DESCRIPTION OF SUBTITLE G — GREEN ENERGY: BUDGET RECONCILIATION LEGISLATIVE RECOMMENDATIONS

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CONTENTS

Page

INTRODUCTION 1

SUBTITLE G — GREEN ENERGY 2

A. Renewable Electricity and Reducing Carbon Emissions 2
1. Extension of credit for electricity produced from certain renewable resources 7
2. Extension and modification of energy credit 9
3. Increase in energy credit for solar facilities placed in service in connection with low-income communities 14
4. Elective payment for energy property and electricity produced from certain renewable resources, etc. 16
5. Investment credit for electric transmission property 17
6. Zero emissions facility credit 19
7. Extension and modification of credit for carbon oxide sequestration 21
8. Green energy publicly traded partnerships 23
9. Zero-emission nuclear power production credit 24
B. Renewable Fuels 26
1. Extension of incentives for biodiesel, renewable diesel and alternative fuels 27
2. Extension of second generation biofuel incentives 27
3. Sustainable aviation fuel credit 27
4. Clean hydrogen 29
C. Green Energy and Efficiency Incentives for Individuals 33
1. Extension, increase, and modifications of nonbusiness energy property credit 35
2. Residential energy efficient property 36
3. Energy efficient commercial buildings deduction 36
4. Extension, increase, and modifications of new energy efficient home credit 39
5. Modification to income exclusion for conservation subsidies 40
D. Greening the Fleet and Alternative Vehicles 41
1. Refundable new qualified plug-in electric drive motor vehicle credit for individuals 42
2. Credit for previously-owned qualified plug-in electric drive motor vehicles 46
3. Qualified commercial electric vehicles 48
4. Qualified fuel cell motor vehicles 49
5. Alternative fuel refueling property credit 49
6. Reinstatement and expansion of employer-provided fringe benefits for bicycle commuting 51
7. Credit for certain new electric bicycles 54
E. Investment in the Green Workforce 57
1. Extension of the advanced energy project credit 57
2. Labor costs of installing mechanical insulation property 60
F. Qualified Environmental Justice Program Credit 61
G. Reinstatement of Superfund 63

INTRODUCTION

The House Committee on Ways and Means has scheduled a committee markup of Subtitle G — Green Energy: Budget Reconciliation Legislative Recommendations. This document,[1] prepared by the staff of the Joint Committee on Taxation, provides a description of the bill.

[1] This document may be cited as follows: Joint Committee on Taxation, *Description of Subtitle G — Green Energy: Budget Reconciliation Legislative Recommendations* (JCX-38-21), September 11, 2021. This document can also be found on the Joint Committee on Taxation website at www.jct.gov. All section references herein are to the Internal Revenue Code of 1986, as amended (herein "Code"), unless otherwise stated.

SUBTITLE G — GREEN ENERGY

A. Renewable Electricity and Reducing Carbon Emissions

Summary of Present Law Renewable 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 2021[2] (cents per kilowatt-hour)**	**Expiration[3]**
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	Expiration[4]
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 ≥ 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 ½ 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**	**Expiration[4]**
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) 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)	30%	$500 per ½ kilowatt of capacity for fuel cells	December 31, 2019[6]
	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 Credits Relating to Nuclear Power and Carbon Oxide Sequestration			
Eligible Activity	**Description**	**Credit Amount**	**Expiration**
Advanced nuclear power production credit (sec. 45J)	• 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 6,000 megawatts of credit-eligible capacity	• 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)	• 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)	• 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.

Summary of Certain Other Energy Provisions		
Eligible Activity	**Description of Provision**	**Expiration**
Five-year cost recovery for certain energy property (secs. 168(e)(3)(B)(vi) and 48(a)(3)(A))	• A five-year Modified Accelerated Cost Recovery System ("MACRS") recovery period is generally provided for equipment using solar and wind energy to generate electricity (*e.g.*, 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.e.*, 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))	January 1, 2024, for all property except for solar and wind energy property
Certain publicly traded partnerships treated as corporations (secs. 7704 and 851)	• General rule that a publicly traded partnership is taxed as a corporation is not applicable if 90 percent 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 natural resources. These activities include the exploration, development, mining or production, processing, refining, transportation (including pipelines), or the marketing of any mineral or natural resource, industrial source carbon dioxide, or the transportation or storage of certain renewable fuels.	None

1. Extension of credit for electricity produced from certain renewable resources

Description of Proposal

Facilities with a maximum output of less than one megawatt

For facilities with a maximum output of less than one megawatt of electricity, the proposal extends the section 45 credit for electricity produced from certain renewable resources for twelve years, through December 31, 2033. The proposal applies this extension to electricity produced from solar energy, which had expired at the end of 2005. The proposal also extends for twelve years the election to claim a 30-percent investment tax credit in lieu of this production tax credit for these facilities.

For these smaller facilities, the proposal modifies the credit rate phasedown for wind power such that wind facilities that are placed in service after December 31, 2021, and the construction of which begins before January 1, 2032, are entitled to the full credit. For calendar year 2032, the credit rate is for all facilities reduced to 80 percent of the otherwise applicable rate. For calendar year 2033, the credit rate for all facilities is reduced to 60 percent of the otherwise applicable rate. These phasedown rules apply to both the renewable electricity production tax credit and the investment credit in lieu of the production tax credit.

Facilities with a maximum output of at least one megawatt

For facilities with a maximum output of at least one megawatt of electricity, the proposal extends at a reduced the section 45 credit for electricity produced from certain renewable resources for twelve years, through December 31, 2033. The proposal applies this extension at a reduced rate to electricity produced from solar energy facilities with at least one megawatt of maximum output. The proposal also extends for twelve years at the reduced rate the election to claim a 30-percent investment tax credit in lieu of this production tax credit for these facilities. The reduced rate is equal to 20 percent of the otherwise applicable rate. Thus, for example, the 30-percent investment tax credit is extended at a 6 percent rate for these larger facilities.

For these larger facilities, the proposal modifies the credit rate phasedown for wind power such that wind facilities that are placed in service after December 31, 2021, and the construction of which begins before January 1, 2032, are not further reduced by a phasedown calculation, after the application of the reduced rate. For calendar year 2032, the reduced credit rate for all facilities is further reduced to 80 percent of the otherwise applicable rate. For calendar year 2033, the reduced credit rate for all facilities is further reduced to 60 percent of the otherwise applicable rate. These phasedown rules apply to both the renewable electricity production tax credit and the investment credit in lieu of the production tax credit.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

For facilities with a maximum output of at least one megawatt, an enhanced credit rate equal to 80 percent of the otherwise applicable rate is added to the reduced credit rate during the extension period if the taxpayer ensures 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.

With respect to any facility, a taxpayer is not entitled to the enhanced credit rate unless the prevailing wage requirements are met during construction, before such facility 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 enhanced production credits for energy 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.

In the case where an election for an investment tax credit in lieu of a production tax credit has been made, once a qualifying facility has been placed in service, if it does not meet prevailing wage requirements associated with any alterations or repairs, the enhanced credits are recaptured under rules similar to the rules governing the disposal of investment credit property under the rules of section 50(a)(1). As with the production tax credit, 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction, alteration, or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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

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 proposal.

Domestic content

The proposal increases the otherwise applicable section 45 credit rate (after the application of all other enhancements and reductions) by two percent (10 percent where the wage and workforce standards have also been met) 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.

With respect to facilities that do not meet domestic content requirements and have a maximum net output of at least one megawatt of electricity, the election for direct payment shall be limited to 90 percent of otherwise allowable credit value in calendar year 2024, to 85 percent of otherwise allowable credit value in calendar year 2025, and to zero percent of credit value in calendar year 2026 and later. Taxpayers making a direct payment election under this rule forfeit 100 percent of their otherwise allowable tax credits, notwithstanding the reduction in the direct payment. This rule may be waived if the Secretary, after consultation with Secretary of Commerce and the United States Trade Representative, determines that, (1) the application of the domestic content requirements would be inconsistent with the public interest, (2) such materials and products are not produced in the United States in sufficient and reasonable available quantities and of a satisfactory quality, or (3) inclusion of domestic material will increase the construction cost of the qualified facility by more than 25 percent.

These domestic content rules shall be applied in a manner consistent with the United States' obligations under international agreements.

Effective Date

The proposal is effective for facilities placed in service after December 31, 2021.

2. Extension and modification of energy credit

Description of Proposal

Facilities with a maximum output of less than one megawatt

For property used in facilities with a maximum output of less than one megawatt of electricity, the proposal extends the enhanced credit rates and expiring portions of the section 48 energy investment tax credit for ten years, through December 31, 2033. This extension does not apply to the election to claim an investment credit in lieu of the renewable power production credit, which is extended under a different proposal.

The phaseout rules under present law are modified such that qualified property used in these smaller facilities gets the full credit through calendar year 2031. Property entitled to a 30

percent credit has its credit rate reduced to 26 percent for property the construction of which begins in 2032. Such property has its credit rate further reduced to 22 percent for property the construction of which begins in 2033. Qualified property must be placed in service before January 1, 2036.

Facilities with a maximum output of at least one megawatt

For property used in facilities with a maximum output of at least one megawatt of electricity, the proposal extends at a reduced rate the enhanced credit rates and expiring portions of the section 48 energy investment tax credit for ten years, through December 31, 2033. This extension does not apply to the election to claim an investment credit in lieu of the renewable power production credit, which is extended under a different proposal. The ten percent permanent investment tax credits available for qualified solar and geothermal property are also subject to this reduced credit rate once the enhancements have expired.

The reduced rate for property used in these larger facilities is equal to 20 percent of the otherwise applicable rate. Thus, for example, the 30-percent investment tax credit is extended at a 6 percent rate for property used in these larger facilities. The 26 percent and 22 percent phasedown rates describe above with respect to property used in smaller facilities for calendar years 2032 and 2033, respectively, also apply to property used in larger facilities, but are further reduced to 20 percent of those amounts.

Energy storage technology

The proposal adds energy storage technology property to the energy investment tax credit. Energy storage technology property is allowed a 30 percent credit, subject to the credit rate phasedown described above. The credit expires for property the construction of which begins after December 31, 2033, and is subject to the same phasedown rules described above for calendar years 2032 and 2033.

Qualified property used in facilities with a maximum output of at least one megawatt of electricity are subject to the reduced rate rules described above.

