credit which is not refundable.

² The refundable component of the alternative fuel mixture credit sunset for alternative fuel mixtures sold or used after December 31, 2011 (sec. 6427(e)(6)(D)).

³ For alternative fuels that are used or sold “neat” (not as part of a mixture with taxable fuel) the incentive can be claimed two ways: (1) as an excise tax credit against fuel tax liability, or (2) as a cash (outlay) payment if the taxpayer has insufficient fuel tax liability. For alternative fuel in a mixture, only excise tax credits are allowed.

Summary of Alternative Fuel Vehicle Credits			
Type of Property	Description of Qualifying Property	Credit Amount and Explanation	Expiration
Fuel cell vehicles (sec. 30B)	Vehicles propelled by chemically combining oxygen with hydrogen and creating electricity	<ul style="list-style-type: none"> • Base credit of \$4,000 for vehicles weighing 8,500 pounds or less • Heavier vehicles can get up to a \$40,000 credit, depending on weight • An additional \$1,000 to \$4,000 credit is available to cars and light trucks to the extent fuel economy exceeds 2002 base fuel economy 	December 31, 2021
Alternative fuel refueling property (sec. 30C)	Property that dispenses alternative fuels, including ethanol, biodiesel, natural gas, hydrogen, and electricity	30 percent credit up to \$30,000 for business property and \$1,000 for property installed at a principal residence	December 31, 2021
Plug-in electric-drive motor vehicles (sec. 30D)	Four-wheeled vehicles (excluding low speed vehicles and vehicles weighing 14,000 or more) propelled by a battery with at least 4 kilowatt-hours of electricity that can be charged from an external source	Base credit of \$2,500, plus \$417 for each kilowatt-hour of additional battery capacity in excess of 4 kilowatt-hours (up to \$5,000) for a maximum combined credit of up to \$7,500	200,000 vehicles per manufacturer limitation
Plug-in electric-drive motorcycles (sec. 30D)	Two-wheeled vehicles able to achieve speeds of at least 45 miles per hour propelled by a battery with at least 2.5 kilowatt-hours of electricity that can be charged from an external source	Credit is 10 percent of cost, up to \$2,500	December 31, 2021

A. Clean Fuel Production Credit
(sec. 201 of the bill, and new secs. 45V and 40B of the Code)

Explanation of Provision

Clean fuel production credit

The provision creates a new general business credit, the “Clean Fuel Production Credit” for transportation fuel. For this purpose, “transportation fuel” is a fuel suitable for use as a fuel in a highway vehicle or aircraft.⁹ The level of the incentive depends on the lifecycle carbon emissions of a given fuel. For transportation fuel sold during any calendar year ending before January 1, 2030, the credit is the product of (1) \$1.00 per gallon (or gallon equivalent) of transportation fuel produced and sold by the taxpayer under specified circumstances and (2) the emissions factor for such fuel. For calendar years 2030 and thereafter, for transportation fuel that has an emissions rate equal to or less than zero, the credit is equal to the applicable amount¹⁰ per gallon of transportation fuel produced and sold by the taxpayer under specified circumstances.¹¹ To qualify for the credit, the transportation fuel must be produced at a qualified facility, and sold by the taxpayer to an unrelated person (1) for use by such person in the production of a fuel mixture, (2) for use by such person in a trade or business, or (3) who sells such fuel at retail into the fuel tank of another person.

For sustainable aviation fuel, a subcategory of transportation fuel, the credit rate is \$2.00 per gallon (or gallon equivalent) instead of \$1 per gallon (or gallon equivalent). “Sustainable aviation fuel” is a liquid fuel that is sold for use or used in an aircraft and that (1) consists of synthesized hydrocarbons, (2) meets the requirements of either ASTM International Standard D7566 or the Fischer Tropsch provisions of ASTM International Standard D1655, Annex, A1 and (3) is derived from biomass,¹² electrolysis powered by renewable energy sources, or carbon oxides captured from an industrial source or from the ambient air, and (4) is not derived from palm fatty acid distillates.

⁹ The use of term “transportation fuel” does not prohibit the use of transportation-grade fuel from being used for purposes other than transportation, such as home or commercial heating, or for other business uses.

¹⁰ “Applicable amount” with respect to any transportation fuel is an amount equal to \$1.00 (\$2.00 for sustainable aviation fuel) increased by 10 cents for every kilogram of CO₂e per mmBTU (or fraction thereof) for which the emissions rate for such fuel is below zero. “CO₂e” means, with respect to any greenhouse gas, the equivalent carbon dioxide (as determined based on relative global warming potential). “Greenhouse gas” has the same meaning given that term under section 211(o)(1)(G) of the Clean Air Act (42 USC 7545(o)(1)(G)) as in effect on the date of enactment.

¹¹ If the amount of clean fuel production credit is not a multiple of 0.1, the amount is to be rounded to the nearest multiple of 0.1.

¹² For this purpose, the term “biomass” is as defined in section 45K(c)(3)), meaning any organic material other than: (1) oil and natural gas (or any product thereof), and (2) coal (including lignite) or any product thereof.

Fuel must be produced at a qualified facility

A “qualified facility” is a facility used for the production of transportation fuels and which satisfies certain wage and workforce requirements. In particular, the taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction of such facility (or for any year for which the credit is claimed, an alteration or repair of such facility) are paid wages at a rates not less than the prevailing wage 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.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in section 501 of the bill) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

In the case of a qualified facility that was placed in service before the date of enactment, the wage and workforce requirements only apply to construction, alteration, or repair in any year in which the credit is claimed. The requirements do not apply to the original construction of such facility if the facility is placed in service before January 1, 2023.

If a taxpayer fails to comply with the wage requirements, rules similar to those of the clean electricity production credit (section 45U(b)(3)) apply with respect to loss of credit for the year of noncompliance, and the requirements necessary to correct for such failure and related penalty payments.

Emissions factor calculation and establishment by the Secretary

The emissions factor of a transportation fuel is an amount equal to the quotient of (1) an amount equal to the baseline emissions rate, minus the emissions rate for such fuel, divided by (2) the baseline emissions rate. For any calendar year ending before January 1, 2026, “baseline emissions rate” means 75 kilograms of CO₂e per 1,000,000 British thermal units (“mmBTU”). For calendar years 2026 and 2027, the baseline emissions rate is 50 kilograms per CO₂e per mmBTU. For calendar years 2028 and 2029, the baseline emissions rate is 25 kilograms of CO₂e per mmBTU.¹³

The Secretary, jointly with the Secretary of Energy, are to establish the emissions rate for similar types and categories of transportations fuels based on the amount of lifecycle greenhouse gas emissions¹⁴ for such fuels, expressed as kilograms of CO₂e per mmBTU, which a taxpayer is

¹³ For example, consider a fuel with an emissions rate of 30 kilograms of CO₂e per mmBTU. In 2023 the emissions factor is $(75-30)/75 = .6$. In 2026 the emissions factor is $(50-30)/50 = .4$. In 2028 the emissions factor is $(25-30)/50 < 0$. Thus, the credit for each gallon of such a fuel produced would be \$.60, \$.40, and \$0 per gallon (prior to inflation adjustment or phase-out), in 2023, 2026, and 2028 respectively.

¹⁴ As described in section 211(o)(1)(H) of the Clean Air Act as in effect on the date of enactment.

required to use for purposes of the provision.¹⁵ The Secretary is required to publish annually a table that sets forth the emission rate for similar types and categories of transportation fuel.

Petition for provisional emissions rate

In the case of any transportation fuel for which an emissions rate has not been established by the Secretary, a taxpayer producing such fuel may file a petition for the Secretary and Secretary of Energy to determine the emissions rate with respect to such fuel. Within 12 months of the filing of a petition, the Secretary, jointly with the Secretary of Energy, are required to provide a provisional emissions rate for such fuel. The emissions rate for such fuel must be established not later than 24 months after the filing of the petition.

Inflation adjustment and credit phase-out

In the case of calendar years beginning after 2023, the \$1.00 amount (and also the \$2.00 amount) is adjusted by multiplying such amount by the inflation adjustment factor for the calendar year in which the sale or use of the transportation fuel occurs. The inflation adjustment factor is the inflation adjustment factor determined and published by the Secretary under the new clean electricity production credit.

If the Secretary and EPA Administrator determine that the annual greenhouse gas emissions from the transportation of persons and goods annually in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the transportation of persons and goods in the United States for calendar year 2021, the amount of the clean fuel production credit under the provision is determined by substituting the “applicable dollar amount” for the dollar amount per gallon of transportation fuel. The “applicable dollar amount” is calculated by multiplying the dollar amount by a phase-out percentage. For any taxable year beginning in the first calendar year following the calendar year the determination is made, the phase-out percentage is equal to 100 percent. For any taxable year beginning in the second calendar year following such determination year, the phase-out percentage is equal to 75 percent. For any taxable year beginning in the third calendar year following the determination, the phase-out percentage is equal to 50 percent, and for any taxable year beginning thereafter, the phase-out percentage is reduced to zero percent.

Final guidance and special rules

Not later than January 1, 2023, the Secretary and Secretary of Energy shall jointly issue final guidance with regard to the implementation of the provision, including the calculation of emissions factors for transportation fuel, the required table publication, and the proper determination of clean fuel production credits under the provision.

¹⁵ The Secretary may round the emissions rates to the nearest multiple of five kilograms of CO₂e per mmBTU, except that in the case of an emissions rate that is less than 2.5 kilograms of CO₂e per mmBTU, the Secretary may round such rate to zero.

To claim the clean fuel production credit, the taxpayer must be registered with the Internal Revenue Service (“IRS”) as a producer of clean fuel at the time of production. Such fuel must be produced in the United States.

In the case of a facility in which more than one person has an ownership interest, except to the extent provided in Treasury regulations, production from such facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility.

Persons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling fuel to an unrelated person if such fuel is sold to such a person by another member of such group.

In the case of estates and trusts, rules similar to the rules of section 52(d) shall apply. In the case of agricultural cooperatives, an election may be made to apportion the credit determined among the patrons of the cooperative on the basis of business done by the patrons during the taxable year.

Sustainable aviation fuel credit

For sustainable aviation fuel produced prior to January 1, 2023, the provision creates a new general business credit, the sustainable aviation fuel credit. For purposes of the sustainable aviation fuel credit, “sustainable aviation fuel” is a liquid fuel that (1) consists of synthesized hydrocarbons, (2) meets the requirements of either ASTM International Standard D7566 or the Fischer Tropsch provisions of ASTM International Standard D1655, Annex, A1 and (3) is derived from biomass, electrolysis powered by renewable energy sources, or carbon oxides captured from an industrial source or from the ambient air, and (4) is not derived from palm fatty acid distillates.

Certification requirements

In addition, to be sustainable aviation fuel, the producer of such fuel must certify that the fuel has lifecycle greenhouse gas emissions that are equal to or less than 50 percent of the lifecycle greenhouse gas emissions for petroleum-based jet fuel using an approved testing methodology. A certification satisfies this requirement if such certification is based on a method which (1) demonstrates that the fuel conforms with the sustainability criteria of the Carbon Offsetting and Reduction Scheme for International Aviation, and the traceability and information transmission requirements approved by the International Civil Aviation Organization (“ICAO”) with the agreement of the United States, (2) takes into account all elements used to determine lifecycle emissions by the ICAO, and (3) is approved by the ICAO, or the Secretary and the Administrator of the Environmental Protection Agency (“EPA Administrator”). Within 24 months after the date of enactment, the Secretary and the EPA Administrator are required to adopt at least one methodology for testing lifecycle greenhouse gas emissions that meets the forgoing requirements for certification.

Calculation of the credit

The sustainable aviation fuel credit for the taxable year is the number of gallons of sustainable aviation fuel which is used by the taxpayer in the production of a qualified mixture multiplied by the sum of \$1.50 plus (2) the applicable supplementary credit amount.

