Congressional Research Service
Informing the legislative debate since 1914

Energy Tax Provisions: Overview and Budgetary Cost

August 3, 2021

Congressional Research Service
https://crsreports.congress.gov
R46865

CRS REPORT
Prepared for Members and
Committees of Congress

Contents

Tables

Table 1. Renewable Energy Tax Incentives 2
Table 2. Energy Efficiency Tax Incentives 5
Table 3. Tax Incentives for Vehicles and Vehicle Infrastructure 7
Table 4. Renewable and Alternative Fuels Tax Incentives 8
Table 5. Fossil Fuels Tax Incentives 10
Table 6. Carbon Capture and Sequestration, Nuclear, and Other Tax Incentives 15

Contacts

Author Information 18

The 117th Congress is considering multiple proposals that would deploy energy tax provisions to pursue climate-related or infrastructure investment policy objectives. On May 26, 2021, the Senate Finance Committee passed the Clean Energy for America Act (S. 1298).[1] This legislation proposes tax credits for non-greenhouse gas (GHG)-emitting electricity generating technologies, with the provisions phasing out once emissions reductions targets are achieved. The legislation also proposes tax incentives for clean fuels (as defined in the bill) and transportation electrification, as well as for building energy efficiency, and would provide various other tax incentives for "clean energy." Qualifying projects would be required to meet certain workforce development requirements and pay prevailing wages. Tax incentives supporting fossil fuels would be repealed. The Joint Committee on Taxation (JCT) has estimated that this proposal would reduce federal revenues by $259.4 billion between FY2022 and FY2031.[2]

The Biden Administration's "American Jobs Plan" also proposes substantial modifications to energy tax policy. The Administration's proposal would expand and extend existing tax incentives supporting renewables, provide incentives for zero-emissions vehicles and electric vehicle infrastructure, expand tax incentives for building energy efficiency, and provide various other "clean energy" tax incentives. Tax incentives supporting fossil fuels would be repealed. The Treasury has estimated that the Administration's proposed energy tax policies would reduce federal revenues by $302.9 billion between FY2022 and FY2031.[3]

This report provides background information on current-law energy tax provisions. Specifically, the report includes a series of tables, each of which includes (1) the name of the provision and its Internal Revenue Code (IRC) citation; (2) a brief description of the provision; (3) the law first enacting the provision; (4) when the provision expires (if applicable) under current law; and (5) a cost estimate (if available).[4] For the purposes of this report, energy tax provisions have been categorized as follows:

- Renewable energy tax incentives (**Table 1**)
- Energy efficiency tax incentives (**Table 2**)
- Tax incentives for vehicles and vehicle infrastructure (**Table 3**)
- Renewable and alternative fuels tax incentives (**Table 4**)
- Fossil fuel tax incentives (**Table 5**)
- Carbon capture and sequestration (CCS), nuclear, and other tax incentives (**Table 6**)

[1] Information and files related to Senate Finance Committee consideration of this legislation can be found at https://www.finance.senate.gov/hearings/open-executive-session-to-consider-an-original-bill-entitled-the-clean-energy-for-america-act. On June 17, 2021, the Clean Energy for America Act (S. 2118) was introduced.

[2] Joint Committee on Taxation, *Estimated Revenue Effects of the Revenue Provisions Contained in the Chairman's Modification of the "Clean Energy for America Act," Scheduled for Markup by the Committee on Finance on May 26, 2021*, JCX-29-21, May 26, 2021, at https://www.jct.gov/publications/2021/jcx-29-21/.

[3] Department of the Treasury, *General Explanations of the Administration's Fiscal Year 2022 Revenue Proposals*, May 2021, at https://home.treasury.gov/system/files/131/General-Explanations-FY2022.pdf.

[4] The cost estimates are generally tax expenditure estimates, as provided in Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020. These estimates reflect tax laws enacted through September 30, 2020, and assume that temporary provisions expire as scheduled. If legislation enacted after September 30, 2020, extended the provision, the cost estimate associated with that extension is noted.