Energy storage technology means equipment (other than equipment primarily used in the transportation of good or individuals and not for the production of electricity) which uses batteries, compressed air, pumped hydropower, hydrogen storage, thermal energy storage, regenerative fuel cells, flywheels, capacitors, superconducting magnets, or other technologies identified by the Secretary, after consultation with the Secretary of Energy, to store energy for conversion to electricity (except for hydrogen storage property) and has a capacity of not less than 5 kilowatt hours.

If otherwise eligible property that has a capacity of less than 5 kilowatt hours is modified to increase its capacity to at least 5 kilowatt hours, such property shall be treated as qualified property, except that its credit-eligible basis shall not include the basis of such property prior to its modification. Similarly, qualified property with a capacity of at least 5 kilowatt hours that increases its capacity shall also be eligible for a credit, with its credit-eligible basis reduced by the basis of such property prior to its modification.

Biogas property

The proposal adds qualified biogas property to the energy investment tax credit. Such property is allowed a 30 percent credit, subject to the phasedown described above. The credit expires for property the construction of which begins after December 31, 2033, and is subject to the same phasedown rules described above for calendar years 2032 and 2033.

All property used in a biogas facility is subject to the reduced rate rules described above (regardless of the size of the facility).

Qualified biogas property is property comprising a system that converts biomass into a gas which consists of not less than 52 percent methane, or is concentrated into a gas which consists of not less than 52 percent methane, and which captures such gas for productive use. Such property incudes any property that is part of such system which cleans or conditions such gas.

Qualified biogas property cannot be used in a facility eligible for the renewable electricity production tax credit.

Microgrid controllers

The proposal adds microgrid controllers to the energy investment tax credit. Such property is allowed a 30 percent credit, subject to the phasedown described above. The credit expires for property the construction of which begins after December 31, 2033, and is subject to the same phasedown rules described above for calendar years 2032 and 2033.

Qualified property used in facilities with a maximum output of at least one megawatt of electricity are subject to the reduced rate rules described above.

Microgrid controllers are property that is part of a qualified microgrid and designed and used to monitor and control the energy resources and loads on such microgrid to maintain acceptable frequency, voltage, or economic dispatch. A qualified microgrid is an electrical system that (1) includes equipment that is capable of generating not less than 4 kilowatts and not greater than 20 megawatts of electricity, (2) is capable of operating in connection with the electrical grid and as a single controllable entity with respect to such grid, and independently (and disconnected) from such grid, and (3) is not part of a bulk-power system (as defined in section 215 of the Federal Power Act.

Linear generator assemblies

The proposal adds linear generator assemblies to the definition of fuel cells eligible for the energy investment tax credit. Linear generator assemblies must have a nameplate capacity of at least 1 kilowatt of electricity using an electromechanical process that does not contain any rotating parts.

Qualified property used in facilities with a maximum output of at least one megawatt of electricity are subject to the reduced rate rules described above.

Electrochromic glass

The proposal adds electrochromic glass to the energy investment tax credit. Such property is allowed a 30 percent credit, subject to the phasedown described above. The credit expires for property the construction of which begins after December 31, 2033, and is subject to the same phasedown rules described above for calendar years 2032 and 2033. Electrochromic glass is property that uses electricity to change its light transmittance properties in order to heat of cool a structure.

Qualified property used in facilities with a maximum output of at least one megawatt of electricity are subject to the reduced rate rules described above.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

For property subject to the reduced credit rate, an enhanced credit rate equal to 80 percent of the otherwise applicable rate is added to the reduced credit rate during the extension period if the taxpayer ensures 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 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.

With respect to any facility, a taxpayer is not entitled to the enhanced credit rate unless the prevailing wage requirements are met during construction, before such facility 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 during the five year period beginning after it has been placed in service, the enhanced credits shall be recaptured under rules similar to the rules governing the disposal of investment credit property under 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction, alteration, or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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 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 proposal.

Domestic content

The proposal increases the otherwise applicable section 48 credit rate (after the application of all other enhancements and reductions) by two percentage points (10 percentage points where the wage and workforce standards have been met) 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.

With respect to facilities that do not meet domestic content requirements, the election for direct payment shall be limited to 90 percent of otherwise allowable credit value in calendar year 2024, to 85 percent of otherwise allowable credit value in calendar year 2025, and to zero percent of credit value in calendar year 2026 and later.

These domestic content rules shall be applied in a manner consistent with the United States' obligations under international agreements.

Effective Date

The proposal is generally effective for property placed in service after December 31, 2021. The addition of energy storage property, biogas property, microgrid controllers, and the extension of waste energy recovery property are effective for periods 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).

3. Increase in energy credit for solar facilities placed in service in connection with low-income communities

Description of Proposal

In general

The proposal creates a bonus energy investment credit for certain property placed in service at a qualified solar facility in connection with low-income communities. The bonus credit is equal to either 10 or 20 percent of the investment, depending on the project specifications. Only projects that receive an allocation from the Secretary, after consultation with the Secretary of Energy and the EPA Administrator, are eligible for the bonus credit. The Secretary is authorized under the proposal to allocate credits to projects representing a maximum of 1.8 gigawatts per year of nameplate capacity for each calendar year starting in calendar year 2022 and ending after calendar year 2031.

Credit rate

Qualified projects located in a low-income community (as defined in section 45D(e) are eligible for a 10 percent bonus credit. Qualified projects that are part of a qualified low-income residential building projects or qualified low-income economic benefit project are eligible for a 20 percent bonus credit. If a project is both located in a low-income community and is part of a qualified low-income residential building project or qualified low-income economic benefit project, the bonus credit amount is capped at 20 percent.

Definitions

Qualified solar facility

A qualified solar facility is a solar power generation facility with a name capacity of 5 megawatts or less that is either (1) located in a low-income community (as defined in section 45D(e) or (2) part of a qualified low-income residential building project or qualified low-income economic benefit project. A qualified solar facility includes energy storage property installed in connection with the production of solar power at the facility as well as qualified interconnection property.

Qualified interconnection property

The term "qualified interconnection property" means, with respect to a qualified facility which is not a microgrid, any tangible property which is part of an addition, modification, or upgrade to a transmission or distribution system which is required at or beyond the point at which the qualified facility interconnects to such transmission or distribution system in order to accommodate such interconnection, which is constructed, reconstructed, or erected by the taxpayer, or for which the cost with respect to the construction, reconstruction, or erection of such property is paid or incurred by such taxpayer, and the original use of which, pursuant to an interconnection agreement, commences with the utility.

Qualified low-income residential building project

A facility is treated as part of a qualified low-income residential building project if such facility is installed on a residential rental building which participates in a covered housing program (as defined in section 41411(a) of the Violence Against Women Act of 1994 (34 U.S.C. sec. 12491(a)(3)), a Housing Development Fund Corporation cooperative under Article XI of the New York State Private Housing Finance Law, a housing assistance program administered by the U.S. Department of Agriculture under Title V of the Housing Act of 1949, or such other affordable housing programs as the Secretary may provide, and the financial benefits of the electricity produced by such facility are allocated equitably among the occupants of the dwelling units of such building.

Qualified low-income economic benefit project

A facility is part of a qualified low-income economic benefit project if at least 50 percent of the financial benefits of the electricity produced by such facility are provided to households with income of less than 200 percent of the poverty line applicable to a family of the size involved or less than 80 percent of area median gross income (as determined under section 142(d)(2)(B).

Allocation criteria and other rules

In determining to which qualified solar facilities to allocate environmental justice solar capacity limitation under this paragraph, the Secretary must take into consideration which facilities will result in the greatest health and economic benefits, including the ability to withstand extreme weather events, for individuals described in section 45D(e)(2), the greatest employment and wages for such individuals, and the greatest engagement with, outreach to, or ownership by, such individuals, including through partnerships with local governments and community-based organizations.

The Secretary shall, upon making an allocation of environmental justice solar capacity limitation under this paragraph, publicly disclose the identity of the applicant, facility location, and the amount of the environmental justice solar capacity limitation allocated to such applicant and facility.

Facilities receiving an allocation must be placed in service within four years of the date credits are allocated to such facility. Credits may be recaptured if allocated to projects that cease qualify.

Under the proposal, this credit is added to the section 48 energy investment tax credit, and is subject to all the other rules applicable to that credit, including the reduced credit for property used in larger facilities, the enhanced credit for property used in facilities that satisfy certain wage and workforce requirements, and the domestic content rules. The enhanced credit rates under this proposal are applied after the application of all other enhancements and reductions.

Effective Date

The proposal is effective for periods after December 31, 2021, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990)

4. Elective payment for energy property and electricity produced from certain renewable resources, etc.

Description of Proposal

In general

The proposal permits taxpayers to elect a direct payment in lieu of the section 30C credit for alternative fuel refueling property, the section 45 renewable electricity production credit, the section 45Q carbon oxide sequestration credit, the section 48 energy investment tax credit, and the section 48C qualifying advanced energy project credit. For purposes of this election, tax-exempt entities, including State and local governments and Indian tribal governments, are treated as taxpayers eligible to elect a direct payment. In the case of a partnership or S-corporation, elections and direct payments are made at the entity level (*i.e.*, by and to the partnership or S corporation).

If the election is made, the direct payment is generally treated as a payment against the tax imposed by subtitle A for the taxable year with respect to which the credit was determined, and the amount of the credit is reduced by the direct payment amount. Special rules apply to tax-exempt and governmental entities, partnerships, and S corporations.

If the Secretary determines that a payment made to a taxpayer was an excessive payment (*i.e.*, in excess of the amount otherwise allowable as a credit for the taxable year) that did not result from reasonable cause, the taxpayer's income tax for the taxable year for which such determination is made will be increased by the amount of the excessive payment plus 20 percent of such amount.

Special rules for United States territories

The proposal establishes special rules in the case of United States territories. For non-mirror code jurisdictions, Treasury will reimburse a territorial government for any direct payments if such jurisdiction establishes similar program to the satisfaction of Secretary. For mirror-code jurisdictions, this proposal shall not be treated as part of the income tax laws of the United States for purposes of determining the income tax law of such possession unless such possession elects to have it be so treated.

Effective Date

The proposal is generally effective for property placed in service after the date of enactment.

5. Investment credit for electric transmission property

Description of Proposal

In general

The proposal creates a new 6 percent investment tax credit for investments in qualifying electric transmission property. For this purpose, qualifying electric transmission property is tangible depreciable property which is a qualifying electric transmission line or related transmission property, the construction, reconstruction, or erection of which is completed by the taxpayer, or which is acquired by the taxpayer if the original use of such property commences with taxpayer. The credit sunsets for property placed in service after December 31, 2031.

Definitions

A qualifying electric transmission line is an electric transmission line capable of transmitting at least 275 kilovolts, with a capacity of not less than 500 megawatts.