The applicable supplementary credit amount is one cent for every percentage point above 50 percent for which the aviation fuel is certified, as described above, to reduce emissions as in comparison with petroleum jet fuel. The maximum applicable supplementary amount is 50 cents.

A “qualified mixture” means a mixture of sustainable aviation fuel and kerosene if (1) such mixture is (1) produced in the United States, and (2) sold for use in an aircraft or used by the taxpayer in an aircraft. The sale or use must be in the trade or business of the taxpayer for the taxable year in which such sale or use occurs. A qualified mixture is not treated as used or sold for use in an aircraft unless the transfer of such mixture to the fuel tank of an aircraft occurs in the United States. The term “United States” includes any possession of the United States.

Sunset

The sustainable aviation fuel credit does not apply to any sale or use after December 31, 2022.

Coordination with renewable diesel credit for aviation

The provision eliminates the category of renewable diesel relating to aviation fuel meeting Department of Defense specifications for military fuel or an ASTM for aviation turbine fuel in section 40A. The provision further provides that sustainable aviation fuel cannot qualify as biodiesel or renewable diesel. As a transition rule, the Secretary is authorized to prescribe rules to ensure that the amount of the sustainable aviation fuel credit is properly reduced to take into account any benefit provided by reason of the excise tax credit and payment provisions prior to repeal.

Effective Dates

The clean fuel production credit provision applies to transportation fuel produced after December 31, 2022.

The sustainable aviation fuel credit provision applies to taxable years ending after the date of enactment (for fuel sold or used before January 1, 2023.) The Secretary is to establish rules for the application of the amendments made by the provision to section 40A to credits under section 6426 and payments under section 6427 for calendar quarters ending after the date of the enactment of the provision and before last taxable year of a taxpayer which ends after such date of enactment.

B. Transportation Electrification

1. Fuel cell vehicle credit (sec. 202(a) of the bill and sec. 30B of the Code)

Explanation of Provision

The calendar year sunset date for the fuel cell vehicle credit is eliminated and replaced with a credit phase-out rule. Under this phase-out rule, if the Secretary and Secretary of Transportation, determine that the total annual sales of new qualified fuel cell motor vehicles and new qualified plug-in electric drive motor vehicles in the United States exceed 50 percent of the total annual sales of new passenger vehicles in the United States, the amount of the fuel cell vehicle credit is reduced according to the following schedule: by 25 percent for a vehicle purchased during the second calendar year following the determination, by 50 percent for a vehicle purchased during the third calendar year following the determination, and by 100 percent for a vehicle purchased during any subsequent calendar year.

Effective Date

The provision is effective for property purchased after December 31, 2021.

2. Alternative fuel refueling property credit (sec. 202(b) of the bill and sec. 30C of the Code)

Explanation of Provision

In general

The provision extends the alternative fuel refueling property credit. It also modifies the credit limitation and the definition of qualifying fuels and adds wage and workforce requirements.

Modification of limitation

The provision modifies the limitation in section 30C(b) so that the credit cap is no longer applied “per location” but rather is applied “with respect to any single item of qualified alternative fuel vehicle refueling property placed in service by the taxpayer during the taxable year.”¹⁶ In addition, the credit cap is increased from \$30,000 to \$200,000, in the case of qualified property that is depreciable property.

Modification of qualifying fuels

The provision modifies the definition of qualifying fuels such that the list in section 30C(c)(2)(A) consists of hydrogen and any transportation fuel for which the clean fuel production credit (described in section 201 of the bill) is allowed. The provision also modifies the definition of qualifying mixtures listed in section 30C(c)(2)(B) to be any mixture of a taxable

¹⁶ Thus, for example, the present-law limitation which might treat a gasoline service station as a single location would, under the provision, be applied to each item of qualifying property installed at such service station.

fuel and a fuel that qualifies for the clean fuel production credit, where at least 20 percent of the volume of such mixture is a liquid transportation fuel for which the clean fuel production credit is allowed.

Wage and workforce requirements

For property to be qualified property for purposes of section 30C, the taxpayer must ensure that the any laborers and mechanics employed by contractors and subcontractors in the construction of such property are paid wages at a rate not less than the prevailing wage rates for construction 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.

No benefit is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the incentive by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in Title V of the bill) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

Credit phase-out

If the Secretary, the Secretary of Transportation, and the EPA Administrator, determine that the annual greenhouse gas emissions from the transportation of persons and goods annually in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the transportation of persons and goods in the United States for calendar year 2021, the amount of the credit is reduced according the following schedule: by 25 percent for any property placed in service during the second calendar year following the determination, by 50 percent for any property placed in service during the third calendar year following the determination, and by 100 percent for any property placed in service during any subsequent calendar year.

Effective Date

The provision is generally effective for property placed in service after December 31, 2021, except for the change to the definition of qualifying fuels and the wage and workforce requirements, which are effective for property placed in service after December 31, 2022, and the addition of the credit phase-out rules which are effective on the date of enactment.

3. Electric vehicle credits (sec. 202(c) of the bill and new secs. 36C and 45W of the Code)

Explanation of Provision

In general

The provision extends and modifies the section 30D credit for new qualified plug-in electric drive motor vehicles (the “EV credit”). The provision creates a new credit for qualified commercial electric vehicles.

Modifications to the EV credit

The provision eliminates the EV credit’s limitation on the number of credit eligible EVs each manufacturer can sell.

EV credit made refundable

Beginning January 1, 2022, the provision makes the EV credit a refundable personal income tax credit for vehicles acquired on or after that date. The provision also adds a requirement that taxpayers must list the vehicle identification number (“VIN”) on their returns for the taxable year in order to claim the EV credit. The provision also gives the IRS mathematical error authority for taxpayers who omit the VIN.

Increase in EV credit amount

The provision provides an additional credit amount of \$2,500 for new qualified plug-in electric drive motor vehicles for which the final assembly is at a facility whose production workers are members of or represented by a labor organization. The provision also provides an additional credit amount of \$2,500 for new qualified plug-in electric drive motor vehicles for which the final assembly is at a facility in the United States before 2026.

Therefore, under the provision a new qualified plug-in electric drive motor vehicle is eligible for a maximum credit of \$12,500, for a vehicle assembled in the United States at a facility whose production workers are members of or represented by a labor organization.

Final assembly requirement and vehicle price limitation

For vehicles sold after December 31, 2025, the base amount of credit for new qualified plug-in electric drive motor vehicles is increased from \$2,500 to \$5,000, and final assembly of a new qualified plug-in electric drive motor vehicle must occur in the United States. That is, no credit is available for vehicles sold after December 31, 2025 if final assembly of the vehicle occurs outside of the United States.

The provision requires that a new qualified plug-in electric drive motor vehicle purchased by the taxpayer has a manufacturer’s suggested retail price (MSRP) of \$80,000 or less. That is, the credit amount is reduced to \$0 if the MSRP for the vehicle is more than \$80,000.

Modifications for two- and three-wheeled plug-in electric vehicles

The provision extends the credit in section 30D for three-wheeled vehicles (which had expired after December 31, 2013) for vehicles acquired after December 31, 2020. The provision also replaces the sunset date for the credit for two- and three-wheeled plug-in electric vehicles with the phase-out rule described below.

EV credit phase-out

If the Secretary and the Secretary of Transportation determine that the total annual sales of new qualified fuel cell motor vehicles and new qualified plug-in electric drive motor vehicles in the United States exceed 50 percent of the total annual sales of new passenger vehicles in the United States, the amount of the EV credit is reduced according to the following schedule: by 25 percent for a vehicle purchased during the second calendar year following the determination, by 50 percent for a vehicle purchased during the third calendar year following the determination, and by 100 percent for a vehicle purchased during any subsequent calendar year.

Credit for qualified commercial electric vehicles

The provision creates a new credit for each qualified commercial electric vehicle (“qualified commercial EV”) placed in service by the taxpayer. The credit amount is the lesser of 30 percent of the basis of a qualified vehicle or the incremental cost of such vehicle. For purposes of determining the credit amount, the incremental cost of any qualified commercial EV is an amount equal to the excess of the price paid for such vehicle over such price for a comparable vehicle of similar weight and size that is powered by a gasoline or diesel internal combustion engine and is intended for similar use. The Secretary and the Secretary of Transportation shall publish an annual list of comparable prices of various types and classes of commercial vehicles for use in calculating the incremental cost of a qualified commercial EV.

To be a qualified commercial EV, the vehicle must be depreciable and (1) have original use commence with the taxpayer, (2) be acquired for use or lease by the taxpayer not for resale, (3) be made by a manufacturer, and (4) be treated as a motor vehicle for purposes of title II of the Clean Air Act. In addition, the vehicle must have a battery that has a capacity of at least 10 kilowatt-hours that is capable of being recharged from an external source. For a vehicle to qualify, a taxpayer must list the VIN of each vehicle on the return for the taxable year.

A qualified commercial EV also includes any qualified electric transportation option.

Qualified electric transportation options

A qualified electric transportation option is any vehicle used in any manner of transportation that meets the certain criteria. The vehicle must be depreciable and must be capable of moving passengers, cargo, or property and be acquired for use or lease by taxpayer with original use commencing with the taxpayer. A qualified electric transportation option must be powered by an integrated, on-board electric propulsion system that is the primary source of propulsion and is capable of powering the vehicle (including its components and accessories) for not less than 2/3 of the maximum operating period between recharging or refueling such vehicle.

If the qualified electric transportation option derives power from the on-board combustion of fuel, that fuel must be renewable.

In addition, a qualified electric transportation option must be manufactured for sale in commercial quantities with reasonable expectation of profits, and must comply with any applicable safety or air quality standards as determined by the Secretary, the Secretary of Transportation, the Secretary of Homeland Security, and the Administrator of the EPA.

An on-board electric propulsion system for this purpose means one or more on-board traction batteries which are integrated or swappable and have an aggregate capacity of at least 10 kilowatt-hours or an on-board power source other than a battery with a capacity equivalent of at least 10 kilowatt-hours (as determined by the Secretary).

Renewable fuel for this purpose is any fuel at least 85 percent of the volume consists of one or more of: (1) ethanol; (2) biodiesel;¹⁷ (3) advanced biofuel;¹⁸ (4) renewable natural gas; or (5) hydrogen.

For purposes of calculating the credit amount, the cost of a qualified electric transportation option does not include costs relating to any component or feature which is not integral or does not improve efficiency or range of the option's electric propulsion.

Rules similar to the rules in section 30D(f) apply to the commercial EV credit.¹⁹ In the case of vehicle used by certain tax-exempt entities,²⁰ if the vehicle is not subject to a lease, the seller of a vehicle can be treated as the taxpayer that places the vehicle in service.

Commercial EV credit phase-out

If the Secretary and the Secretary of Transportation determine that the total annual sales of qualified commercial EVs in the United States exceed 50 percent of the total annual sales of new commercial vehicles in the United States, the amount of the commercial EV credit is reduced according to the following schedule: by 25 percent for a vehicle purchased during the second calendar year following the determination, by 50 percent for a vehicle purchased during the third calendar year following the determination, and by 100 percent for a vehicle purchased during any subsequent calendar year.

Additional reporting and math error authority

The provision requires that upon sale or lease of a new qualified plug-in electric drive motor vehicle, 2- or 3-wheeled plug-in electric vehicle, or qualified commercial electric vehicle the seller report the following information to the purchaser and IRS: (1) purchaser's name and

¹⁷ As defined in sec. 40A(d)(1).

¹⁸ As defined in 42 U.S.C. sec. 7545(o)(1)(B).

¹⁹ Sec. 30D(f) is new sec. 36C(d) after application of the bill.

²⁰ Vehicles the use of which is described in 50(b)(3) or (4).

taxpayer identification number; (2) VIN of the qualified vehicle; (3) battery capacity of the vehicle; (4) verification that original use of the vehicle commences with the purchaser; and (5) maximum credit purchaser is eligible to claim based on vehicle qualifications.