Table 1. Renewable Energy Tax Incentives

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Residential energy-efficient property credit (IRC §25D)	A tax credit for the purchase of solar electric property, solar water heating property, fuel cells, geothermal heat pump property, or small wind energy property. Through 2019, the tax credit was 30% of the cost of qualifying property. Qualified biomass fuel property is eligible after 2020. The tax credit is reduced to 26% for property placed in service in 2020, 2021, and 2022 and 22% for property placed in service in 2023. The tax credit for fuel cells is limited to $500 for each 0.5 kilowatt of capacity.	Energy Policy Act of 2005 (EPACT05; P.L. 109-58)	Property placed in service by December 31, 2023.	FY2020: $1.8 FY2020-FY2024: $3.6 Extension in P.L. 116-260: $3.8 (FY2021-FY2030)
Renewable electricity production tax credit (PTC) (IRC §45)	A tax credit for electricity produced using qualifying renewable energy resources. The tax credit equals 2.5 cents per kWh for electricity produced from wind, closed-loop biomass, and geothermal energy in 2021. The tax credit equals 1.3 cents per kWh for electricity produced from open-loop biomass, landfill gas, trash combustion, qualified hydropower, and marine and hydrokinetic sources in 2021. Tax credit amounts are adjusted annually for inflation. The tax credit is available for 10 years after the date the facility is placed in service. Taxpayers may elect to receive a 30% investment tax credit (ITC) in lieu of the PTC. The tax credit for wind is reduced by 20% for facilities that began construction in 2017, 40% for facilities that began construction in 2018; 60% for facilities that began construction in 2019; and 40% for facilities that began construction in 2020 or 2021. For more, see CRS Report R43453, *The Renewable Electricity Production Tax Credit: In Brief*, by Molly F. Sherlock.	Energy Policy Act of 1992 (EPACT92; P.L. 102-486)	Construction must begin by December 31, 2021.	FY2020: $4.6 FY2020-FY2024: $17.0 Extension in P.L. 116-260: $1.7 (FY2021-FY2030)

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Energy investment tax credit (ITC) (IRC §48)	A tax credit for investments in qualifying energy property. Investments in geothermal, microturbine, or combined heat and power (CHP) property qualify for a 10% credit. From 2006 through 2019 the credit rate was increased to 30% for solar, fuel cells, and small wind property. The tax credit rate for these technologies is 26% through 2022 and 22% in 2023. Waste energy recovery property is eligible for the ITC after 2020, at the increased credit amounts. Offshore wind facilities that begin construction after 2016 are eligible for a 30% credit. For more, see CRS In Focus IF10479, *The Energy Credit or Energy Investment Tax Credit (ITC)*, by Molly F. Sherlock.	The Energy Tax Act of 1978 (P.L. 95-618)	Construction must begin by December 31, 2023, except for geothermal and solar, where there is a permanent 10% credit. For offshore wind property, construction must begin by December 31, 2025.	FY2020: $6.8 FY2020-FY2024: $35.5 Extension in P.L. 116-260: $7.0 (FY2021-FY2030) Application of credit to waste energy recovery and offshore wind in P.L. 116-260: $0.6 (FY2021-FY2030)
Credit for investment in advanced energy property (IRC §48C)	A 30% tax credit for selected qualified investments in advanced energy property. A total of $2.3 billion was allocated for advanced energy property investment tax credits, which were competitively awarded by the Departments of Energy (DOE) and the Treasury.	American Recovery and Reinvestment Act (ARRA; P.L. 111-5)	Allocation limit; credits fully allocated.	FY2020: (i) FY2020-FY2024: $0.4
Credit for holders of clean renewable energy bonds (IRC §§54, 54C)	An income tax credit for holders of the bond. Clean Renewable Energy Bonds (CREBs) are subject to a volume cap of $1.2 billion with a credit rate set to allow the bond to be issued at par and without interest. New Clean Renewable Energy Bonds (New CREBs) are subject to a volume cap of $2.4 billion with a credit rate set at 70% of what would permit the bond to be issued at par and without interest. Tax credit bonds were repealed in the 2017 tax revision (commonly called the "Tax Cuts and Jobs Act" [TCJA]; P.L. 115-97).	EPACT05 (P.L. 109-58) Energy Improvement and Extension Act of 2008 (P.L. 110-343)	Allocation limit; authority to issue repealed in P.L. 115-97.	FY2020: (i) FY2020-FY2024: $0.3

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Depreciation recovery periods for energy-specific items: five-year MACRS for certain energy property (IRC §168(e)(3)(B)(vi))	Accelerated depreciation allowances are provided under the modified accelerated cost recovery system (MACRS) for investments in certain energy property. Specifically, certain solar, wind, geothermal, fuel cell, microturbine, CHP, waste energy recovery, and biomass property have a five-year recovery period.	Tax Reform Act of 1986 (P.L. 99-514)	Construction must begin by December 31, 2023, for solar illumination, fuel cell, microturbine, CHP, small wind, geothermal heat pump, and waste energy recovery property. None otherwise.	FY2020: (i) FY2020-FY2024: $0.3

Sources: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020.