Related transmission property, with respect to any electric transmission line, is any property listed as "transmission plant" in the Uniform System of Accounts for the Federal Energy Regulatory Commission under part 101 of Subchapter C of chapter I of title 18, Code of Federal Regulations, which is necessary for the operation of such electric transmission line. No credit is allowable with respect to related transmission property unless the taxpayer is also allowed a credit for the qualifying electric transmission line to which it relates.

Upgrades of an existing electric transmission line are treated as a replacement of such line. In the case of any qualifying electric transmission line which replaces an existing electric transmission line, the 500 megawatt amount is increased by the existing amount of capacity, and the basis attributable to such existing transmission line is not eligible for the credit.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

During the extension period, an enhanced credit equal to 24 percentage points is available if the taxpayer ensures 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 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.

With respect to any facility, a taxpayer is not entitled to the enhanced credit rate unless the prevailing wage requirements are met during construction, before such facility 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 during the five year period beginning after it has been placed in service, the enhanced credits shall be recaptured under rules similar to the rules governing the disposal of investment credit property 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction, alteration, or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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 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 proposal.

Domestic content

The proposal increases the otherwise applicable credit rate (after the application of all other enhancements and reductions) by two percentage points (10 percentage points where the wage and workforce standards have been met) 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.

With respect to facilities that do not meet domestic content requirements, the election for direct payment (described below) shall be limited to 90 percent of otherwise allowable credit value in calendar year 2024, to 85 percent of otherwise allowable credit value in calendar year 2025, and to zero percent of credit value in calendar year 2026 and later.

These domestic content rules shall be applied in a manner consistent with the United States' obligations under international agreements.

Special rules

No credit for certain projects already in progress

No credit is allowed for with respect to (1) any property if the Federal Energy Regulatory Commission or any regional transmission organization has, before January 1, 2022, selected for cost allocation such property for cost recovery, or (2) any property if the construction of such property begins before January 1, 2022, or construction of any portion of the qualifying electric transmission line to which such property relates begins before such date.

Progress expenditures

The progress expenditures rules apply to this credit.

Election for direct payment

In lieu of this credit, taxpayers may elect a direct payment under the rules applicable to direct payments described in the preceding proposal.

Effective Date

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

6. Zero emissions facility credit

Description of Proposal

In general

The proposal creates a capped 30-percent investment tax credit for qualified investments in qualified property which is part of a zero emissions facility. A zero emissions facility is a facility which (1) generates electricity, (2) does not generated greenhouse gases, (3) utilizes a technology or process which, in the calendar year preceding the calendar year in which construction of the qualified facility began, achieved a market penetration level of less than three percent for the commercial generation of electricity, and (4) does not otherwise meet the definitions for eligible property or facilities under the renewable electricity production credit, the advanced nuclear power credit, the carbon oxide sequestration , or the energy investment tax credit. Eligible property is tangible, depreciable property, not including a building or its structural components, that is necessary for the generation of electricity.

Credits are allocated by the Secretary through an application process. The Secretary is authorized to allocate up to $250 million in credits for calendar year starting with calendar year 2022 and ending with calendar year 2031. Unallocated credits may be allocated in subsequent years, increasing the limitation for those years. No unallocated amount may be carried forward past calendar year 2031. To be credit eligible, qualified property must be placed in service within four years from the date of credit allocation. Credits allocable to projects that fail to meet this four-year deadline may be reallocated by the Secretary.

In selecting projects for credit allocations, the Secretary take into consideration facilities that (1) will result in the greatest reduction in greenhouse gas emissions, (2) have the greatest potential for technological innovation and commercial deployment, and (3) will result in the greatest reduction of local environmental effects that are harmful to human health.

The Secretary must publicly disclose the identity of any applicant receiving a credit allocation, the location of the facility, along with the amount of the credit allocation with respect to such applicant and facility.

Taxpayers may elect to receive a direct payment in lieu of this credit under the rules described in the earlier proposal providing for an elective payment for energy property and electricity from certain renewable resources.

Wage and workforce requirements

Prevailing wages

For property to be qualified property for purposes of this proposal, 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.

With respect to any property used at a facility, a taxpayer is not entitled to this credit unless the prevailing wage requirements are met during construction, before such facility is placed in service. However, a taxpayer may bring the facility into compliance, and have the property 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.

Apprenticeship requirements

To be qualified property, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction, alteration, or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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

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

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 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 proposal.

Effective Date

The proposal is effective for periods 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.

7. Extension and modification of credit for carbon oxide sequestration

Description of Proposal

In general

The proposal changes the base credit rate for new section 45Q carbon oxide sequestration facilities to $10 per ton for direct sequestration in secure geological storage and to $7 per ton of carbon that is used for enhanced oil recovery or utilized in a permitted manner. The proposal also extends the credit for six years, through December 31, 2031, and makes other modifications.

Minimum capture requirements

The proposal reduces the minimum amount of carbon oxide a qualified facility must capture annually to 1,000 metric tons of qualified carbon oxide in the case of a direct air capture facility, to 18,750 metric tons of qualified carbon oxide (not less than 75 percent of which would otherwise have been released into the atmosphere) in the case of an electricity generating facility, and 12,500 metric tons in the case of any other facility (not less than 50 percent of which would otherwise have been released into the atmosphere).

Increased credit rate for direct air capture facilities

The proposal changes the credit rate for direct air capture facilities to $36 per metric ton for carbon oxide that is captured and disposed of in secure geological storage without being first used as tertiary injectant. The proposal increases the credit for direct air capture facilities to $26 per metric for carbon oxide that is captured and (1) used a tertiary injectant before being disposed of in secure geological storage or (2) utilized by the taxpayer in an approved manner. These amounts are adjusted for inflation.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

An enhanced credit equal to four times the otherwise applicable base credit is added to that applicable base credit if the taxpayer ensures 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.

With respect to any facility, a taxpayer is not entitled to the enhanced credit rate unless the prevailing wage requirements are met during construction, before such facility 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 during the twelve-year period beginning after it has been placed in service is ineligible for any enhanced carbon oxide sequestration credits with respect to such facility 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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 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 proposal.

Effective Date

The extension is effective for facilities the construction of which begins after December 31, 2025. The other changes are effective for taxable years beginning after December 31, 2021.

8. Green energy publicly traded partnerships

Description of Proposal

The proposal expands the rules governing publicly traded partnerships in section 7704 to include as qualified income the following items:

- The generation of electric power or thermal energy exclusively using as its energy source wind, biomass, geothermal energy, solar energy, small irrigation power, municipal solid waste, qualified hydropower (as defined in section 45), and marine and hydrokinetic renewable energy.

- Tipping fees paid to open loop biomass or municipal solid waste facilities for accepting or processing open loop biomass or municipal solid waste.

- Income from the operation of energy investment credit property (as defined in section 48(a)(3)) without regard to any date by which the construction of such property must begin.

- The production, storage, or transportation of any fuel which (1) uses as its primary feedstock carbon oxides captured from an anthropogenic source or the atmosphere, (2) does not sue as its primary feedstock carbon oxide which is deliberately released from naturally occurring subsurface springs, and (3) is determined by the Secretary, in consultation with the Secretary of Energy and the EPA Administrator to achieve a reduction of not less than a 60 percent in lifecycle greenhouse gas emissions (as defined in section 211(o)(1)(H) of the Clean Air Act, as in effect on the date of the enactment of this clause) compared to baseline lifecycle greenhouse gas emissions (as defined in section 211(o)(1)(C) of such Act, as so in effect).

- Income from the operation of a facility that qualifies under section 45Q(d)(without regard to any sunset date).

Effective Date

The proposal is effective for taxable years beginning after December 31, 2021.

9. Zero-emission nuclear power production credit

Description of Proposal

In general

The proposal creates new 0.3 cents per kilowatt-hour credit for electricity produced at a qualified nuclear power facility and sold to an unrelated person. The credit is reduced as the sale price of such electricity increases. Under the credit reduction formula, the credit with respect to any qualified nuclear power facility for any taxable year is reduced (but not below zero) by 80 percent of the excess of the gross receipts (excluding certain State and local zero-emissions grants) from any electricity produced and sold by such facility over the product of 0.5 cents times the amount of electricity sold during the taxable year. Under this formula, the credit is totally phased out if the qualified facility is able to sell its electricity for an average of at least 4.625 cents per kilowatt-hour during the taxable year. The 0.3 cent credit amount and 0.5 cent amounts used in the credit reduction formula are both adjusted for inflation using 2022 as the base year.

A qualified nuclear power facility is a facility owned by the taxpayer that uses nuclear energy to produce electricity and which has not received an allocation under section 45J.

The credit expires for taxable years beginning after December 31, 2026.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

During the extension period, an additional enhanced credit equal to 1.2 cents per kilowatt-hour is available if the taxpayer ensures that any laborers and mechanics employed by contractors and subcontractors in the alteration or repair of such facility during the five-year credit period are paid wages at a rate not less than the prevailing wage rates for alteration or repair work 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 addition to the enhanced credit, the phaseout range is increased from 0.5 cents to 2.5 cents if the wage and workforce requirements are met. These enhanced amounts are also adjusted for inflation under the same rules as the base credit.

A taxpayer that fails to meet these standards may bring a facility into compliance, and have the facility qualify for the additional enhanced credit and increased phaseout range, 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for

projects beginning in calendar year 2023) of the total labor hours of alteration or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. Exceptions from these requirements are provided for taxpayers that demonstrate a lack of available qualified apprentices in the geographic area of the alteration or repair work and make a good faith effort to comply with the requirements of the proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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 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 proposal.

Effective Date

The proposal is effective for electricity produced and sold after December 31, 2021, in taxable years beginning after such date.

B. Renewable Fuels

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] • 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.

1. Extension of incentives for biodiesel, renewable diesel and alternative fuels

Description of Proposal

Biodiesel and renewable diesel

The proposal extends the biodiesel and renewable diesel tax incentives (income tax credit, excise tax credit and related payment provision) through December 31, 2031.

Alternative fuel and alternative fuel mixtures

The proposal extends the alternative fuel credit and related payment provision through December 31, 2031. The alternative fuel mixture credit is also extended through December 31, 2031.

Effective Date

The proposal applies to fuel sold or used after December 31, 2021.

2. Extension of second generation biofuel incentives

Description of Proposal

The proposal extends the income tax credit for second generation biofuels through December 31, 2031.

Effective Date

The proposal applies to qualified second generation biofuel production after December 31, 2021.