If, in accordance with applicable rules from the Department of Transportation, the vehicle is not assigned a VIN, a VIN is not required to be reported.

Math error authority under section 6213 is provided for mismatches between return information included for purposes of the electric vehicle or commercial electric vehicle credit and seller reporting information as described above. Pursuant to math error authority, the IRS may, in the event of a mathematical or clerical error, assess additional tax without issuance of a notice of deficiency as otherwise required.²¹

These reporting requirements and additional math error authority apply for vehicles to which section 202(c) of the bill applies, including new qualified plug-in electric drive motor vehicles, 2- or 3-wheeled plug-in electric vehicles, and qualified commercial electric vehicles.

Denial of credit

No credit is allowed for new qualified plug-in electric drive motor vehicles, 2- or 3-wheeled plug-in electric vehicles, and qualified commercial electric vehicles acquired after December 31, 2021, unless the Secretary certifies that no credit will be allowed with respect to any such vehicles for which final assembly occurs in the People's Republic of China.

Effective Date

The elimination of the per-manufacturer-cap is effective for vehicles sold after May 24, 2021. The portions of the provision making the EV credit a refundable personal income tax credit along with the VIN requirement are effective for vehicles acquired after December 31, 2021. The changes to credit amounts and vehicle price limitation are effective for vehicles acquired after December 31, 2021. The extension of the EV credit for two- and three-wheeled electric vehicles is effective for vehicles acquired after December 31, 2020. The EV credit phase-out rule is effective on the date of enactment.

The commercial EV credit is effective for vehicles acquired after December 31, 2021.

The changes relating to reporting requirements and additional math error authority are effective for vehicles acquired after December 31, 2021.

²¹ Sec. 6213(b).

C. Clean Hydrogen Production Credit
(sec. 203 of the bill and new sec. 45X of the Code)

Explanation of Provision

The provision creates a new credit for hydrogen, the “clean hydrogen production credit.” For any taxable year, the credit 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 ten-year period beginning on the date the facility was placed in service and (b) sold by the taxpayer to an unrelated person, or used by the taxpayer, during the taxable year.

The “applicable amount” is equal to the applicable percentage of \$3.00, rounded to the nearest 0.1 cent.²² The “applicable percentage” is 20 percent in the case of 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 at least 50 percent but less than 75 percent. If the percentage reduction is at least 75 percent but less than 85 percent, the applicable percentage is 25 percent. If the percentage reduction is at least 85 percent but less than 95 percent, the applicable percentage is 34 percent. If the percentage reduction is at least 95 percent, the applicable percentage is 100 percent.

Definitions

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 as in effect on the date of enactment of this provision.

“Qualified clean hydrogen” means hydrogen that 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 of at least 50 percent. The term does not include any hydrogen that is properly allocable to another general business credit or under subchapter B of chapter 65 of subtitle F (such as the alternative fuel excise tax credit and payment provisions) for the taxable year. 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.

A “qualified clean hydrogen production facility” is a facility owned by the taxpayer: (1) 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, and (2) which satisfies certain wage requirements and the workforce requirements of section 501 of the bill. In particular, the taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction of such facility (or for any year for which the credit is claimed, an alteration or repair of such facility) are paid wages at a rates not less than the prevailing wage

²² The \$3.00 amount is adjusted for inflation by multiplying such amount by the inflation adjustment factor (as determined under section 45(e)(2) by substituting “2020” for “1992”) the calendar year in which the sale or use of the qualified clean hydrogen occurs, rounded to the nearest 0.1 cent.

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.

In the case of a qualified facility that was placed in service before the date of enactment, the wage and workforce requirements only apply to construction, alteration, or repair in any year in which the credit is claimed. The requirements do not apply to the original construction of such facility.

If a taxpayer fails to comply with the wage requirements, rules similar to those of the clean electricity production credit (section 45U(b)(3)) apply with respect to loss of credit for the year of noncompliance, and the requirements necessary to correct for such failure and related penalty payments.

Special rules and credit phase-out

The amount of the credit with respect to any qualified clean hydrogen facility for any taxable year shall be reduced in a manner similar to the reduction applied under section 45(b)(3)(relating to credit reductions for grants, tax-exempt bonds, subsidized energy financing, and other credits). Rules similar to the rules of paragraphs (3) and (4) of section 45(e) apply for purposes of the provision.²³

No credit is allowed under this section with respect to qualified clean hydrogen that is produced outside of the United States or any possession of the United States.

The phase-out that applies to the clean fuel production credit also applies for purposes of the clean hydrogen production credit. If the Secretary and EPA Administrator determine that the annual greenhouse gas emissions from the transportation of persons and goods annually in the United States are equal to or less than 25 percent of the annual greenhouse gas emissions from the transportation of persons and goods in the United States for calendar year 2021, the amount of the clean hydrogen production credit under the provision is determined by substituting the “applicable dollar amount” for the applicable amount per kilogram of qualified clean hydrogen. The “applicable dollar amount” is calculated by multiplying the applicable amount by a phase-out percentage. For any taxable year beginning in the first calendar year following the calendar year the determination is made, the phase-out percentage is equal to 100 percent. For any taxable year beginning in the second calendar year following such determination year, the phase-out percentage is equal to 75 percent. For any taxable year beginning in the third calendar year

²³ Paragraph (3) of section 45(e), relating to production attributable to the taxpayer, provides that “[i]n the case of a facility for which more than one person has an ownership interest, except to the extent provided in regulations prescribed by the Secretary, production from the facility shall be allocated among such persons in proportion to their respective ownership interests in the gross sales from such facility.” Paragraph (4) of section 45(e) addresses related persons, providing that “[p]ersons shall be treated as related to each other if such persons would be treated as a single employer under the regulations prescribed under section 52(b). In the case of a corporation which is a member of an affiliated group of corporations filing a consolidated return, such corporation shall be treated as selling electricity to an unrelated person if such electricity is sold to such a person by another member of such group.”

following the determination, the phase-out percentage is equal to 50 percent, and for any taxable year beginning thereafter, the phase-out percentage is reduced to zero percent.

Guidance

Not later than one year after the date of enactment, the Secretary, the Secretary of Energy and EPA Administrator shall publish guidance prescribing methods for determining the credit based on lifecycle greenhouse gas emissions.

Effective Date

The provision applies to hydrogen used or sold after December 31, 2020.

D. Temporary Extensions of Existing Fuel Incentives
(sec. 204 of the bill and secs. 40(b)(6), 6426(d) and (e), and 6427(e)(6)(C))

Explanation of Provision

Second generation biofuel

The provision extends the second generation biofuel producer credit for an additional year, through December 31, 2022.

Alternative fuel and alternative fuel mixtures

The provision modifies the definition of alternative fuel as it relates to hydrogen by no longer requiring that the hydrogen be liquefied. However, nonliquid hydrogen cannot qualify as part of an alternative fuel mixture. Both the alternative fuel credit and alternative fuel mixture credit are extended an additional year, through December 31, 2022. The payment provision for alternative fuel also is extended additional year, through December 31, 2022.

Effective Dates

For the second generation biofuel producer credit, the provision applies to qualified second generation biofuel production after December 31, 2021.

For the alternative fuel and alternative fuel mixtures credits, the provision applies to fuel sold or used after December 31, 2021.

III. INCENTIVES FOR ENERGY EFFICIENCY

Summary of Certain Present Law Energy Efficiency-Related Tax Incentives

The Code contains a number of tax incentives to encourage energy efficiency. The following tables provide summaries of a number of these incentives.

Summary of Investment Tax Credits Relating to Energy Efficiency			
Qualified Energy Property (sec. 48)	Credit Rate	Maximum Credit	Expiration¹
Equipment to use ground or ground water for heating or cooling	10%	None	January 1, 2024
Equipment that uses fiber-optics to distribute sunlight inside a structure	30%	None	January 1, 2020
	26%		January 1, 2023
	22%		January 1, 2024
Waste energy recovery property	26%	None	January 1, 2023
	22%		January 1, 2024

¹ For all eligible property, construction of the property must begin before the expiration date, except where otherwise noted. For credits subject to a rate phase down, construction must begin before the dates listed and placed in service before January 1, 2026.

Summary of Credits and Deduction to Make Homes and Buildings More Energy Efficient

		Credit Rate or Amount	Maximum Credit	Expiration²
Personal credit:				
Credit for nonbusiness energy property installed at a principal residence (sec. 25C)	Insulation to 2009 international energy conservation code standard	10%	\$500 (overall sec. 25C credit maximum)	December 31, 2021
	Energy efficient windows, doors, skylights, roofs	10%	\$500 (\$200 for windows and skylights)	December 31, 2021
	Advanced main air circulating fans	100%	\$50	December 31, 2021
	Qualified natural gas, propane, or oil furnace or hot water boilers	100%	\$150	December 31, 2021
	Qualified electric heat pump water heaters or natural gas, propane, or oil water heaters	100%	\$300	December 31, 2021
	Qualified central air conditioners	100%	\$300	December 31, 2021
Business Credit:				
Manufacturer credit for new energy efficient home (sec. 45L)	Homes 30 percent more efficient than standard or Energy Star manufactured homes	\$1,000 p/er home	None	December 31, 2021
	Homes 50 percent more efficient than the specified standard or is a manufactured home that meets the requirements of the Energy Star Labeled Homes program	\$2,000 per home	None	December 31, 2021

Business Deduction:		
Eligible Activity	Description	Expiration
Energy efficient commercial buildings deduction (sec. 179D)	A taxpayer may take in the placed-in-service year an additional deduction of \$1.80 per square foot of commercial building property that exceeds certain energy efficiency standards. If a section 179D deduction is allowed, the basis of the property is reduced by the amount of the deduction; the remaining basis is recovered under otherwise applicable rules	None

² Expires for property placed in service after the expiration date.

A. Credit for New Energy Efficient Residential Buildings
(sec. 301 of the bill and sec. 45L of the Code)

Explanation of Provision

In general

The provision creates a new energy efficient home credit to replace the credit in section 45L. The new credit is part of the general business credit.

Credit amount

In the case of an eligible contractor, the new energy efficient home credit for the taxable year is the applicable amount for each qualified residence which is constructed by the eligible contractor and acquired by a person from such eligible contractor for use as a residence during the taxable year. The applicable amount is either \$2,500 or \$5,000 depending on the efficiency standard achieved for the qualified residence.

The \$2,500 credit is allowable for new dwelling units that are certified as satisfying the national program requirements under the Energy Star residential new construction program (or any successor program, as determined by the Secretary), as in effect on January 1 of the year in which construction of such dwelling units begins. The \$5,000 credit is allowable for new dwelling units that are certified as satisfying the requirements for new residential construction under the Zero Energy Ready Home program (or any successor program, as determined by the Secretary) as in effect on January 1 of the year in which construction such dwelling units begins. Both of these amounts are adjusted for inflation beginning in 2023, with changes rounding to the nearest increment of \$100.

Definitions and other rules

For purposes of the credit, the term “construction” does not include substantial reconstruction or rehabilitation of an existing structure.

The term “eligible contractor” means the person who constructed the qualified residence, or, in the case of a manufactured home, the manufactured home producer of such residence.

The term “qualified residence” means a dwelling unit located in the United States, the construction of which is substantially completed after the date of enactment of the provision and which is certified as satisfying either the national program requirements under the Energy Star new residential construction program or the Zero Energy Ready Home program.

For a multifamily dwelling unit to be considered a qualified residence, the taxpayer must ensure that the any laborers and mechanics employed by contractors and subcontractors in the construction of such property are paid wages at a rate not less than the prevailing wage rates for construction 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.