3. Sustainable aviation fuel credit

Description of Proposal

The proposal creates a new general business credit, the sustainable aviation fuel credit. For this purpose, "sustainable aviation fuel" is a liquid fuel that (1) meets the requirements of either ASTM International Standard D7566 or the Fischer Tropsch provisions of ASTM International Standard D1655, Annex, (2) is not derived from palm fatty acid distillates or petroleum, and (3) has been certified, as provided by the proposal, to achieve at least a 50 percent lifecycle greenhouse gas reduction percentage of at least 50 percent in comparison with petroleum-based jet fuel.

Calculation of the credit

The sustainable aviation fuel credit for the taxable year is, with respect to any sale or use of a qualified mixture which occurs during such taxable year, an amount equal to the product of the number of gallons of sustainable aviation fuel in such mixture multiplied by (1) a base credit amount of $1.25 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 below, 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 produced by the taxpayer in the United States, (2) such mixture is used by the taxpayer (or sold by the taxpayer for use) in an aircraft, (3) such sale or use is in the ordinary course of the trade or business of the taxpayer, and (4) the transfer of such mixture to the fuel tank of such aircraft occurs in the United States.

Under rules prescribed by the Secretary, the amount of the income tax credit with respect to any sustainable aviation fuel is to be reduced to account for any benefit provided with respect to such sustainable aviation fuel under the related excise tax and payment provisions (described below). The Secretary is required to prescribe coordination rules for this purpose.

Certification requirements and registration

No credit shall be allowed unless the sustainable aviation fuel has been certified to achieve at least a 50 percent lifecycle greenhouse gas reduction percentage of at least 50 percent in comparison with petroleum-based jet fuel. For purposes of certification, the certification (including the methodology and process of such certification) must conform to all requirements (including requirements related to treaceability and information transmission) of the most recent Carbon Offsetting and Reduction Scheme for International Aviation that has been adopted by the International Civil Aviation Organization ("ICAO") with the agreement of the United States. Not later than 24 months after the date of enactment of the proposal, the Secretary, after consultation with the Administrator of the Environmental Protection Agency ("EPA Administrator"), shall establish procedures pursuant to which taxpayers may obtain a certification from the Secretary that meets the aforementioned certification requirements.

No credit shall be allowed with respect to any sustainable aviation fuel unless the producer of such fuel has entered into an agreement with the Secretary to provide the Secretary such information with respect to such fuel as the Secretary may require for purposes of carrying out the proposal.

Excise tax and payment provisions

The sustainable aviation fuel credit may be used to offset fuel excise tax liability or if there is insufficient fuel excise tax liability, the taxpayer may apply for a payment of the excess credit. The registration requirements and definitions for the income tax credit also apply for this purpose.

Inclusion in gross income

The sustainable aviation fuel credit is included in gross income under section 87.

Sunset

The sustainable aviation fuel credit does not apply to any sale or use after December 31, 2031.

Renewable diesel credit for aviation eliminated

The proposal 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. Fuel that qualifies as sustainable aviation fuel cannot qualify as biodiesel or renewable diesel.

Effective Date

The proposal applies to fuel sold or used after December 31, 2022.

4. Clean hydrogen

Description of Proposal

Credit for production of clean hydrogen

The proposal 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.

The "applicable amount" is equal to the applicable percentage of $0.60 (or $3.00 in the case of the enhanced credit described below), rounded to the nearest 0.1 cent.[2] 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 40 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 proposal.

"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,

[2] The $0.60 amount (or the $3.00 in the case of the enhanced credit) is indexed for inflation beginning after December 31, 2021.

achieves a percentage reduction in lifecycle greenhouse gas emissions of at least 40 percent. The term does not include any hydrogen which 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). The hydrogen must be produced in the United States or a possession of the United States in the ordinary course of a trade or business of the taxpayer for sale or use.

A "qualified clean hydrogen production facility" is a facility owned by the taxpayer that produces qualified clean hydrogen. To qualify for the enhanced credit a qualified clean hydrogen production facility must also satisfy certain wage and workforce requirements described below.

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.

Special rules

Rules similar to the rules of section 45(e)(3) apply for purposes of the proposal. No credit is allowed with respect to qualified clan hydrogen produced at a facility which includes property for which a credit is allowed under section 45Q or for which an election under section 6417 (relating to direct pay) is made.

Guidance

Not later than one year after the date of enactment, the Secretary, in consultation with the Secretary of Energy and EPA Administrator shall publish regulations or other guidance to carry out the purposes of the proposal, including prescribing methods for determining the credit based on lifecycle greenhouse gas emissions and requiring verification by one or more unrelated third parties of the production and sale or use of qualified clean hydrogen with respect to which credit is otherwise allowed under the proposal.

Termination

No credit is available for facilities the construction of which begins after December 31, 2028.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

An enhanced credit equal to the applicable percentage of $3.00 if the taxpayer ensures 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. Facilities for which construction began prior to the date of enactment are exempt from the requirement as it

relates to construction. Such facilities must remain compliant with respect to alterations or repairs during the 10-year credit period.

With respect to any facility, a taxpayer is not entitled to the enhanced credit rate unless the prevailing wage requirements are met during construction, before such facility 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 enhanced production credits for qualified clean hydrogen 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.

Apprenticeship requirements

To be eligible for the enhanced credit, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction, alteration, or repair work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. 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. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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 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 proposal.

Election for direct payment

In lieu of the clean hydrogen production credit, taxpayers may elect a direct payment under the rules applicable to direct payments as described in the proposal entitled "Elective

payment for energy property and electricity produced from certain renewable resources," which is discussed earlier in this document.

Credit for electricity produced from renewable resources allowed if electricity is used to produce clean hydrogen

The proposal permits a taxpayer to receive both the section 45 credit for electricity produced from renewable resources and the credit for production of clean hydrogen. The electricity will be treated as sold to an unrelated person if such electricity is used at a qualified clean hydrogen production facility to produce clean hydrogen.

Election to treat clean hydrogen production facilities as energy property

In lieu of the clean hydrogen production credit, the proposal permits a taxpayer to elect to treat clean hydrogen facilities (or any portion of such facility) as energy property. The energy percentage with respect to such property ranges from six to 30 percent depending on the type of qualified clean hydrogen that the facility is designed and reasonably expected to produce. The election is irrevocable. The specified clean hydrogen facility must be placed in service after December 31, 2021 and with respect to which no credit has been allowed under the new section 45X (the clean hydrogen production credit) or section 45Q (the credit for carbon oxide sequestration) or for which no election under section 6417 (relating to direct pay) has been made. The Secretary, after consultation with the Secretary of Energy and the Administrator of the Environmental Protection Agency, is required to issue regulations or other guidance necessary to carry out the proposal, including guidance on verification that the facility produces hydrogen consistent with the hydrogen such facility was designed and expected to produce and recaptures any excess credit amounts based on the actual verified production.

Termination of excise tax credit for hydrogen

The proposal terminates the alternative fuel excise tax credit as it relates to hydrogen.

Effective Date

The proposal as it relates to the clean hydrogen production credit applies to hydrogen produced after December 31, 2021.

The proposal as it relates to renewable electricity used to produce clean hydrogen applies to electricity produced after December 31, 2021.

The proposal as it relates to the energy property election for clean hydrogen production facilities applies periods after December 31, 2021, under rules similar to the rules of section 48(m) of the Internal Revenue Code of 1986 (as in effect on the day before the date of the enactment of the Revenue Reconciliation Act of 1990).

The termination of the alternative fuel excise tax credit incentives for hydrogen applies to fuel sold or used after December 31, 2021.

C. Green Energy and Efficiency Incentives for Individuals

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 Certain Energy Efficiency Tax Incentives				
		Credit Rate or Amount	**Maximum Credit**	**Expiration**[2]
Personal credits:				
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

Summary of Certain Energy Efficiency Tax Incentives				
		Credit Rate or Amount	**Maximum Credit**	**Expiration**[2]
Credit for residential energy efficient property (sec. 25D)	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)	30%	$500 per ½ kilowatt of capacity for fuel cells	December 31, 2019
		26%		December 31, 2022
		22%		December 31, 2023
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

Exclusions and Deductions:

Eligible Activity	Description	Expiration
Energy conservation subsidies provided by public utilities (sec. 136)	Exclusion from gross income for energy conservation subsidies provided by public utilities for energy conservation measures designed to reduce electricity or natural gas consumption or to improve energy demand management with respect to a residential dwelling unit.	None
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 (acquired in the case of section 45L) after the expiration date.

1. Extension, increase, and modifications of nonbusiness energy property credit

Description of Proposal

The proposal extends the section 25C credit for nonbusiness energy property for ten years, through December 31, 2031. The proposal also increases from 10 percent to 30 percent the credit rate for qualified energy efficient improvements. The proposal replaces the lifetime credit limitation with an annual limitation of $1,200. The limit for windows is changed to $200 for any taxable year, $600 in the case of the most efficient Energy Star certified windows. The limit for an exterior door is changed to $250 for any taxable year, $500 with respect to all exterior doors.

The proposal modifies the standards for energy efficient building envelope components such that a qualifying component must meet (1) in the case of an exterior window, a skylight, or an exterior door, the applicable Energy Star program requirements, and (2) in the case of any other component, the prescriptive criteria for such component established by the International Energy Conservation Code (IECC) standard in effect as of the beginning of the calendar year which is 2 years prior to the calendar year in which such component is placed in service.

The proposal eliminates roofs as building envelope components for purposes of the credit but clarifies that air barrier insulation can qualify.

The proposal expands the definition of residential energy efficient property expenditures to include expenditures at any dwelling unit located in the United States that is used as a residence by the taxpayer, regardless of whether the taxpayer owns such dwelling unit or whether such dwelling unit is the taxpayer's principal residence.

The proposal modifies the definition of "qualified energy property" to mean any of the following which meet or exceed the highest efficiency tier (not including any advanced tier) established by the Consortium for Energy Efficiency which is in effect as of the beginning of the calendar year in which the property is placed in service:

- An electric heat pump water heater;
- An electric heat pump;
- A central air conditioner;
- A natural gas, propane, or oil water heater; or
- A natural gas, propane, or oil furnace or hot water boiler.

The proposal also adds a 30 percent credit, up to $150, for the amount paid or incurred by the taxpayer during the taxable for home energy audits. For this purpose, as home energy audit means an inspection and written report with respect to a dwelling unit located in the United States owned or used by the taxpayer as the taxpayer's principal resident that (1) identifies the most significant and cost-effective energy efficiency improvements with respect to such dwelling unit, including an estimate of the energy and cost savings with respect to each such improvement, and (2) is conducted and prepared by a home energy auditor that meets the

certification or other requirements specified by the Secretary (after consultation with the Secretary of Energy).

Finally, the proposal adds several compliance related rules, consisting of (1) rules giving Treasury authority to treat certain errors related to section 25C as mathematical or clerical errors, and (2) a product identification number requirement, requiring that various credit-eligible products (not including insulation) be assigned a unique identification number by that product's manufacturer.

Effective Date

The proposal is generally effective for property placed in service after December 31, 2021. The portion of the proposal related to home energy audits is effect for amounts paid or incurred after December 31, 2021. The product identification number requirement is effective for property placed in service after December 31, 2023.

2. Residential energy efficient property

Description of Proposal

The proposal extends the section 25D residential energy efficient property credit for ten years, through December 31, 2033. The credit modifies the phaseout rules such that eligible property is entitled to a 30-percent credit for property placed in service after December 31, 2021 and before January 1, 2032, to a 26-percent credit for property placed in service in calendar year 2032, and to a 22-percent credit for property placed in service in calendar year 2033.

The proposal also adds qualified battery storage technology expenditures to the list of expenditures eligible for the residential energy efficiency property credit. For this purpose, a qualified battery storage technology expenditure is an expenditure for battery storage technology (1) installed in connection with a dwelling unit located in the United States used as a residence by the taxpayer (2) that has a capacity of not less than 3 kilowatt hours.

Effective Date

The proposal is effective for expenditures made after December 31, 2021.

3. Energy efficient commercial buildings deduction

Description of Proposal

In general

The proposal temporarily modifies the section 179D energy efficient commercial buildings deduction. The modifications are in effect for taxable years beginning after December 31, 2021, and ending before January 1, 2032.

The proposal also permanently updates the application of the standard set forth in section 179D(c). Under the modified rule, any change to that standard under the prescribed rules must

be published two years before date upon which the property to which that new standard would apply is placed in service.

Modification of efficiency standard

The proposal reduces the amount by which a building must increase its efficiency relative to a reference building in order to be eligible for the section 179D deduction from 50 percent to 25 percent.

Maximum amount of deduction

Under the proposal, the maximum energy efficient commercial buildings deduction is changed to an amount equal $0.50 per square foot increased (but not above $1.00) by $0.02 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. This maximum amount represents the total 179D deduction that may be claimed for a building with respect to the current taxable year plus the three preceding taxable years. These amounts are adjusted for inflation and replace both the $1.80 per square foot maximum deduction and the partial allowance rule.

Alternative deduction for energy efficient retrofit building property

Under the proposal, at the election of the taxpayer, there is allowed as a deduction for the taxable year which includes the date of a building's qualifying final certification with respect to a qualified retrofit plan, an amount equal to the lessor of (1) the maximum amount described above or (2) the aggregate adjusted basis of energy efficient retrofit building property placed in service by the taxpayer pursuant to such qualified retrofit plan.

A qualified retrofit plan is a written plan prepared by a qualified professional which specifies modifications to a building which, in the aggregate, are expected to reduce such building's energy usage intensity by 25 percent or more in comparison to the baseline energy usage intensity of such building. Such plan shall provide for a qualified professional to certify the energy intensity of the building both before and after the retrofit and certify the status of any energy efficient building property installed on the building pursuant to the retrofit plan.

Energy efficient building property is depreciable (or amortizable) property installed on or in any qualified building, which is installed as part of the interior lighting systems, the heating, cooling, ventilation, and hot water systems, or the building envelope, and which is certified under the rules described above.

A qualified building must be located in the United States and have been originally placed in service not less than 5 years before the establishment of the qualified retrofit plan with respect to such building.

The qualifying final certification is, with respect to any qualified retrofit plan, the certification by a qualified professional after the retrofit has been completed certifying that the energy usage intensity of the retrofitted building is not more than 75 percent of the baseline energy usage intensity of such building.

The baseline energy usage intensity means the energy usage intensity certified by a qualified professional prior to the retrofit. The energy intensity comparison may be adjusted to take into account weather under such rules as the Secretary, after consultation with the EPA Administrator, may provide.

A qualified professional is an individual who is a licensed architect or licensed engineer and who meets such other requirements as the Secretary may provide.

Allocation of deduction by certain tax-exempt entities

The proposal allows certain tax-exempt entities to allocate the deduction to the person primarily responsible for designing the property. These entities comprise the Federal government, any State or political subdivision, any possession of the United States, or any agency or instrumentality of any of the foregoing, any Indian tribal government, and any tax-exempt organization.

Enhanced deduction where certain wage and workforce requirements are met

Prevailing wages

During the 10-year period of the proposal, an enhanced deduction equal to four times the deduction described above is available in addition to that above-deduction if the taxpayer ensures that any laborers and mechanics employed by contractors and subcontractors in the construction of such facility prior to it being 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 enhanced deduction is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the enhanced 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.

Apprenticeship requirements

To be eligible for the enhanced deduction, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction work on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. 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 proposal. Labor hours are the total number of hours devoted to construction work by employees of the contractor or subcontractor and excludes certain hours worked by managers or owners. A

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

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 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 proposal.

Effective Date

The proposal is generally effective for taxable years beginning after December 31, 2021. The alternative deduction for energy efficient retrofit property is effective for property placed in service after December 31, 2021, in taxable years ending after such date, if such property is placed in service pursuant to a qualified retrofit plan established after such date.

4. Extension, increase, and modifications of new energy efficient home credit

Description of Proposal

The proposal extends for ten years, through December 31, 2031, the section 45L credit for new energy efficient homes. The proposal replaces the existing credit amounts with a $2,500 credit for new homes that meet certain energy efficiency standards and a $5,000 credit for new homes that are certified as zero-energy ready homes. The credit for multifamily dwelling units is reduced to 20 percent of the otherwise applicable amount.

For single-family homes, to be eligible for the $2,500 credit, a dwelling unit must meet the following standards, as applicable: (1) in the case of a dwelling unit acquired before January 1, 2024, the Energy Star Single-Family New Homes National Program Requirements 3.1, and (2) in the case of dwelling unit acquired after December 31, 2023, the Energy Star Single-Family New Homes National Program Requirements 3.2. In addition, such dwelling unit must meet the most recent Energy Star Single-Family Homes Program Requirements applicable to the location of such dwelling unit (as in effect on the latter of January 1, 2022, or the January 1 that is two calendar years prior to the date such dwelling unit is acquired).

A multifamily dwelling unit is eligible for $500 credit if such unit (1) meets the most recent Energy Star Multifamily New Construction National Program Requirements as in effect on the latter of January 1, 2022, or the January 1 that is two calendar years prior to the date such dwelling unit is acquired,and (2) meets the most recent Energy Star Multifamily New Construction Regional Program Requirements applicable to the location of such dwelling unit as in effect on the latter of January 1, 2022, or the January 1 that is two calendar years prior to the date such dwelling unit is acquired.

For the $5,000 credit ($1,000 in the case of multifamily housing), a dwelling unit must be certified as a zero-energy ready home under the zero-energy ready home program of the Department of Energy (or any successor program determined by the Secretary) as in effect as on the date of enactment.

Enhanced credit amount for multifamily housing where certain wage requirements are met

Prevailing wages

During the extension period, an additional enhanced credit equal to 80 of the otherwise applicable credit amount is available with respect to multifamily housing units if the taxpayer ensures that any laborers and mechanics employed by contractors and subcontractors in the construction*of such facility prior to it being placed in service 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 enhanced credit is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the enhanced 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.

Effective Date

The proposal is effective for dwelling units acquired after December 31, 2021.

5. Modification to income exclusion for conservation subsidies

Description of Proposal

The proposal expands the section 136 income exclusion for energy conservation subsidies to exclude from income the following items:

- Amounts provided (directly or indirectly) by a public utility to a customer, or by a State of local government to a resident of such State or locality, for the purchase or installation of any water conservation or efficiency measure;
- Amounts provided (directly or indirectly) by a storm water management provider to a customer, or by a State or local government to a resident of such State or locality, for the purchase or installation of any storm water management measure; or
- Amounts provided (directly or indirectly) by a State or local government to a resident of such State or locality for the purchase or installation of any wastewater management measure, but only if such measure is with respect to the taxpayer's principal residence.

Effective Date

The proposal is effective for amounts received after December 31, 2018.

D. Greening the Fleet and Alternative Vehicles

Summary of Present Law Alternative Fuel Vehicle and Related Infrastructure Incentives

The Code contains a number of tax incentives for alternative fuel vehicles and related infrastructure. The following table provides a summary of these incentives.

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	• 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

1. Refundable new qualified plug-in electric drive motor vehicle credit for individuals

Description of Proposal

In general

The proposal extends and modifies the section 30D credit for new qualified plug-in electric drive motor vehicles (the "EV credit").

Manufacturer limitation

The proposal 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 proposal makes the EV credit a refundable personal income tax credit for vehicles acquired on or after that date.[3] The proposal adds a requirement that taxpayers must list the vehicle identification number ("VIN") on their returns for the taxable year to claim the EV credit. The proposal also gives the IRS mathematical error authority for taxpayers who omit the VIN.

EV credit amount

The base amount of the credit is increased to $4,000 (from $2,500). An additional credit of $3,500 is available for vehicles with a battery capacity of not less than 40 kilowatt hours acquired before January 1, 2027. This additional credit of $3,500 is available for vehicles with a battery capacity of not less than 50 kilowatt hours acquired after December 31, 2026.

The proposal also provides another additional credit amount of $4,500 for new qualified plug-in electric drive motor vehicles for which the final assembly is at a facility located in the United States operating under a collective bargaining agreement negotiated by an employee organization.[4] An additional credit amount of $500 for new qualified plug-in electric drive motor vehicles with battery cells manufactured in the U.S. and at least 50-percent of the component parts for final assembly are domestic content (including such battery cells).

Therefore, under the proposal a new qualified plug-in electric drive motor vehicle is eligible for a maximum credit of $12,500, for a vehicle that meets the battery capacity, domestic assembly and collective bargaining, and domestic content standards listed above. However, the credit may not exceed 50-percent of the purchase price of the vehicle.

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[3] Proposed sec. 36C.

[4] As defined in section 412(c)(4).