In the case of a multifamily dwelling unit no benefit is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the incentive by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

A certification described in the provision must be made by a third party who is accredited by a certification program approved by the Secretary and the Secretary of Energy and in accordance with any applicable rules under the Energy Star new residential construction or Zero Energy Ready Home programs, as in effect on the date on which construction of the dwelling unit begins, and with any other guidance prescribed by the Secretary and the Secretary of Energy.

If a credit is allowed under this provision in connection with any expenditure for any property (other than a qualified low-income building described in section 42(c)(2)), the increase in the basis of such property which would (but for this provision) result from such expenditure is reduced by the amount of the credit so determined.

For purposes of the provision, expenditures taken into account under sections 25D or 47 are not taken into account for this credit. In addition, a qualified residence does not include any dwelling unit for which a deduction determined under section 179D is allowed for the taxable year.

Effective Date

The provision is effective for any qualified residence acquired after December 31, 2021.

B. Energy Efficient Home Improvement Credit
(sec. 302 of the bill and sec. 25C of the Code)

Explanation of Provision

In general

The provision replaces the section 25C credit for nonbusiness energy property with an energy efficient home improvement credit available to individuals.

Credit amount

The credit amount is the lesser of the sum of the applicable qualified property amounts for any qualified property placed in service by an individual during the taxable year or \$1,500. For any qualified property, the applicable qualified property amount equals the lesser of 30 percent of the amount paid or incurred by the individual for such qualified property (including any expenditures for labor costs properly allocable to the onsite preparation, assembly, or original installation of such property) or \$600. The \$600 and \$1,500 amounts are adjusted for inflation beginning in 2023, with changes rounding to the nearest increment of \$10.

In the case of any air-source heat pump that would otherwise be qualified property, the \$600 maximum described above is increased to \$800, which is also adjusted for inflation.

In the case of any ground source qualified geothermal heat pump property which meets the second through fourth requirements listed below for qualified property, the \$600 credit maximum is increased to \$10,000 (adjusted for inflation) and the \$1,500 credit maximum does not apply. The credit amounts and limitations are calculated separately for this property and other credit eligible property.

In the case of any insulation material or system, including air barrier insulation, that satisfies the definitions of building envelope improvement and qualified property, the \$600 amount does not apply.

Qualified property

The term “qualified property” means a furnace, boiler, condensing water heater, central air conditioning unit, heat pump, biomass property, or building envelope improvement which: (1) except in the case of a building envelope improvement, meets or exceeds (a) the requirements of the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency that are in effect on January 1 of the calendar year in which the property is placed in service, or (b) an equivalent standard established by the Secretary and the EPA Administrator if no standard established by the Consortium for Energy Efficiency applies, (2) is installed according to applicable Air Conditioning Contractors of America Quality Installation standards which are in effect on January 1 of the calendar year in which the property is placed in service, (3) is for use in a dwelling unit which is located in the United States and used as a residence by the individual claiming the credit, and (4) is reasonably expected to remain in service in such dwelling unit for not less than five years.

Qualified geothermal heat pump property means any equipment that (1) uses the ground or ground water as a thermal energy source to heat a dwelling unit located in the United States and used as a residence by the taxpayer or as thermal energy sink to cool such dwelling unit and (2) meets the requirements of the Energy Star program in effect at the time the expenditure for such equipment is made.

Definitions and other rules

The term “biomass property” means any property which uses the burning of biomass fuel to heat a dwelling unit or to heat water for use in a dwelling unit and that, using the higher heating value, has a thermal efficiency of not less than 75 percent. The term “biomass fuel” means any plant-derived fuel that is available on a renewable or recurring basis, including any such fuel which has been subject to a densification process (such as wood pellets).

For purposes of the provision, the term “building envelope improvement” means (1) any insulation material or system, including air barrier insulation, which is specifically and primarily designed to reduce the heat loss or gain of a dwelling unit when installed in or on such dwelling unit and meets the prescriptive criteria for such material or system established by the International Energy Conservation Code, as such Code (including supplements) is in effect on January 1 of the calendar year in which such material or system is installed, and (2) exterior doors and windows (including skylights) which received certification under applicable Energy Star program requirements which are in effect on January 1 of the calendar year in which the property is placed in service.²⁴

The term “dwelling unit” includes manufactured homes which conform to Federal Manufactured Home Construction and Safety Standards.

No credit is allowed for any amounts paid or incurred for which a deduction or credit allowed under any other provision of Chapter 1 of Subtitle A of the Code.

Effective Date

The provision is effective for any qualified property placed in service after December 31, 2021.

²⁴ A window treatment must meet or exceed applicable certification requirements for such product under the Attachments Energy Rating Council certification program to qualify as an energy efficient building envelope component.

**C. Enhancement of Energy Efficient Commercial Buildings Deduction
(sec. 303 of the bill and sec. 179D of the Code)**

Explanation of Provision

In general

The provision modifies the section 179D deduction for energy efficient commercial buildings.

Deduction amount

Under the provision, the maximum deduction is increased to equal (1) the product of the applicable dollar value and the square footage of the relevant building over (2) the aggregate amount of the deduction with respect to such building for the three prior years. The applicable dollar value is \$2.50 increased (but not above \$5.00) by \$0.10 for each percentage point by which the total annual energy and power costs for the building are certified to be reduced by a percentage greater than 25 percent.

Retrofits

The provision allows an election by the taxpayer to use Energy Star Portfolio Manager benchmarks, rather than Reference Standard 90.1 for certification of a retrofit plan as part of the requirement under 179D(c)(1)(D) for energy efficient commercial building property.

For this purpose, a qualified existing building is a building which was originally placed in service not less than five years before the establishment of the retrofit plan.

Multifamily buildings

The provision allows all multifamily housing structures to qualify for the 179D deduction, including multifamily housing structures that do not fall within the scope of Reference Standard 90.1. For multifamily housing structures to which Reference Standard 90.1 does not apply the Secretary and the Department of Energy shall provide a comparable standard.

Other modifications

The provision reduces from 50 percent to 25 percent the amount by which the certified plan under section 179D(c)(1)(D) must be designed to reduce the relevant building's total annual energy and power costs with respect to interior lighting systems, heating, cooling, ventilation, and hot water systems in comparison to a reference building which meets the minimum requirements of Reference Standard 90.1.

The provision modifies the rules governing the allocation of the deduction where the building is owned by a tax-exempt entity. The provision also expands these rules to cover additional types of entities. Under the provision, in the case of energy efficient commercial building property installed on or in property owned by an eligible entity, the Secretary shall promulgate regulations to allow the allocation of the deduction to the person primarily

responsible for designing the property in lieu of the owner of such property, with such person to be treated as the taxpayer for purposes of the deduction. For this purpose, the term “eligible entity” means a Federal, State, or local government or political subdivision thereof, an Indian tribe (as defined in section 45A(c)(6)), or an organization described in section 501(c) and exempt from tax under section 501(a).

The provision eliminates the interim rule for lighting systems in section 179D(f) and modifies the inflation adjustment so that the new deduction formula described above is adjusted for inflation starting after 2022, using 2021 as the base year.

The provision provides a special rule for a real estate investment trust’s earnings and profits to be reduced by any deductions for energy efficient commercial building property placed in service in the taxable year, in lieu of the five-year schedule under section 312(k)(3)(B).

Wage and workforce requirements

The provision adds wage and workforce requirements to the deduction for energy efficient commercial buildings. The taxpayer must ensure that any laborers and mechanics employed by contractors and subcontractors in the construction, alteration, or repair of property otherwise eligible for the deduction are paid wages at a rate not less than the prevailing wage 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.

No benefit is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the incentive by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

The taxpayer must also ensure that the qualified apprenticeship requirements (described in section VI.A of this document) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

Effective Date

The provision is effective for property placed in service after December 31, 2021.

**D. Enhancement of Energy Credit for Geothermal Heat Pumps
(sec. 304 of the bill and sec. 48 of the Code)**

Explanation of Provision

The provision increases the section 48 investment tax credit for geothermal heat pumps to 30 percent and removes the sunset date.

Effective Date

The provision is effective for property the construction of which begins after December 31, 2021.

**IV. TERMINATION AND MODIFICATION OF CERTAIN
FOSSIL FUEL PROVISIONS**

Summary of Certain Present Law Fossil Fuel Tax Incentives

The Code contains a number of tax incentives and special rules for fossil fuels and other energy-related activities. The following tables provide summaries of the relevant provisions.

Summary of Fossil Fuel Capital Cost Recovery Provisions		
Eligible Activity	Description of Provision	Expiration
Geological & geophysical expenditures (sec. 167(h))	<ul style="list-style-type: none"> • Geological and geophysical (“G&G”) expenditures (e.g., expenditures for geologists, seismic surveys, gravity meter surveys, and magnetic surveys) incurred by independent producers and smaller integrated oil companies in connection with domestic oil and gas exploration may be amortized over 24 months. • G&G expenditures incurred by major integrated oil companies are amortized over seven years. • No expensing of abandoned property (i.e., any remaining basis in the year of abandonment of a property must continue to be amortized over the remaining applicable amortization period). 	None
Alaska natural gas pipeline (secs. 168(e)(3)(C)(iii), 168(g)(3)(B), and 168(i)(16))	<ul style="list-style-type: none"> • A seven-year MACRS recovery period and a 22-year alternative depreciation system (“ADS”) recovery period is provided for any natural gas pipeline system (including the pipe, trunk lines, related equipment, and appurtenances used to carry natural gas, but not any gas processing plant) located in the State of Alaska that has a capacity of more than 500 billion Btu of natural gas per day, and either: <ul style="list-style-type: none"> ○ Is placed in service after December 31, 2013, or ○ The taxpayer elects to treat the system as placed in service on January 1, 2014 (to the extent the system was placed in service before January 1, 2014). 	None

Summary of Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Natural gas gathering lines (secs. 168(e)(3)(C)(iv), 168(g)(3)(B), and 168(i)(17))</p>	<ul style="list-style-type: none"> • A seven-year MACRS recovery period and 14-year ADS recovery period is provided for any natural gas gathering line the original use of which commences with the taxpayer after April 11, 2005. • A natural gas gathering line includes: <ul style="list-style-type: none"> ○ The pipe, equipment, and appurtenances determined to be a gathering line by the Federal Energy Regulatory Commission (“FERC”), and ○ The pipe, equipment, and appurtenances used to deliver natural gas from the wellhead or a common point to the point at which such gas first reaches: <ul style="list-style-type: none"> ▪ A gas processing plant, ▪ An interconnection with a transmission pipeline for which a certificate as an interstate transmission pipeline has been issued by FERC, ▪ An interconnection with an intrastate transmission pipeline, or ▪ A direct interconnection with a local distribution company, a gas storage facility, or an industrial consumer. 	<p style="text-align: center;">None</p>

Summary of Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Deduction for tertiary injectants (sec. 193)</p>	<ul style="list-style-type: none"> • Taxpayers engaged in petroleum extraction activities may generally deduct qualified tertiary injectant expenses injected during the taxable year as part of a tertiary recovery method. • A “qualified tertiary injectant expense” is any cost paid or incurred for any tertiary injectant (other than a recoverable hydrocarbon injectant) which is used as part of a tertiary recovery method. The cost of a recoverable hydrocarbon injectant (which includes natural gas, crude oil and any other injectant with more than an insignificant amount of natural gas or crude oil) is not a qualified tertiary injectant expense unless the amount of the recoverable hydrocarbon injectant in the qualified tertiary injectant is insignificant. • No deduction is permitted for expenditures for which a taxpayer has elected to deduct such costs under section 263(c) (intangible drilling costs) or if a deduction is allowed for such amounts under any other income tax provision. 	<p style="text-align: center;">None</p>
<p>Election to expense intangible drilling costs (secs. 263(c), 263(i), 291, and 638)</p>	<ul style="list-style-type: none"> • Taxpayers may elect to currently deduct intangible drilling costs (“IDCs”) paid or incurred with respect to the development of an oil or gas property located in the United States (including certain wells drilled offshore). • For an integrated oil company that has elected to expense IDCs, 30 percent of the IDCs on productive wells must be capitalized and amortized over a 60-month period. • In the case of IDCs paid or incurred with respect to an oil or gas well located outside of the United States, the taxpayer may elect to either (1) include the IDCs in adjusted basis for purposes of computing the amount of any deduction allowable for cost depletion, or (2) capitalize and amortize the IDCs ratably over a 10-year period beginning with the taxable year such costs were paid or incurred. 	<p style="text-align: center;">None</p>