Vehicle price and AGI limitations

The proposal requires that a new qualified plug-in electric drive motor vehicle purchased by the taxpayer have a manufacturer's suggested retail price ("MSRP") not in excess of certain limitations. That is, the credit amount is reduced to $0 if the MSRP for the vehicle exceeds the applicable limitation. This limitation is $74,000 in the case of a pickup truck, $69,000 in the case of a sport utility vehicle, $64,000 in the case of a van, and $55,000 in the case of a sedan. The Secretary is directed release regulations to characterize vehicles into the appropriate category by applying rules similar to those employed by the EPA and the Department of Energy to determine vehicle class and size.

Additionally, the credit is reduced by $200 for each $1,000 (or fraction thereof) by which the taxpayer's modified AGI exceeds $800,000 in the case of a joint return or surviving spouse, $600,000 in the case of a head of household, or $400,000 in the case of any other taxpayer.[5] For this limitation and phaseout, the taxpayer may elect to apply the modified AGI of the preceding taxable year rather the modified AGI of the current taxable year.

Modification to new qualified plug-in electric drive motor vehicle definition

The proposal modifies the definition of new qualified plug-in electric drive motor vehicle to mean a motor vehicle[6] (a) the original use of which commences with the taxpayer; (b) which is acquired for use by the taxpayer and not for resale; (c) which is made by a qualified manufacturer; (d) which is treated as a motor vehicle for purposes of title II of the Clean Air Act; (e) which has a gross vehicle weight rating of less than 14,000 pounds; (f) which is propelled to a significant extent by an electric motor drawing electricity from a battery of a capacity of not less than seven kilowatt hours in the case of vehicles placed in service in 2022 or 2023 or ten kilowatt hours in the case of vehicles placed in service after 2023 and which is capable of being recharged from an external source of electricity; and (g) which is not of a character subject to an allowance for depreciation.

Qualified manufacturer

The proposal requires that new qualified plug-in electric drive motor vehicles and two- and three-wheeled plug-in electric vehicles be made by qualified manufacturers. A qualified manufacturer is a manufacturer[7] which agrees to ensure that VINs are assigned to certain vehicles and to make periodic written reports to the Secretary providing VINs and other information the related to such vehicles as the Secretary may require. These certain vehicles are

[5] For this purpose modified AGI is AGI increased by any amount excluded from gross income under section 911, 931, or 933.

[6] For this purpose, a motor vehicle is a vehicle manufactured primarily for use on public streets, roads, and highways (not including a vehicle operated exclusively on a rail or rails) and which has at least 4 wheels. Sec. 30D(d)(2).

[7] For this purpose, manufacturer has the meaning given such term in regulations prescribed by the Administrator of the Environmental Protection Agency for purposes of the administration of title II of the Clean Air Act (42 U.S.C. 7521 et seq.)

vehicles which (a) are treated as motor vehicles for purposes of title II of the Clean Air Act, (b) have a gross vehicle weight rating of less than 14,000 pounds, (c) are propelled to a significant extent by an electric motor drawing electricity from a battery of a capacity of not less than seven kilowatt hours in 2022 or 2023 or ten kilowatt hours after 2023 (2.5 kilowatt hours in the case of a two- or three-wheeled vehicle) and that is capable of being recharged from an external source of electricity, and (d) are in compliance with applicable air quality and motor vehicle safety standards.[8]

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

The proposal extends the credit in section 30D for two- and three-wheeled plug-in electric vehicles[9] for vehicles acquired after December 31, 2021. The proposal makes the credit a refundable personal income tax credit for vehicles acquired on or after that date. For two- and three-wheeled plug-in electric vehicles, the proposal requires that taxpayers must list the VIN on their returns for the taxable year to claim the credit and grants the IRS mathematical error authority for taxpayers who omit the VIN.

Transfer of credit

The Secretary is directed to issue regulations or guidance to allow a taxpayer who has purchased or leased a vehicle to elect to transfer the credit to an eligible entity. The eligible entity is then treated as the taxpayer with respect to the credit. The Secretary is directed to establish a program to provide advance payments of these credit amounts to eligibly entities. An election to transfer the credit must be made on or before the date of vehicle purchase.

An eligible entity is a dealer[10] which meets the following requirements: First, the dealer must be registered with the Secretary. Second, prior to the election of transfer, the dealer must disclose information to the buyer on the MSRP price of the vehicle, value of the credit or other incentives available, associated fees related to the purchase, and the amount provided by the dealer as a condition of an election to transfer. Third, the dealer must pay the taxpayer for the amount of the credit allowable. Finally, the dealer must ensure that the availability or use of any other available manufacturer or dealer incentive does not limit the ability of the taxpayer to make an election and that the election will not limit the value or use of any such incentive. The Secretary may revoke the registration of dealers that fail to comply with these requirements.

The payment made by dealers to buyers in connection with a credit transfer election is not includable in the gross income of the taxpayer and is not deductible to the dealer.

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[8] These are equivalent to the standards under section 30D(f)(7).

[9] The credit for three-wheeled plug-in electric vehicles expired for vehicles acquired after December 31, 2013.

[10] A dealer is a person licensed by a State, territory of the U.S., or Indian tribe to engage in the sale of vehicles.

Special rules[11]

The basis of any property for which an EV credit is taken must be reduced by the amount of such credit. The amount of any deduction or other credit allowable for an EV must be reduced by the amount of EV credit taken. EVs used outside of the United States do not qualify for the credit.[12] The Secretary is directed to issue regulations to require recapture of the credit for property which ceases to be eligible. The taxpayer may elect not to have the EV credit apply to an EV. To qualify for the credit, a vehicle must be in compliance with applicable air quality and motor vehicle safety standards.[13]

Payments to territories

Mirror Code territories

The proposal directs the Secretary to makes payments to each of Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands in an amount equal to the loss in revenue by reason of the application of the EV credit to the territory's mirror Code for the taxable year. The amount is determined by the Secretary based on information provided by the government of the territory.

Nonmirror Code territories

The proposal directs the Secretary to make payments to each of American Samoa and Puerto Rico in an amount equal to the loss in revenue for operating a similar EV credit, if the territory establishes a similar EV credit approved by the Secretary with a plan to promptly distribute such payments to its residents.

EV credit termination

The credit does not apply to vehicles acquired after December 31, 2031.

Effective Date

The proposal to allow for transfer of the credit is effective for vehicles purchased or leased after December 31, 2022.

The other provisions of the proposal are effective for vehicles acquired after December 31, 2021.

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[11] Proposed sec. 36C(f).

[12] No credit is allowable with respect to property referred to in section 50(b)(1).

[13] These are equivalent to the standards under section 30D(f)(7).

2. Credit for previously-owned qualified plug-in electric drive motor vehicles

Description of Proposal

In general

The proposal creates a new credit for each previously-owned qualified plug-in electric drive motor vehicle placed in service by a qualified buyer (the "previously-owned EV credit").

Credit amount and limitations

The credit amount is $1,250 plus $208.50 times the number of kilowatt hours by which the capacity of the battery of the vehicle exceeds four kilowatt hours (determined at time of sale). The credit amount cannot exceed the lesser of $2,500 or 30 percent of the sale price of the vehicle.

Additionally, the credit is reduced by $200 for each $1,000 (or fraction thereof) by which the taxpayer's AGI exceeds $150,000 in the case of a joint return or surviving spouse, $112,500 in the case of a head of household, or $75,000 in the case of any other taxpayer.

Previously-owned qualified plug-in electric drive motor vehicles

A previously-owned qualified plug-in electric drive motor vehicle is a vehicle (1) with a model year at least two years earlier than the calendar year of acquisition, (2) for which original use commences with a person other than the buyer, (3) acquired in a qualified sale, (4) registered by the taxpayer for operation in a State or territory of the U.S., and (5) that meets certain requirements of new qualified plug-in electric drive motor vehicles. These requirements are that the vehicle (1) is made by a qualified manufacturer, (2) is treated as a motor vehicle for purposes of title II of the Clean Air Act, (3) weighs less than 14,000 pounds, (4) is propelled to a significant extent by an electric motor drawing electricity from a battery of a capacity of not less than four kilowatt hours and which is capable of being recharged from an external source of electricity, and (5) is not of a character subject to an allowance for depreciation.

Qualified sale

A qualified sale is a sale of motor vehicle by a seller holding such vehicle in inventory[14] for sale or lease, with a sales price not in excess of $25,000, which is the first transfer since the date of enactment to a person other than the person who originally placed the vehicle in service.

Qualified buyer

A qualified buyer is an individual who (1) purchases a vehicle for use and not for resale, (2) is not a dependent of another taxpayer, (3) has not been allowed a previously-owned EV credit during the three years preceding the date of the vehicle's purchase, and (4) possesses a certificate issued by the seller. This certificate must certify (1) that the vehicle is a previously-

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[14] Within the meaning of section 471.

owned qualified plug-in electric drive motor vehicle, (2) the VIN, (3) the battery capacity at time of sale, and (4) other information that the Secretary may require.

Special rules

For a vehicle to qualify, a taxpayer must list the VIN of each vehicle on the return for the taxable year. The proposal also gives the IRS mathematical error authority for taxpayers who omit the VIN. The Secretary may also require the certificate for qualified buyers to be submitted by the issuer.

Rules similar the rules in proposed section 36C(f) apply to the previously-owned EV credit.[15]

Payments to territories

Mirror Code territories

The proposal directs the Secretary to makes payments to each of Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands in an amount equal to the loss in revenue by reason of the application of the used EV credit to the territory's mirror Code for the taxable year. The amount is determined by the Secretary based on information provided by the government of the territory.

Nonmirror Code territories

The proposal directs the Secretary to make payments to each of American Samoa and Puerto Rico in an amount equal to the loss in revenue for operating a similar used EV credit, if the territory establishes a similar used EV credit approved by the Secretary with a plan to promptly distribute such payments to its residents.

Previously-owned EV credit termination

The credit does not apply to vehicles acquired after December 31, 2031.

Effective Date

The proposal is effective for vehicles acquired after December 31, 2021.

[15] A description of these rules is provided above in the section describing the modifications to the electric vehicle credit. These rules are similar to rules in section 30D(f).

3. Qualified commercial electric vehicles

Description of Proposal

In general

The proposal creates a new credit for each qualified commercial electric vehicle ("qualified commercial EV") placed in service by the taxpayer. The credit amount is 30 percent of the basis of a qualified vehicle.

Qualified commercial vehicles

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 qualified manufacturer,[16] and (4) be treated as a motor vehicle for purposes of title II of the Clean Air Act or be mobile machinery.[17] In addition, the vehicle must have a battery that has a capacity of at least 30 kilowatt-hours that is capable of being recharged from an external source and is not powered or charged by an internal combustion engine.

Additionally, a qualified commercial EV includes a new qualified fuel cell motor vehicle. To be a new qualified fuel cell motor vehicle for purposes of the qualified commercial EV credit, the vehicle must meet the requirements of a qualified commercial EV above except in place of the battery capacity and power source requirements the vehicle must (1) be propelled by power derived from one or more cells which convert chemical energy directly into electricity by combining oxygen with hydrogen fuel which is stored on board the vehicle and (2) in the case of a passenger automobile or light truck meet or exceed certain emissions levels.[18]

Special rules

For a vehicle to qualify, a taxpayer must list the VIN of each vehicle on the return for the taxable year. The proposal also gives the IRS mathematical error authority for taxpayers who omit the VIN.

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[16] Qualified manufacturer has the meaning as in proposed section 36C(e)(3) without regard to the 14,000 pound weight limit. A description of qualified manufacturer is provided above in the section describing the modifications to the electric vehicle credit.

[17] Sec. 4053(8).

[18] See sec. 30B(b)(3)(B).

Rules similar the rules in proposed section 36C(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 alternative fuel vehicle credit termination

The credit does not apply to vehicles acquired after December 31, 2031.

Effective Date

The proposal applies to vehicles acquired after December 31, 2021.

4. Qualified fuel cell motor vehicles

Description of Proposal

The proposal extends the sunset date for the credit for new qualified fuel cell motor vehicles in section 30B for ten years (through December 31, 2031).

The definition of new qualified fuel cell motor vehicle is modified such that the vehicle may not be of a character subject to an allowance for depreciation.

Effective Date

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

5. Alternative fuel refueling property credit

Description of Proposal

In general

The proposal extends the sunset date for the alternative fuel refueling property credit[21] for ten years (through December 31, 2031). For depreciable property, the credit is extended at a reduced rate equal to 20 percent of the rate currently available under present law. Thus, for depreciable property placed in service in calendar years 2022 through 2031, the credit rate is six percent. The credit rate remains unchanged at 30 percent for nondepreciable property. The proposal also modifies the credit limitation for certain fuel refueling property.

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[19] A description of these rules is provided above in the section describing the modifications to the electric vehicle credit. These rules are similar to rules in section 30D(f).

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

[21] Sec. 30B.

Increased limitation and supplemental credit

The proposal modifies the limitation in section 30C(b) so that the per location limitation is increased to $100,000 (from $30,000) for depreciable property and $3,333.33 (from $1,000) in any other case.

In addition, the proposal adds a supplemental four-percent credit (in addition to the base six-percent credit) on costs above the $100,000 limit for qualified property that is depreciable property if such property refuels only electricity or fuel consisting of at least 85 percent hydrogen by volume and is intended for general public use (and accept payments via a credit card reader, including contactless technology, or has no associated fee or payment arrangement) or is intended for use exclusively by fleets of commercial or government vehicles.

Modification of qualified alternative fuel vehicle refueling property definition

The proposal modifies the definition of qualified alternative fuel vehicle refueling property to include property that can charge the battery of a motor vehicle propelled by electricity and allows discharging electricity from such battery to an electric load external to the motor vehicle.

In addition, the definition is modified to include property designed to charge two- and three-wheeled electric bikes and scooters manufactured for primary use on public streets, roads, or highways. This property must be depreciable, must refuel only electricity or fuel consisting of at least 85 percent hydrogen by volume, and be intended for general public use (and accept payments via a credit card reader, including contactless technology, or has no associated fee or payment arrangement) or be intended for use exclusively by fleets of commercial or government vehicles.

Enhanced credit rate where certain wage and workforce requirements are met

Prevailing wages

During the extension period for depreciable property, an enhanced base credit rate equal to 30 percent and an enhanced supplemental credit rate of 20 percent are available if the taxpayer ensures that any laborers and mechanics employed by contractors and subcontractors in the construction of such property prior to it being placed in service 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 enhanced incentive is allowed unless the prevailing wage requirements are satisfied. However, a taxpayer may come into compliance and qualify for the enhanced 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.

Apprenticeship requirements

To be eligible for the enhanced credit rates for depreciable property, a taxpayer must also ensure that certain qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for projects beginning in calendar year 2023) of the total labor hours of construction on any applicable project are performed by qualified apprentices. In addition, the ratio of apprentice-to-journeyworker must meet the standard set by the Department of Labor or applicable State apprenticeship agency. Exceptions from these requirements are provided for taxpayers that demonstrate a lack of available qualified apprentices in the geographic area of the construction work and make a good faith effort to comply with the requirements of the proposal. Labor hours are the total number of hours devoted to construction work by employees of the contractor or subcontractor and excludes certain hours worked by managers or owners. A qualified apprentice is an employee of the contractor or subcontractor who is participating in a registered apprenticeship program.

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

Alternative fuel refueling property credit termination

No credit is allowed for any property placed in service after December 31, 2031.

Effective Date

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

6. Reinstatement and expansion of employer-provided fringe benefits for bicycle commuting

Present law

In general

The exclusion for qualified bicycle commuting reimbursement is suspended by Public Law No. 115-97 for taxable years beginning after December 31, 2017, and before January 1, 2026.

Qualified bicycle commuting reimbursements

Qualified transportation fringe benefits include mass transit passes, qualified parking, transportation in a commuter highway vehicle, and any qualified bicycle commuting

reimbursement.[22] Qualified bicycle commuting reimbursements of up to $20 per qualifying bicycle commuting month in a calendar year are excludable from an employee's gross income.[23] A qualifying bicycle commuting month is any month during which the employee regularly uses the bicycle for a substantial portion of the travel between the employee's residence and place of employment and during which the employee does not receive any qualified transportation fringe benefit for transportation in a commuter highway vehicle (in connection with travel between the employee's residence and place of employment), a transit pass, or qualified parking.[24]

A qualified bicycle commuting reimbursement for a calendar year is an employer reimbursement during the 15-month period beginning with the first day of the calendar year for reasonable expenses incurred by the employee during such calendar year for the purchase of a bicycle and bicycle improvements, repair, and storage, if the bicycle is regularly used for travel between the employee's residence and place of employment.[25]

Qualified bicycle commuting reimbursements that are excludable from gross income for income tax purposes are also excluded from wages for employment tax purposes.

Deduction allowed

Qualified bicycle commuting reimbursements are intended to be allowed as a deductible expense to the employer during years in which the exclusion for qualified bicycle commuting reimbursement is suspended.[26]

Description of Proposal

In general

The proposal restores and modifies the exclusion for qualified bicycle commuting reimbursements.

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[22] Sec. 132(f)(1).

[23] Secs. 132(a)(5), 132(f)(1)(D), and 132((f)(5)(F)(ii).

[24] Sec. 132(f)(5)(F)(iii).

[25] Sec. 132(f)(5)(F)(i).

[26] A technical correction may be necessary to reflect that the suspension relates to the exclusion (under subsection (a)(5) of section 132) rather than the definition of a qualified bicycle commuting reimbursement as a qualified transportation fringe, so that such taxable benefits are excepted from the deduction disallowance of section 274(a). See IRS Publication 15-B, *Employer's Tax Guide to Fringe Benefits* (revised Feb 5, 2021), p. 22.

Modified qualified bicycle commuting benefit

The proposal modifies the definition of qualified transportation fringe benefits to include any qualified bicycle commuting benefit (in place of any qualified bicycle commuting reimbursement).[27]

The proposal defines a qualified bicycle commuting benefit for a calendar year as (1) any employer reimbursement during the 15-month period beginning with the first day of the calendar year for reasonable expenses incurred by the employee during such calendar year for the purchase (including associated finance charges), lease, rental (including a bikeshare), improvement, repair, or storage of qualified commuting property, or (2) the provision by the employer to the employee during the calendar year of the use (including a bikeshare), improvement, repair, or storage of qualified commuting property. To constitute a qualified bicycle commuting benefit the employee must use the qualified commuting property for travel between the employee's residence, place of employment, or a mass transit facility that connects an employee to their residence or place of employment.

Qualified commuting property is a bicycle (not equipped with any motor), an electric bicycle,[28] a two- or three-wheeled scooter (not equipped with any motor), or a two- or three-wheeled electric scooter weighing not more than 100 pounds that either (1) does not provide assistance at speeds exceeding 20 mile per hour or (2) cannot reach speeds exceeding 20 miles per hour.

A bikeshare is a rental operation at which qualified commuting property is made available to customers to pick up and drop off for point-to-point use withing a defined geographic area.

Modified limitations on exclusion

Qualified bicycle commuting reimbursements are excludable from an employee's gross income up to 30 percent of the dollar limitation on qualified transportation fringe benefits per month.[29]

The proposal modifies the limitation on constructive receipt such that qualified bicycle commuting benefits are treated the same as other qualified transportation fringe benefits.[30] That is, a bicycle commuting benefit can be funded by an elective salary contribution on the part of an employee.

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[27] Sec. 132(f)(1).

[28] Within the meaning of proposed section 36E regarding the electric bicycle credit.

[29] The monthly limitation for qualified transportation fringe benefits is $270 for taxable years beginning in 2021. See section 3.18 of Rev. Proc. 2020-45. 2020-46 I.R.B 1016 (November 9, 2020).

[30] The proposal modifies section 132(f)(4) such that the exception applies to qualified bicycle commuting benefits.

Effective Date

The proposal is effective for taxable years beginning after December 31, 2021.

7. Credit for certain new electric bicycles

Present law

Certain bicycle commuting expenses provided to employees are deductible to employers under present law. A description of this provision may be found above in the section describing the reinstatement and expansion of employer-provided fringe benefits for bicycle commuting.

Description of Proposal

In general

The proposal creates a new refundable credit for each qualified electric bicycle placed in service by a taxpayer (the "electric bicycle credit"). The credit amount is 15 percent of the cost of a qualified electric bicycle.

Limitations on credit amount

The cost taken into account for calculating the amount of credit my not exceed $5,000 for any qualified electric bicycle.

The number of bicycles taken into account for calculating the amount of the credit for a taxpayer for a taxable year cannot exceed one (two in the case of joint return) and must be reduced by the aggregate number of bicycles for which a credit was claimed by the taxpayer for the preceding two taxable years.

The credit is reduced by $200 for every $1,000 by which the taxpayer's AGI exceeds $150,000, $112,500, or $75,000 in the case of a joint return or surviving spouse, head of household, or any other taxpayer, respectively.