Summary of Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Expensing for some or all exploration and development costs for coal mining (secs. 616, 617, and 291)</p>	<ul style="list-style-type: none"> • Taxpayers may currently deduct all expenditures paid or incurred during the taxable year for the development of a mine or other natural deposit (other than an oil or gas well) if paid or incurred after the existence of ores or minerals in commercially marketable quantities has been disclosed. • Taxpayers may also elect to deduct mining exploration expenditures that are paid or incurred before the beginning of the development stage of the mine. • Corporations are required to amortize 30 percent of the deductions ratably over 60 months beginning with the month in which the costs are paid or incurred. 	<p align="center">None</p>

Summary of Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Depletion (secs. 611-613A and 291)</p>	<ul style="list-style-type: none"> • Depletion is available to any person having an economic interest in a producing mine or oil and gas property (e.g., a working or royalty interest in an oil- or gas-producing property). There generally are two types of depletion: cost and percentage depletion. • Under the cost depletion method, the taxpayer deducts that portion of the adjusted basis of the depletable property which is equal to the ratio of units sold from that property during the taxable year relative to the number of units remaining as of the end of taxable year plus the number of units sold during the taxable year. • Under the percentage depletion method, a percentage, varying from five percent to 22 percent (generally 15 percent for oil and gas properties), of the taxpayer's gross income from a producing property is allowed as a deduction in each taxable year. The amount deducted generally may not exceed 50 percent (100 percent in the case of oil and gas properties) of the net income from the oil and gas property in any year (the "net-income limitation"). • Additionally, the percentage depletion deduction for all oil and gas properties may not exceed 65 percent of the taxpayer's overall taxable income for the year (determined before such deduction, as well as before any deduction allowable under section 199A, and adjusted for certain loss carrybacks and trust distributions). • Cost depletion is limited to the taxpayer's basis in the property, whereas percentage depletion is not limited by the basis, but is subject to limitations based on net income derived from the property and taxable income. • Percentage depletion for producing oil and gas property (15-percent rate) is available only to independent producers and royalty owners. Integrated oil and gas companies must use cost depletion. Generally, an integrated oil company is a producer of crude oil that engages in the refining or retail sale of petroleum products in excess of certain threshold amounts. 	<p>None</p>

Summary of Fossil Fuel Capital Cost Recovery Provisions

Eligible Activity	Description of Provision	Expiration
<p>Depletion (secs. 611-613A and 291) (cont'd)</p>	<ul style="list-style-type: none"> • Percentage depletion is also available for coal and lignite (10-percent rate) and oil shale (15-percent rate). The percentage depletion deduction for coal and lignite is generally reduced for corporations by an amount equal to 20 percent of the percentage depletion that exceeds the adjusted basis of the property. • Percentage depletion is not available to individuals where capital gains rates apply under section 631(c). 	<p align="center">None</p>

Summary of Fossil Fuel Capital Gains Treatment		
Eligible Activity	Description of Provision	Expiration
Capital gains treatment of certain coal royalties (sec. 631(c))	<ul style="list-style-type: none"> • In the case of the disposal of coal (including lignite) mined in the United States, held for more than one year prior to disposal, by the owner in a form under which the owner retains an economic interest in such coal, the excess of the amount realized from the sale over the adjusted depletable basis of the coal (plus certain disallowed deductions) is treated as from the sale of property used in the owner's trade or business (<i>i.e.</i>, the sale of section 1231 property). • If the owner's net section 1231 gains, including royalties from eligible coal disposals, exceed its section 1231 losses, the royalties are treated as capital gains. • Where individual capital gains rates apply, percentage depletion is not available. 	None

Summary of Energy Credits Related to Fossil Fuels

Eligible Activity	Description	Credit Amount	Expiration
Enhanced oil recovery (“EOR”) credit (sec. 43)	<ul style="list-style-type: none"> • Credit for expenses associated with an EOR project • An EOR project is generally a project that involves the use of one or more tertiary recovery methods to increase the amount of recoverable domestic crude oil. 	<ul style="list-style-type: none"> • 15 percent of enhanced oil recovery costs (subject to a phaseout based on the price of oil) 	None
Marginal wells credit (sec. 45I)	Production credit for marginal wells or wells that have an average daily production of not more than 25 barrels per day	<ul style="list-style-type: none"> • \$3-per-barrel credit (adjusted for inflation from 2004) for the production of crude oil from marginal wells (subject to a phaseout based on the price of oil) • \$0.50-per-1,000-cubic-foot credit (adjusted for inflation from 2004) for the production of natural gas from a marginal well (subject to a phaseout based on the price of natural gas) 	None
Indian coal credit (sec. 45)	Production credit for coal produced from reserves that on June 14, 2005, were owned by (or held in trust on behalf of) an Indian tribe	<ul style="list-style-type: none"> • \$2-per-ton credit (adjusted for inflation; \$2.60 per ton for 2021) 	January 1, 2022

Summary of Energy Credits Related to Fossil Fuels

Eligible Activity	Description	Credit Amount	Expiration
<p>Advanced coal project credit (sec. 48A)</p>	<ul style="list-style-type: none"> • Investment credit for projects that use integrated gasification combined cycle (“IGCC”) or other advanced coal-based electricity generation technologies • Credits are allocated by the Secretary. • First round allocations are capped at \$800 million for IGCC projects and \$500 million for other projects. • Second round allocations are capped at \$1.25 billion. • Second round projects must generally sequester 65% of total CO₂ emissions (70% in the case of reallocated credits). 	<ul style="list-style-type: none"> • 20 percent for first round IGCC projects • 15 percent for other first round projects • 30 percent for second round projects 	<p align="center">None</p> <p>Approximately \$2 billion of credits will be reallocated in 2021 due to forfeiture of the initial allocations.</p>

Summary of Energy Credits Related to Fossil Fuels

Eligible Activity	Description	Credit Amount	Expiration
<p>Gasification credit (sec. 48B)</p>	<ul style="list-style-type: none"> • Investment credit for qualified projects that use gasification technology • Qualified projects convert coal, petroleum residue, biomass, or other materials recovered for their energy content into a synthesis gas for direct use or subsequent chemical or physical conversion • Credits are allocated by the Secretary • First round allocations are capped at \$350 million • Second round allocations are capped at \$250 million • First round projects are generally limited to industrial applications; second round projects include projects designed to produce motor fuels • Second round projects must generally sequester 65 percent of total CO₂ emissions • All credits have been fully allocated 	<ul style="list-style-type: none"> • 20 percent for first round • 30 percent for second round 	<p>None, but the credit has effectively expired</p>

Summary of Certain Other Energy Provisions Related to Fossil Fuels

Eligible Activity	Description of Provision	Expiration
<p>Passive loss rules for working interests in oil and gas property (sec. 469)</p>	<ul style="list-style-type: none"> • Passive activity loss rules not applicable to working interest in any oil or gas property that taxpayer holds directly or indirectly through an entity that does not limit the taxpayer’s liability. • Losses and credits from such interests, in general, may offset income from other activities of taxpayer. 	<p>None</p>
<p>Certain publicly traded partnerships treated as corporations (secs. 7704 and 851)</p>	<ul style="list-style-type: none"> • General rule that a publicly traded partnership is taxed as a corporation is not applicable if 90 percent or more of gross income is interest, dividends, real property rents, or certain other types of qualifying income. • Other types of qualifying income include income and gains from certain activities with respect to minerals or natural resources. 	<p>None</p>
<p>Dual capacity taxpayers (sec. 901)</p>	<ul style="list-style-type: none"> • In general, a taxpayer receives a credit against U.S. taxes for income taxes paid to a foreign country related to economic activity in that country. Royalties paid to a foreign country for extracting oil and gas from that country are not creditable against U.S. taxes. • A dual capacity taxpayer is a taxpayer that is subject to a foreign levy and also receives a specific economic benefit from the foreign country (<i>e.g.</i>, pays a tax to an oil exporting country and receives a license to extract oil and gas from that country). • Dual capacity taxpayers may use either a safe harbor or facts and circumstances method to establish that a foreign levy is a creditable tax and not a royalty-like payment for a specific economic benefit from the foreign country. • The taxpayer need not establish that the foreign country generally imposes an income tax to establish a levy is a creditable tax. 	<p>None</p>

Summary of Certain Other Energy Provisions Related to Fossil Fuels

Eligible Activity	Description of Provision	Expiration
<p>Global intangible low-taxed income rules for foreign oil and gas extraction income (secs. 907(c)(1) and 951A(c)(2)(A)(i)(V))</p>	<ul style="list-style-type: none"> • For purposes of determining global intangible low-taxed income included in gross income of U.S. shareholders, tested income excludes any foreign oil and gas extraction income of the controlled foreign corporation. • “Foreign oil and gas extraction income” means the taxable income derived from sources without the United States and its possessions from (A) the extraction (by the taxpayer or any other person) of minerals from oil or gas wells or (B) the sale or exchange of assets used by the taxpayer in the trade or business described in (A). Any passive dividend or interest income (as defined in sec. 904(d)(2)(A)) is excluded. 	<p align="center">None</p>
<p>Foreign base company oil related income (sec. 954)</p>	<ul style="list-style-type: none"> • Certain passive and readily movable income of a foreign corporation that is controlled by U.S. shareholders is currently taxable to those U.S. shareholders (“subpart F income”). • Prior to 2018, subpart F income included foreign base company oil related income. 	<p align="center">None</p>
<p>Oil Spill Liability Trust Fund tax (sec. 4611)</p>	<ul style="list-style-type: none"> • A 9-cents-per-barrel Oil Spill Liability Trust Fund excise tax is imposed on crude oil received at refineries or imported petroleum products. 	<p align="center">December 31, 2025</p>

A. Termination of Provisions Relating to Oil, Gas, and Other Materials

1. Amortization of G&G expenditures (sec. 401(a) of the bill and sec. 167(h) of the Code)

Explanation of Provision

The provision sunsets the 24-month amortization period (seven-year amortization period in the case of major integrated oil companies) for G&G expenditures provided by section 167(h).

Once the 24-month amortization period assigned by the Code sunsets, taxpayers will generally be required to allocate G&G expenditures to the cost of the property acquired, retained, or abandoned, and recover such costs over the life of such property or in the year of abandonment of the property.²⁵

Effective Date

The provision is effective for expenses paid or incurred during any taxable year beginning after the date of enactment.

2. Alaska natural gas pipelines (sec. 401(b) of the bill and sec. 168(i)(16) of the Code)

Explanation of Provision

The provision sunsets the seven-year MACRS and 22-year ADS recovery periods for Alaska natural gas pipelines.

Once the seven-year MACRS and 22-year ADS recovery periods assigned by the Code sunset, the applicable recovery period for Alaska natural gas pipelines will be determined under Revenue Procedure 87-56, which dictates the applicable recovery period for an asset based on its class life.²⁶ Asset class 46.0 of Revenue Procedure 87-56, describing pipeline transportation, provides a 22-year class life, 15-year MACRS recovery period, and 22-year ADS recovery period for applicable assets, which include natural gas pipelines.

Effective Date

The provision is effective for property placed in service on or after the end of the calendar year that includes the date of enactment.

²⁵ See secs. 263(a) and 165; Treas. Reg. secs. 1.263(a)-1 and 1.263(a)-3(l); Rev. Rul. 77-188, 1977-1 C.B. 76; and Rev. Rul. 83-105, 1983-2 C.B. 51.

²⁶ Exercising authority granted by Congress, the Secretary issued Rev. Proc. 87-56, 1987-2 C.B. 674, laying out the framework of recovery periods for enumerated classes of assets. The Secretary clarified and modified the list of asset classes in Rev. Proc. 88-22, 1988-1 C.B. 785. In November 1988, Congress revoked the Secretary's authority to modify the class lives of depreciable property. Rev. Proc. 87-56, as modified, remains in effect except to the extent that the Congress has, since 1988, statutorily modified the recovery period for certain depreciable assets, effectively superseding any administrative guidance with regard to such property.

3. Natural gas gathering lines (sec. 401(c) of the bill and sec. 168(i)(17) of the Code)

Explanation of Provision

The provision sunsets the seven-year MACRS and 14-year ADS recovery periods for natural gas gathering lines.

Once the seven-year MACRS and 14-year ADS recovery periods assigned by the Code sunset, the applicable recovery period for natural gas gathering lines will be determined under Revenue Procedure 87-56. Revenue Procedure 87-56 includes two asset classes under which natural gas gathering lines could be classified. Asset class 13.2, describing assets used in the exploration for and production of petroleum and natural gas deposits, provides a 14-year class life, seven-year MACRS recovery period, and 14-year ADS recovery period for applicable assets, which include natural gas gathering lines used by producers of petroleum and natural gas. Asset class 46.0, describing pipeline transportation, provides a 22-year class life, 15-year MACRS recovery period, and 22-year ADS recovery period for assets used in the private, commercial, and contract carrying of petroleum, gas and other products by means of pipes and conveyors, including the trunk lines and related storage facilities of integrated petroleum and natural gas producers. In the case of natural gas gathering lines not eligible for present law section 168(e)(3)(C)(iv) (*e.g.*, because the original use did not commence with the taxpayer after April 11, 2005), certain appellate courts have held that such natural gas gathering lines owned by nonproducers and used for the benefit of producers fell within the scope of Asset class 13.2 (*i.e.*, with a seven-year MACRS recovery period).²⁷ The appellate court in each case reversed a lower court holding that natural gas gathering lines owned by nonproducers fell within the scope of Asset class 46.0 (*i.e.*, with a 15-year MACRS recovery period).

Effective Date

The provision is effective for property placed in service on or after the end of the calendar year that includes the date of enactment.

4. Repeal of deduction for tertiary injectants (sec. 401(d) of the bill and sec. 193 of the Code)

Explanation of Provision

The provision sunsets the deduction for tertiary injectants under section 193.

Once section 193 sunsets, the treatment of tertiary injectant expenses might include capitalization and recovery through depreciation, capitalization and recovery as consumed (*e.g.*, as a supply), or deduction as a loss in the year of abandonment or the year production benefits

²⁷ See *Clajon Gas Co, L.P. v. Commissioner*, 354 F.3d 786 (8th Cir. 2004), *rev'g* 119 T.C. 197 (2002); *Saginaw Bay Pipeline Co. v. United States*, 338 F.3d 600 (6th Cir. 2003), *rev'g* 88 A.F.T.R.2d 2001-6019 (E.D. Mich. 2001); *Duke Energy v. Commissioner*, 172 F.3d 1255 (10th Cir. 1999), *rev'g* 109 T.C. 416 (1997), *nonacq.* 1999-2 C.B.1. See also *True v. United States*, 97-2 USTC ¶50,946 (D. Wyo. 1997), *aff'd in part, rev'd in part, and remanded on other issues*, 190 F.3d 1165 (10th Cir. 1999).

cease. Amounts expensed as depreciation, depletion, or supplies may be subject to capitalization under section 263A.²⁸

Effective Date

The provision is effective for expenditures paid or incurred during any taxable year beginning after the date of enactment.

5. IDCs in the case of oil and gas wells and geothermal wells (sec. 401(e) of the bill and sec. 263(c) of the Code)

Explanation of Provision

The provision requires IDCs paid or incurred by a taxpayer with regard to any oil or gas well located in the United States (including certain wells drilled offshore) to be capitalized and amortized ratably over 60 months beginning with the month in which the costs are paid or incurred. The provision also treats any such amortization deduction as an IDC deduction for purposes of section 1254.

Effective Date

The provision is effective for amounts paid or incurred in any taxable year beginning after the date of enactment.

6. Percentage depletion of oil and gas wells, coal, lignite, and oil shale (sec. 401(f) of the bill and sec. 613 of the Code)

Explanation of Provision

The provision sunsets the use of percentage depletion for oil and gas wells, coal, lignite, and oil shale.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

7. Termination of capital gains treatment for royalties from coal (sec. 401(g) of the bill and sec. 631(c) of the Code)

Explanation of Provision

The provision sunsets the capital gains treatment for royalties from coal provided by section 631.

²⁸ See, e.g., Treas. Reg. sec. 1.263A-1(e)(3).

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

8. Enhanced oil recovery credit (sec. 401(h) of the bill and sec. 43 of the Code)

Explanation of Provision

The provision repeals the enhanced oil recovery credit provided by section 43.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

9. Credit for producing oil and gas from marginal wells (sec. 401(i) of the bill and sec. 45I of the Code)

Explanation of Provision

The provision repeals the credit for producing oil and gas from marginal wells provided by section 45I.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

10. Qualifying advanced coal project credit (sec. 401(j) of the bill and sec. 48A of the Code)

Explanation of Provision

The provision repeals the credit for qualifying advanced coal projects provided by section 48A.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

11. Qualifying gasification project credit (sec. 401(k) of the bill and sec. 48B of the Code)

Explanation of Provision

The provision repeals the credit for qualifying gasification projects provided by section 48B.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

12. Repeal of passive loss exception for oil and gas interests (sec. 401(l) of the bill and sec. 469 of the Code)

Explanation of Provision

The provision repeals the exception from the limitation on passive activity losses and credits in the case of a working interest in oil and gas property. Under the provision, a passive activity can include a working interest in any oil and gas property that the taxpayer holds directly or through an entity that does not limit the taxpayer's liability with respect to that interest. Thus, losses and credits with respect to a working interest in oil and gas property can be subject to limitation if the taxpayer does not materially participate in the activity.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

If a loss from a working interest in oil and gas property was treated as not from a passive activity in a taxable year beginning on or before the date of enactment by reason of section 469(c)(3)(A) before its repeal, then any net income from such property (or any property the basis of which is determined in whole or in part by reference to the basis of such property) in a taxable year beginning after the date of enactment is treated as income of the taxpayer that is not from a passive activity. A related rule applies in the case of any credits allowable in a taxable year beginning after the date of enactment under Subpart B (other than section 27) or D of part IV of subchapter A of the Code. Under the related rule, if net income from a working interest in oil and gas property was treated as not from a passive activity in a taxable year beginning on or before the date of enactment by reason of section 469(c)(3)(A) before its repeal, such credits are treated as credits not from a passive activity to the extent the amount of such credits does not exceed the regular tax liability of the taxpayer for the taxable year that begins after the date of enactment and that is allocable to such net income.

13. Repeal of corporate income tax exemption for publicly traded partnerships with qualifying income and gains from activities relating to fossil fuels (sec. 401(m) of the bill and sec. 7704 of the Code)

Explanation of Provision

The provision repeals the treatment of income from pipelines transporting gas or oil and products thereof as qualifying income of publicly traded partnership. The provision also excludes coal, gas, oil, or products thereof from the definition of a mineral or natural resource. As a result, a partnership with income and gains from these activities may be treated as a corporation for Federal tax purposes.

Effective Date

The provision is effective for taxable years beginning after the date of enactment.

B. Modification of Certain Provisions Relating to Oil, Gas, and Other Fossil Fuels

1. Modifications of foreign tax credit rules applicable to major integrated oil companies which are dual capacity taxpayers (sec. 402(a) of the bill and new sec. 901(n) of the Code)

Explanation of Provision

The provision denies a foreign tax credit for certain levies paid or accrued by a dual capacity taxpayer that is a major integrated oil company²⁹ to a foreign country or possession of the United States. Any such levy is not considered a tax to the extent such levy exceeds the amount that the dual capacity taxpayer pays or would pay under a generally applicable income tax imposed by the foreign country or possession. If the foreign country or possession does not impose a generally applicable income tax, no levy paid or accrued to the foreign country or possession is considered a tax.

For this purpose, a generally applicable income tax is an income tax (or series of income taxes) which is generally imposed under the laws of the foreign country or possession on income derived from the conduct of a trade or business within such country or possession. Such a tax is a generally applicable income tax only if the tax has substantial application, by its terms and in practice, to persons who are not dual capacity taxpayers and persons who are citizens or residents of the foreign country or possession.

The provision would not apply to the extent contrary to any treaty obligation of the United States.

Effective Date

The provision is effective for taxes paid or accrued in taxable years beginning after the date of enactment.

2. Reinstatement of treatment of foreign base company oil related income as foreign base company income (sec. 402(b) of the bill and new sec. 954(a)(4) and (g) of the Code)

Explanation of Provision

The provision reinstates the treatment of foreign base company oil related income (“FBCORI”) as foreign base company income. Thus, under the provision, FBCORI is foreign oil related income other than income derived from a source within a foreign country in connection with (A) oil or gas which was extracted from an oil or gas well located in such foreign country, or (B) oil, gas, or a primary product of oil or gas which is sold by the foreign corporation or a related person for use or consumption within such country or is loaded in such country on a vessel or aircraft as fuel for such vessel or aircraft. In addition, FBCORI excludes income of a foreign corporation that is not a large oil producer for the taxable year. For this purpose, a large oil producer is any corporation if, for the taxable year or the preceding taxable

²⁹ Within the meaning of section 167(h)(5).

year, the average daily production of foreign crude oil and natural gas of the related group which includes such corporation equaled or exceeded 1,000 barrels.

Effective Date

The provision is effective for taxable years of foreign corporations beginning after the date of the enactment, and to taxable years of U.S. shareholders with or within which such taxable years of foreign corporations end.

3. Inclusion of foreign oil and gas extraction income in tested income for purposes of determining global intangible low-taxed income (sec. 402(c) of the bill and sec. 951A(c)(2)(A)(i)(V) of the Code)

Explanation of Provision

The provision repeals the exclusion from tested income of foreign oil and gas extraction income for purposes of determining global intangible low-taxed income.

Effective Date

The provision is effective for taxable years of foreign corporations beginning after the date of the enactment, and to taxable years of U.S. shareholders with or within which such taxable years of foreign corporations end.

4. Modification of Oil Spill Liability Trust Fund excise tax (sec. 402(d) of the bill and sec. 4612(a) of the Code)

Explanation of Provision

The provision expands the definition of crude oil to include crudes that are produced from bituminous deposits and received at a U.S. refinery, entered into the United States, or used or exported after December 31, 2021. This expansion is intended to encompass crude oil from tar sands and oil shale.

Effective Date

The provision is effective for crudes received, entered, used or exported after December 31, 2021.

V. WORKFORCE DEVELOPMENT REQUIREMENTS

A. Use of Qualified Apprentices (sec. 501 of the bill)

Present Law

Under present law there are no requirements for a taxpayer to use apprentices to perform labor in order to qualify for a tax benefit. However, there are some tax preferences related to education that may benefit individuals participating in apprenticeship programs.

529 Plans

A qualified tuition program (often referred to as a “529 plan”) is a program established and maintained by a State or agency or instrumentality thereof, or by one or more eligible educational institutions, which satisfies certain requirements and under which a person may purchase tuition credits or certificates on behalf of a designated beneficiary that entitle the beneficiary to the waiver or payment of qualified higher education expenses of the beneficiary (“prepaid tuition contract”). In the case of a program established and maintained by a State or agency or instrumentality thereof, a qualified tuition program also includes a program under which a person may make contributions to an account that is established for the purpose of satisfying the qualified higher education expenses of the designated beneficiary of the account, provided it satisfies certain specified requirements (“tuition savings account”). Section 529 provides specified income tax and transfer tax rules for the treatment of accounts and contracts established under qualified tuition programs. Under both types of qualified tuition programs, a contributor establishes an account for the benefit of a particular designated beneficiary to provide for that beneficiary’s qualified higher education expenses.