Qualified electric bicycle

A qualified electric bicycle is a bicycle (1) for which the original use commences with the taxpayer, (2) acquired for use by the taxpayer and not for resale, (3) made by a qualified manufacturer and labeled with a qualified vehicle identification number, (4) that costs not more than $8,000, and (5) that satisfies certain equipment requirements. These equipment requirements are (1) fully operable pedals, (2) a saddle or seat for the rider, and (3) an electric motor of less than 750 watts designed to provide assistance in propelling the vehicle and (a) does not provide assistance if the bicycle is moving in excess of 20 miles per hour, or (b) if assistance is provided only while the rider is pedaling, does not provide assistance if the bicycle is moving in excess of 28 miles per hour.

The proposal adds a requirement that taxpayers must list the qualified vehicle identification number on their returns for the taxable year to claim the electric bicycle credit.

The proposal also gives the IRS mathematical error authority for taxpayers who omit the qualified vehicle identification number.

Qualified manufacturer

The proposal requires that qualified electric bicycles be made by qualified manufacturers. A qualified manufacturer is a manufacturer which agrees to (1) ensure that vehicle identification numbers are assigned to each qualified electric bicycle, (2) label each qualified electric bicycle in a manner as the Secretary may provide, and (3) make periodic written reports to the Secretary providing vehicle identification numbers assigned to qualified electric bicycles and other information the related to such qualified electric bicycles as the Secretary may require. The vehicle identification numbers required for qualified manufacturers must use a methodology that ensures that each number is unique to each bicycle.[31]

Special rules

The proposal requires that the basis of any property for which an electric bicycle credit is taken be reduced by the amount of such credit. The amount of any deduction or other credit allowable for a qualified electric bicycle must be reduced by the amount of electric bicycle credit taken. Electric bicycles must be used in United States in order to qualify for the credit. The Secretary is directed to issue regulations to require the recapture of the credit for property that ceases to be eligible. Finally, a taxpayer may elect not to have the electric bicycle credit apply to any bicycle.

Payments to territories

Mirror Code territories

The proposal directs the Secretary to makes payments to each of Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands in an amount equal to the loss in revenue by reason of the application of the electric bicycle credit to the territory's mirror Code for the taxable year. The amount is determined by the Secretary based on information provided by the government of the territory.

Nonmirror Code territories

The proposal directs the Secretary to make payments to each of American Samoa and Puerto Rico in an amount equal to the loss in revenue for operating a similar electric bicycle credit, if the territory establishes a similar electric bicycle credit approved by the Secretary with a plan to promptly distribute such payments to its residents.

[31] This may be achieved by using numbers or letters unique to each manufacturer or by some other method as the Secretary may provide.

Electric bicycle credit termination

The credit does not apply to bicycles placed in service after December 31, 2031.

Effective Date

The proposal applies to property placed in service after the date of enactment, in taxable years ending after such date.

E. Investment in the Green Workforce

1. Extension of the advanced energy project credit

Present Law

Eligible Activity	Description	Credit Amount	Expiration
Advanced energy project credit (sec. 48C)	• 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

Description of Proposal

In general

Under the proposal, the 30-precent credit for investment in qualified property used in a qualified advance energy manufacturing project is provided new allocations and modified as follows.

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 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 capture and use or sequester carbon oxide emissions; (5) property designed to refine or blend renewable fuels or to produce energy conservation technologies (including energy-conserving lighting technologies and smart grid technologies); (6) certain alternative fuel vehicles[32] or components which are designed specifically for use with such vehicles, including electric motors, generators, power control units, and equipment used for charging or refueling; (7) property designed to be used to produce

[32] These are vehicles described in proposed sections 36C (the refundable credit for new qualified plug-in electric drive motor vehicles), 45Y (the credit for qualified commercial electric vehicles), and 36E (the refundable credit for electric bicycles).

qualified clean hydrogen;[33] or (8) 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 facility that recycles batteries or similar energy storage property.[34]

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.

Additional allocations

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 proposal. The proposal provides additional base annual allocations of $2.5 billion in credits for calendar years 2022 through 2031. $400 million of each base annual allocation must allocated to projects in automotive communities.[35] Unallocated credit amounts may be allocated in succeeding calendar years. The amount of credits allocated in a year may not exceed the sum of the base annual allocation and any unallocated credit amounts from prior calendar years. While no base annual allocations are provided for calendar years after 2031, unallocated credit amounts may still be allocated until 2036, five years after the final base annual allocation. No credit is allowed for any qualified investment that was allowed a credit under sections 48, 48A, or 48B.

Selection criteria

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 qualified apprenticeship requirements are satisfied by ensuring that not less than 15 percent (five percent for projects the construction of which begins before calendar year 2023 and 10 percent for

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[33] As defined in proposed section 45X.

[34] As defined in section 48(c)(1)(A)(i).

[35] An automotive community is a census tract that has experienced major job losses in the automotive manufacturing sector since January 1, 1994, as determined by the Secretary in consultation with the Secretary of Energy and Secretary of labor, or a census tract that is immediately adjacent to one such census tract.

projects beginning in calendar year 2023) of the total labor hours are performed by qualified apprentices.[36]

In addition, the Secretary must give highest priority to projects that manufacture (other than primarily assembly of components) property, or components thereof, in any of the eight categories listed above which define a qualified advanced energy project, and have the greatest potential for commercial deployment of new applications. The Secretary must also consider other selection criteria, including which projects (1) will provide the greatest net impact in avoiding or reducing anthropogenic emissions of greenhouse gases as determined by the Secretary in consultation with the EPA administrator, (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 communities[37] and dislocated workers previously employed in manufacturing, coal power plants, or coal mining, (4) will provide the greatest job creation in areas with a population at risk of experiencing higher or more adverse human health or environmental effects where a significant portion of such population is comprised of communities of color, low-income communities, Tribal and Indigenous communities, or individual formerly employed in the fossil fuel industry, (5) have the lowest levelized cost of generated or stored energy, or of measured reduction in energy consumption of greenhouse gas emissions, and (6) have the shortest project time from certification to completion.[38]

Certification

Each project application must be submitted at such time and manner as the Secretary may require. An applicant for certification has two years from the date the Secretary accepts the application to provide the Secretary with evidence that the requirements for certification have been met. Upon certification, the applicant has two years from the date of issuance of the certification to place the project in service.

Disclosure

Upon allocation of a credit, the Secretary is directed to publicly disclose the identity of the applicant, the amount of credit, and the location of the project for which the allocation is provided.

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[36] These apprenticeship requirements are similar to those that apply for section 30C. A description of these requirements is provided above in the section describing the enhanced alternative refueling property credit.

[37] Within the meaning of section 45D(e).

[38] The proposal adds several new criteria as described in addition to factors described in section 48C(d)(3)(B).

Direct pay

Taxpayers may elect to receive a direct payment in lieu of this credit under the rules described in the earlier proposal providing for an elective payment for energy property and electricity from certain renewable resources.

Effective Date

The proposal is effective on date of enactment.

2. Labor costs of installing mechanical insulation property

Present Law

Present law does not contain any specific tax incentives for the installation of mechanical insulation.

Description of Proposal

The proposal creates a new 10-percent general business credit for mechanical insulation labor costs paid or incurred by the taxpayer during a taxable year. Mechanical insulation labor costs are the labor costs of installing mechanical insulation property with respect to a mechanical system located in the United States. Mechanical insulation property is depreciable property consisting of insulation materials, as well as facings and accessory products installed in connection to such insulation materials, placed in service in connection with a mechanical system that meets the requirements of title 10, section 434.403 of the Code of Regulations, which results in a reduction in energy loss from the mechanical system that is greater than the expect reduction from the installation of insulation materials meeting the minimum requirements of Reference Standard 90.1 (as defined in section 179D(c)(2)). The credit expires for costs paid or incurred after December 31, 2031.

Effective Date

The proposal is effective for amounts paid or incurred after December 31, 2021, in taxable years ending after such date.

F. Qualified Environmental Justice Program Credit

Present Law

Present law does not provide a tax incentive specifically for costs incurred as part of an environmental justice program.

Description of Proposal

The proposal creates a new refundable tax credit for eligible educational institutions that incur costs during the taxable year as part of a qualified environmental justice program that receives a credit dollar allocation from the Secretary.[39] The proposal establishes an application process by which eligible institutions apply to the Secretary for an allocation of credit for an applicable percentage of costs incurred with respect to their qualified environmental justice programs. The applicable percentage is 30 percent with respect to a program involving material participation of faculty and students of an institution described in section 371(a) of the Higher Education Act of 1965, and 20 percent in all other cases. The Secretary is required to publish the identity of each eligible educational institution receiving an allocation and the amount of the allocation.

The Secretary is authorized to allocate $1 billion per year for the period 2022 through 2031 to the selected eligible educational institutions. Applications are submitted in such form and at such time as prescribed by the Secretary. After consultation with the Secretaries of Energy, Education, and Health and Human Services, the Secretary is to select programs for an allocation based on the following criteria:

- The extent of participation of faculty and students of an institution described in section 371(a) of the Higher Education Act of 1965.
- The extent of the expected effect on the health or economic outcomes of individuals residing in areas within the United States that are low-income areas or areas that experience, or are at risk of experiencing, multiple exposures to qualified environmental stressors
- The creation or significant expansion of qualified environmental justice programs.

The Secretary is required to publish the identity of each eligible educational institution receiving an allocation and the amount of the allocation.

Applicants selected to receive an allocation are required to make their submitted applications publicly available and are required to report annually to the Secretary the amounts paid or incurred, and the expected impact of the project. Failure to comply with these requirements reduces the eligible educational institution's allocation to zero.

[39] The term 'eligible educational institution' means an institution of higher education (as such term is defined in section 101 or 102(c) of the Higher Education Act of 1965) that is eligible to participate in a program under title IV of such Act.

The eligible educational institution has five years after receiving an allocation to incur costs eligible for the credit. The amount of credit for any taxable year is limited to the credit dollar amount allocated to such program less any credits previously claimed for such program.

Effective Date

The proposal is effective on the date of enactment.

G. Reinstatement of Superfund

Prior Law

The Superfund program addresses cleanup activity of hazardous substances at contaminated sites. Before January 1, 1996, an excise tax on domestic crude oil and imported petroleum products (the "Hazardous Substance Superfund financing rate") was imposed at the rate of 9.7 cents per barrel.[40] The Hazardous Substance Superfund financing rate ceased to apply after December 31, 1995.

Description of Proposal

The Hazardous Substance Superfund financing rate is reinstated at 16.4 cents per barrel. The tax is annually indexed for inflation beginning with calendar year 2023.

Effective Date

The proposal is effective on January 1, 2022.

[40] Sec. 4611(c)(2)(A).