Distributions for the purpose of meeting the designated beneficiary’s higher education expenses are generally not subject to tax. For purposes of receiving a distribution from a qualified tuition program that qualifies for this favorable tax treatment, the term qualified higher education expenses means tuition, fees, books, supplies, and equipment required for the enrollment or attendance of a designated beneficiary at an eligible educational institution, and expenses for special needs services in the case of a special needs beneficiary that are incurred in connection with such enrollment or attendance. Qualified higher education expenses generally also include room and board for students who are enrolled at least half-time. Qualified higher education expenses include the purchase of any computer technology or equipment, or Internet access or related services, if such technology or services are to be used primarily by the beneficiary during any of the years a beneficiary is enrolled at an eligible institution.

Qualified higher education expenses for purposes of distributions also include: (1) expenses for tuition in connection with enrollment or attendance at an elementary or secondary public, private, or religious school (up to \$10,000 per year), (2) amounts used to make payments on principal or interest on a qualified education loan (up to \$10,000 per individual, in aggregate, over the individual’s lifetime), and (3) expenses for fees, books, supplies, and equipment required for the participation of a designated beneficiary in an apprenticeship program. The

apprenticeship program must be registered and certified with the Secretary of Labor under section 1 of the National Apprenticeship Act.³⁰

Lifetime learning credit

Taxpayers may be eligible to claim a nonrefundable credit, the Lifetime Learning credit, against Federal income taxes equal to 20 percent of qualified tuition and related expenses paid by the taxpayer during the taxable year on behalf of the taxpayer, the taxpayer's spouse, or any dependents. Up to \$10,000 of qualified tuition and related expenses per taxpayer return are eligible for the Lifetime Learning credit (*i.e.*, the maximum credit per taxpayer return is \$2,000).

Qualified tuition and related expenses generally include tuition and fees required for enrollment or attendance of the taxpayer, the taxpayer's spouse, or any dependent of the taxpayer with respect to any course of instruction at an eligible educational institution to acquire or improve job skills of such individual.

A taxpayer may claim the Lifetime Learning credit for an unlimited number of taxable years and the maximum amount of the Lifetime Learning credit that may be claimed on a taxpayer's return does not vary based on the number of students in the taxpayer's family. The Lifetime Learning credit amount that a taxpayer may otherwise claim is phased out ratably for taxpayers with modified adjusted gross income ("AGI") between \$80,000 and \$90,000 (\$160,000 and \$180,000 for married taxpayers filing a joint return) in 2021.

The Lifetime Learning credit is available in the taxable year the expenses are paid, subject to the requirement that the education is furnished to the student during that year or during an academic period beginning during the first three months of the next taxable year. Qualified tuition and related expenses paid with the proceeds of a loan generally are eligible for the Lifetime Learning credit. However, repayment of a loan is not a qualified tuition expense.

A taxpayer may claim the Lifetime Learning credit with respect to a student who is not the taxpayer or the taxpayer's spouse (*e.g.*, in cases in which the student is the taxpayer's child) only if the taxpayer claims the student as a dependent for the taxable year for which the credit is claimed. If a student is claimed as a dependent by a parent or other taxpayer, the student may not claim the Lifetime Learning credit for that taxable year on the student's own tax return. If a parent (or other taxpayer) claims a student as a dependent, any qualified tuition and related expenses paid by the student are treated as paid by the parent (or other taxpayer) for purposes of the provision.

Exclusions for employer-provided educational assistance

Educational assistance programs

If certain requirements are satisfied, up to \$5,250 annually of educational assistance provided by an employer to an employee is excludable from the employee's gross income for

³⁰ 29 U.S.C. sec. 50.

income tax purposes and from wages for employment tax purposes.³¹ The educational assistance must be provided pursuant to a separate written plan of the employer. The employer's educational assistance program must not discriminate in favor of highly compensated employees. In addition, no more than five percent of the amounts paid or incurred by the employer during the year for educational assistance under a qualified educational assistance program can be provided for the class of individuals consisting of more-than-five-percent owners of the employer and the spouses or dependents of such more-than-five-percent owners.

For purposes of this exclusion, educational assistance means the payment by an employer of expenses incurred by or on behalf of the employee for education of the employee including, but not limited to, tuition, fees, and similar payments, books, supplies, and equipment. Educational assistance also includes the provision by the employer of courses of instruction for the employee (including books, supplies, and equipment). Educational assistance does not include (1) tools or supplies that may be retained by the employee after completion of a course, (2) meals, lodging, or transportation, and (3) any education involving sports, games, or hobbies. The exclusion for employer-provided educational assistance applies only with respect to education provided to the employee (*i.e.*, it does not apply to education provided to the spouse or a child of the employee).

Working condition fringe benefit

In the absence of the specific exclusion for employer-provided educational assistance under section 127, employer-provided educational assistance is excludable from gross income and wages if the education expenses qualify as a working condition fringe benefit.³² A deduction for education expenses generally is allowed under section 162 and therefore is considered a working condition fringe benefit when paid or provided by an employer if the education or training (1) maintains or improves a skill required in a trade or business currently engaged in by the taxpayer, or (2) meets the express requirements of the taxpayer's employer, or requirements of applicable law or regulations, imposed as a condition of continued employment.³³ Education expenses are not deductible if they relate to certain minimum educational requirements or to education or training that enables a taxpayer to begin working in a new trade or business. These education expenses provided by an employer to an employee that qualify as a working condition fringe benefit are excludable from the employee's gross income. Unlike a qualified educational assistance program, there is no dollar cap, written plan requirement, or nondiscrimination requirement for educational expenses that qualify as a working condition fringe benefit.

Explanation of Provision

The provision requires that at least 15 percent of total labor hours of construction, alteration, or repair work on any applicable project be performed by qualified apprentices. In

³¹ Secs. 127 and 3121(a)(18).

³² Sec. 132(d).

³³ Treas. Reg. sec. 1.162-5.

addition, the ratio of apprentice-to-journeyworker³⁴ must meet the standard set by the Department of Labor or applicable State apprenticeship agency. Also, any contractor and subcontractor who employs four or more individuals to perform construction, alteration, or repair work on an applicable project is required to employ at least one qualified apprentice to perform such work. Exceptions from these requirements are provided for taxpayers that demonstrate a lack of available qualified apprentices in the geographic area of the construction, alteration, or repair work and make a good faith effort to comply with the requirements of the provision.

Labor hours are the total number of hours devoted to construction, alteration, or repair work by employees of the contractor or subcontractor and excludes certain hours worked by managers or owners.³⁵

An applicable project is qualified alternative fuel vehicle refueling property (including modifications),³⁶ certain qualified facilities (for purposes of the modified credit for carbon oxide sequestration,³⁷ new clean electricity production credit,³⁸ new clean electricity investment credit,³⁹ new clean fuel production credit,⁴⁰ and new clean hydrogen production credit⁴¹), grid improvement property,⁴² energy efficient commercial building property,⁴³ or eligible property⁴⁴ for which a credit is allowed under the relevant Code sections.

A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.⁴⁵

If an applicable project fails to satisfy these requirements, the taxpayer must pay the IRS a penalty equal to \$500 per hour of apprenticeship requirement that has not been met, not to

³⁴ In general, a journeyworker is a worker who has attained a level of skill, abilities and competencies recognized within an industry as having mastered the skills and competencies required for the occupation.

³⁵ Labor hours exclude hours worked by foremen, superintendents, owners, or persons employed in an executive, administrative, or professional capacity (within the meaning of 29 C.F.R. part 541).

³⁶ As defined under sec. 202(b) of the bill, the alternative fuel refueling property credit.

³⁷ As defined under sec. 103(d) of the bill, the carbon oxide sequestration credit.

³⁸ As defined under sec. 101 of the bill, the clean electricity production credit.

³⁹ As defined under sec. 102(a) of the bill, the clean electricity investment credit.

⁴⁰ As defined under sec. 201 of the bill, the clean fuel production credit.

⁴¹ As defined under sec. 203 of the bill, the credit for production of clean hydrogen.

⁴² As defined under sec. 102(a) of the bill, the clean electricity investment credit.

⁴³ As defined under sec. 303 of the bill, the energy efficient commercial buildings deduction.

⁴⁴ As defined under sec. 601 of the bill, the qualifying advanced energy project credit.

⁴⁵ Registered apprenticeship program as defined in sec. 3131(e)(3)(B).

exceed the value of the tax benefit, unless the taxpayer demonstrates a lack of available qualified apprentices in the geographic area of the construction, alteration, or repair work and has made a good faith effort to comply with the requirements of the provision.

Effective Date

The provision is effective on date of enactment. The requirement for work performed by qualified apprentices on applicable projects applies to each relevant credit according to the effective dates described elsewhere in this document.

VI. MISCELLANEOUS

**A. Adjustment of Qualifying Advanced Energy Project Credit
(sec. 601 of the bill and sec. 48C of the Code)**

Present Law

Eligible Activity	Description	Credit Amount	Expiration
Advanced energy project credit (sec. 48C)	<ul style="list-style-type: none"> • Investment credit for qualified projects that re-equip, expand, or establish a manufacturing facility for the production of specified energy related products • Credits are allocated by the Secretary and are capped at \$2.3 billion • All credits have been fully allocated 	30 percent	None

Explanation of Provision

In general

Under the provision, the 30-percent credit for investment in qualified property used in a qualified advanced energy manufacturing project is modified as follows. The credit rate is reduced by any subsidized financing under rules similar to the rules of section 48(a)(4).

Qualified advanced energy projects

A qualified advanced energy project is a project that re-equips, expands, or establishes a manufacturing or industrial facility for the production or recycling of: (1) property designed to be used to produce energy from the sun, water, geothermal deposits, or other renewable resources; (2) fuel cells, microturbines, or energy storage systems and components; (3) electric grid modernization equipment or components; (4) property designed to remove, use, or sequester carbon oxide emissions; (5) equipment designed to refine, electrolyze, or blend any fuel, chemical, or product which is (a) renewable or (b) low-carbon and low-emission; (6) property designed to produce energy conservation technologies (including for residential, commercial, and industrial applications); (7) electric or fuel cell vehicles and (a) technologies, components, or materials for such vehicles and (b) associated charging or refueling infrastructure; (8) hybrid vehicles with a gross vehicle weight rating of not less than 14,000 pounds as well as technologies, components, or materials for such vehicles; or (9) other advanced energy property designed to reduce greenhouse gas emissions as may be determined by the Secretary.

A qualifying advanced energy project also includes a project that re-equips an industrial or manufacturing facility with equipment designed to reduce its greenhouse gas emissions well

below current best practices through the installation of (1) low- or zero-carbon process heat systems, (2) carbon capture, transport, utilization and storage systems, (3) energy efficiency and reduction in waste from industrial processes, or (4) any industrial technology which significantly reduces greenhouse gas emissions, as determined by the Secretary.

Qualified property must be depreciable (or amortizable) property used in a qualified advanced energy project. Only tangible personal property and other tangible property (not including a building or its structural components) are credit-eligible. The basis of qualified property must be reduced by the amount of credit received.

Certification

Credits are available only for projects certified by the Secretary of Treasury, in consultation with the Secretary of Energy. The Secretary of Treasury must establish a certification program no later than 180 days after the date of enactment this provision. The provision provides an additional allocation of \$8 billion in credits, of which not more than \$4 billion may be allocated to projects that are not in a census tract that (1) prior to the date of enactment of this provision, had no projects that received a certification or allocation of credits under 48C(d) and (2) had a coal mine close after December 31, 1999, had a coal-fired electric generating unit retired after December 31, 2009, or is immediately adjacent to one such census tract. No credit is allowed for any qualified investment that was allowed a credit under sections 45Q, 48, 48A, 48B, or 48D.

In selecting projects, the Secretary may consider only those projects where there is a reasonable expectation of commercial viability and which will ensure that any laborers and mechanics employed by contractors and subcontractors in the construction, alteration, or repair of such projects are paid wages at a rate not less than the prevailing wage 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 and that the qualified apprenticeship requirements (described section 501 of the bill) are satisfied by ensuring that not less than 15 percent of the total labor hours are performed by qualified apprentices.

No benefit is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the incentive by paying any affected workers the difference between the actual compensation paid to such workers and the wages required to be paid to those workers to meet prevailing wage requirements, plus any applicable interest. In addition, such taxpayer must also pay a penalty to the IRS equal to \$5,000 per affected worker.

In addition, the Secretary must consider other selection criteria, including which projects (1) will provide the greatest net impact in avoiding or reducing anthropogenic emissions of greenhouse gases (or, in the case of a fuel cell, microturbine, or energy storage system and component project, will provide the greatest reduction of greenhouse gas emissions compared to current best practices), (2) will provide the greatest domestic job creation during the credit period, (3) will provide the greatest job creation within the vicinity of the project, particularly with respect to low-income communities⁴⁶ and dislocated workers previously employed in

⁴⁶ Within the meaning of sec. 45D(e).

manufacturing, coal power plants, or coal mining, (4) have the greatest potential for technological innovation and commercial deployment, (5) have the lowest levelized cost of generated or stored energy, or of measured reduction in energy consumption or greenhouse gas emission, and (6) have the shortest project time from certification to completion.

Each project application must be submitted during the three-year period beginning on the date such certification program is established. An applicant for certification has 18 months from the date the Secretary accepts the application to provide the Secretary with evidence that the requirements for certification have been met. The Secretary has up to 180 days after the date such evidence was provided by the applicant to determine whether the requirements of certification have been met. Upon certification, the applicant has three years from the date of issuance of the certification to place the project in service. An applicant's certification is invalid if the Secretary determines the project has been placed in a location materially different than the location specified in the application for such project.

The Secretary of Energy shall provide technical assistance to any States, localities, Tribes, or economic development organization which prior to the date of enactment of this Act had no applicants for certification or had less than two qualifying advanced energy projects receive an allocation under the qualifying advance energy project program. \$500,000 is authorized to be appropriated to the State Energy Program of the Department of Energy to provide this assistance.

Election for direct payment

Taxpayers may elect to have the tax credits otherwise allowed under this provision be treated as payments made by the taxpayer against the tax imposed by Chapter 1 of the Code, regardless of whether such tax would have been imposed. Such an election is irrevocable and must be made at the time of application in such manner as the Secretary may prescribe. Such payments would be in lieu of any tax credits determined under the provision.

Tax-exempt entities, real estate investment trusts, rural electric cooperatives, and utilities owned by State, local, tribal governments can elect and receive direct payments.

Secretary's authority to request information

As a condition of, and prior to, receiving a direct payment, the Secretary may require such information as the Secretary deems necessary to prevent duplication, fraud, and any other improper payments.

Excessive amount penalty

Any portion of a direct payment made under this provision which constitutes an excessive amount may be assessed and collected as if it were a tax and as if the person who made the claim were liable for such tax. If any claim for payment is made for an excessive amount, unless it is shown that the claim is due to reasonable cause, the person making such claim shall be liable for a penalty in an amount equal to 20 percent of the excessive amount. The term "excessive amount" means the amount by which the amount of the claim for payment exceeds the amount of such claim allowable under the provision for the taxable year.

Report and reallocation

Not later than four years after the date of enactment of the credit, the Secretary is required to review the credit allocations and submit a report regarding credit allocations to the Committees on Finance and Energy and Natural resources in the Senate and the Committees on Ways and Means and Energy and Commerce of the House of Representatives. The Secretary may redistribute any credits that were not used either because of a revoked certification or because of an insufficient quantity of credit applications. Credits which are reallocated are not subject to the census tract limitation rule described above.

Effective Date

The provision is effective for property placed in service after December 31, 2021.

**B. Issuance of Exempt Facility Bonds for Qualified
Carbon Dioxide Capture Facilities
(sec. 602 of the bill and sec. 142 of the Code)**

Present Law

Qualified private activity bonds are tax-exempt private activity bonds issued to provide financing for specified privately used facilities. The definition of a qualified private activity bond includes an exempt facility, qualified mortgage, veterans' mortgage, small issue, redevelopment, 501(c)(3), or student loan bond.⁴⁷

Exempt facility bonds are often used to finance infrastructure projects. To qualify as an exempt facility bond, 95 percent or more of the net proceeds must be used to finance an eligible facility.⁴⁸ Facilities eligible for this financing include the following:

- Airports,
- Ports (docks and wharves),
- Mass commuting facilities,
- Facilities for the furnishing of water,
- Sewage facilities,
- Solid waste disposal facilities,
- Qualified residential rental projects,
- Facilities for the local furnishing of electric energy or gas,
- Local district heating or cooling facilities,
- Qualified hazardous waste facilities,
- High-speed intercity rail facilities,
- Environmental enhancements of hydro-electric generating facilities,
- Qualified public educational facilities,
- Qualified green building and sustainable design projects, and
- Qualified highway or surface freight transfer facilities.⁴⁹

Qualified private activity bonds are subject to a number of eligibility restrictions that do not apply to governmental bonds. For example, the aggregate volume of most qualified private activity bonds is restricted by annual State volume limitations (the "State volume cap").

⁴⁷ Sec. 141(e).

⁴⁸ Sec. 142(a).

⁴⁹ Sec. 142(a)(1)-(15).

However, certain exempt facility bonds are exempt or partially exempt from the State volume cap.⁵⁰ For calendar year 2021, the State volume cap, which is indexed for inflation, equals \$110 per resident of the State, or \$324,995,000, if greater.⁵¹

Explanation of Provision

The provision adds a new category of exempt facility bonds for carbon capture and storage and direct air capture projects. A “qualified carbon dioxide capture facility” means the eligible components of an industrial carbon dioxide facility and also includes direct air capture facilities. The term “eligible component” means any equipment installed in an industrial carbon dioxide facility that satisfies certain requirements and is either used for the purpose of capture, treatment and purification, compression, transportation or on-site storage of carbon dioxide produced by the industrial carbon dioxide facility, or integral or functionally related and subordinate to a process that converts a solid or liquid product from coal, petroleum residue, biomass, or other materials which are recovered for their energy or feedstock value into a synthesis gas composed primarily of carbon dioxide and hydrogen for direct use or subsequent chemical or physical conversion.

The term “industrial carbon dioxide facility” means a facility that emits carbon dioxide (including from any fugitive emissions source) that is created as a result of any of the following processes: fuel combustion, gasification, bioindustrial, fermentation, or certain manufacturing industries (chemicals, fertilizers, glass, steel, petroleum residues, forest products, agriculture, including feedlots and dairy operations, and transportation grade liquid fuels).

The term “industrial carbon dioxide facility” does not include: (1) any geological gas facility or (2) any air separation unit that does not qualify as gasification equipment or is not a necessary component of any oxy-fuel combustion process. For this purpose, a geological gas facility is a facility that produces a raw product consisting of gas or mixed gas and liquid from geological formation, transports or removes impurities from such product, or separates such product into its constituent parts.

The eligible components of an industrial carbon dioxide facility are required to have a capture and storage percentage that is equal to or greater than 65 percent. In the case of an industrial carbon dioxide facility with a capture and storage percentage that is less than 65 percent, the percentage of the cost of the eligible components installed in such facility that may be financed with tax-exempt bonds may not be greater than the capture and storage percentage.

⁵⁰ Sec. 146. The following private activity bonds are not subject to the State volume cap: qualified 501(c)(3) bonds, exempt facility bonds for airports, docks and wharves, environmental enhancements for hydroelectric generating facilities, and exempt facility bonds for solid waste disposal facilities that are to be owned by a governmental unit. The State volume cap does not apply to 75 percent of exempt facility bonds issued for high-speed intercity rail facilities (100 percent if the high-speed intercity rail facility is to be owned by a governmental unit). Qualified veterans’ mortgage bonds, qualified public educational facility bonds, qualified green building and sustainable project design bonds, and qualified highway or surface freight transfer facility bonds also are not subject to the State volume cap, but the Code subjects such bonds to volume limitations specific to the category of bonds.

⁵¹ Rev. Proc. 2020-45, 2020-46 I.R.B. 1016, p. 1022, November 9, 2020.

The capture and storage percentage is an amount, expressed as a percentage, equal to the quotient of (1) the total metric tons of carbon dioxide annually captured, transported, and injected into (a) a facility for geologic storage or (b) an enhanced oil or gas recovery well followed by geologic storage, divided by (2) the total metric tons of carbon dioxide which would otherwise be released into the atmosphere each year as industrial emission of greenhouse gas if the eligible components were not installed in the industrial carbon dioxide facility. In the case of eligible components that are designed to capture carbon dioxide solely from specific sources of emissions or portions thereof within an industrial carbon dioxide facility, the capture and storage percentage is determined based only on such specific sources of emissions or portions thereof.

The State volume cap does not apply to 75 percent of exempt facility bonds issued for a qualified carbon capture facility (100 percent if the facility is to be owned by a governmental unit).

Effective Date

The provision is effective for obligations issued after December 31, 2021.

**C. Limitation on Importation of Certain Energy Equipment and Components
(sec. 603 of the bill)**

Explanation of Provision

The provision prohibits the importation of any solar cell, wind turbine, energy storage equipment, or a component for such equipment unless the United Nations certifies that the article is not mined or otherwise produced using forced labor or child labor.

Effective Date

The provision is effective on the date of enactment of the bill.

**D. Elimination of Negative Effects on Small Businesses
and Certain Individual Taxpayers
(sec. 604 of the bill)**

Explanation of Provision

Under the provision, in the case of any taxable year beginning after the date of enactment of this bill, the Secretary of the Treasury (or the Secretary's delegate) shall pay to each applicable eligible taxpayer an amount equal to the excess (if any) of (1) the tax imposed under chapter 1 of the Internal Revenue Code of 1986 (determined after the application of the amendments made by this bill which are in effect for such taxable year), over (2) the tax imposed under such chapter on such taxpayer for such taxable year (determined without regard to the amendments made by this bill).

An applicable eligible taxpayer is, with respect to any taxable year, any eligible taxpayer who establishes to the satisfaction of the Secretary of the Treasury (or the Secretary's delegate) that there is an excess amount calculated under the formula above. An eligible taxpayer is, with respect to any taxable year, an individual with an adjusted gross income of not more than \$400,000, and any employer that has an average number of fewer than 500 employees for the taxable year. Aggregation rules apply when determining the number of employees.

In the case of an employer with an average number of fewer than 500 employees that operates as a partnership, S corporation, or other pass-through entity, any partner, shareholder, or other applicable individual with an adjusted gross income of more than \$400,000 is treated as an eligible taxpayer. In such instance, the excess amount calculated under the formula above for such partner, shareholder, or other applicable individual is determined by only taking into account the income, gain, loss, deduction, or credit of such partnership, S corporation, or other pass-through entity. For this purpose, the term "applicable individual" means, with respect to any pass-through entity, any individual to whom the income, gain, loss, or deduction of such entity is attributed for tax purposes.

Any amount paid under this provision is treated as a refund of taxes due from a provision described in section 1324(b)(2) of title 31 of the United States Code.

The Secretary of the Treasury (or the Secretary's delegate) shall issue such regulations or other guidance as are necessary to carry out the provisions of this section.

Effective Date

The provision is effective on the date of enactment of the bill.