Notes: IRC = Internal Revenue Code. kWh = kilowatt-hour. MACRS = modified accelerated cost recovery system. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

Table 2. Energy Efficiency Tax Incentives

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Credit for energy-efficient improvements to existing homes/nonbusiness energy property credit (IRC §25C)	A 10% tax credit for qualified energy-efficiency improvements and expenditures for residential energy property including qualifying improvements to the building's envelope, the HVAC system, furnaces, or boilers. The credit is subject to a $500 per taxpayer lifetime limit. Property must be installed in the taxpayer's primary residence.	EPACT05 (P.L. 109-58)	Property installed by December 31, 2021.	FY2020: $0.5 FY2020-FY2024: $0.8 Extension in P.L. 116-260: $0.4 (FY2021-FY2030)
Credit for energy-efficient new homes (IRC §45L)	A tax credit for eligible contractors for building and selling qualifying energy-efficient new homes. The credit is equal to $2,000, with certain manufactured homes qualifying for a $1,000 credit.	EPACT05 (P.L. 109-58)	Property acquired by December 31, 2021.	FY2020: $0.2 FY2020-FY2024: $0.6 Extension in P.L. 116-260: $0.3 (FY2021-FY2030)
Credit for holders of qualified energy conservation bonds (IRC §54D)	The federal government has authorized the issue of $3.2 billion in Qualified Energy Conservation Bonds (QECBs). QECBs provide a tax credit worth 70% of the tax credit bond rate stipulated by the Secretary of the Treasury. QECBs issued by state and local governments must fund an energy-savings project, such as the green renovation of a public building, R&D in alternative fuels, and public transportation projects. Tax credit bonds were repealed in the 2017 tax revision (TCJA; P.L. 115-97).	Energy Improvement and Extension Act of 2008 (P.L. 110-343)	Allocation limit (allocated to the states); authority to issue repealed in P.L. 115-97.	FY2020: (i) FY2020-FY2024: $0.1
Exclusion of energy conservation subsidies provided by public utilities (IRC §136)	Subsidies provided by public utilities to customers for the purchase or installation of energy conservation measures are excluded from taxable income. For the purposes of this provision, public utilities are entities selling electricity or natural gas.	EPACT92 (P.L. 102-486)	none	FY2020: (i) FY2020-FY2024: $0.1

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Exclusion of interest on state and local qualified private activity bonds for green buildings and sustainable design projects (IRC §142(a)(14))	Tax-exempt private activity bonds can be issued to finance (or refinance) qualified green building and sustainable design projects.	American Jobs Creation Act of 2004 (P.L. 108-357)	Does not apply to any bond issued after September 30, 2012.	*de minimis*
Energy-efficient commercial building deduction (IRC §179D)	A deduction of up to $1.80 per square foot is allowed for certain energy-saving property used in domestic commercial buildings. Qualifying energy-efficient commercial building property includes property installed as part of (1) the interior lighting system; (2) the heating, cooling, ventilation, or hot water system; or (3) the building envelope. To be deductible, property must reduce a building's annual energy and power costs by 50% or more as compared to a similar reference building meeting certain minimum energy standards. A reduced deduction may be available if a single system is upgraded (lighting, heating and cooling, or building envelope) and the 50% reduction threshold is not met. Government entities making energy-efficiency upgrades to public buildings, such as schools, can allocate the Section 179D deduction to designers of energy-efficient commercial building property.	EPACT05 (P.L. 109-58)	none	FY2020: (i) FY2020-FY2024: $0.1 Extension in P.L. 116-260: $0.7 (FY2021-FY2030)

Source: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020.

Notes: IRC = Internal Revenue Code. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

Table 3. Tax Incentives for Vehicles and Vehicle Infrastructure

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Credits for fuel cell vehicles (IRC §30B)	A tax credit for fuel cell vehicles. Fuel cell vehicles receive a base credit of $4,000 for vehicles weighing less than 8,500 pounds. Heavier vehicles qualify for up to a $40,000 credit. An additional credit of up to $4,000 is available for cars and light trucks that exceed the 2002 base fuel economy.	EPACT05 (P.L. 109-58)	Property purchased by 12/31/2021.	*de minimis*
Credit for alternative fuel refueling property (IRC §30C)	A tax credit for the cost of any qualified alternative fuel vehicle refueling property installed by a business or at a taxpayer's principal residence. The credit is equal to 30% of these costs, limited to $30,000 for businesses at each separate location with qualifying property, and $1,000 for residences.	EPACT05 (P.L. 109-58)	Property placed in service by 12/31/2021.	FY2020: (i) FY2020-FY2024: $0.1 Extension in P.L. 116-260: $0.2 (FY2021-FY2030)
Credit for plug-in electric vehicles (IRC §30D)	A tax credit for the purchase of qualifying plug-in electric vehicles. The credit ranges from $2,500 to $7,500 per vehicle, depending on the vehicle's battery capacity. The tax credit phases out once a vehicle manufacturer has sold 200,000 qualifying vehicles. If the vehicle is purchased by a tax-exempt organization, the seller of the vehicle may be able to claim the credit. For more, see CRS In Focus IF11017, *The Plug-In Electric Vehicle Tax Credit*, by Molly F. Sherlock.	Energy Improvement and Extension Act of 2008 (P.L. 110-343)	Credit phases out after reaching a 200,000 per-manufacturer limit.	FY2020: $0.7 FY2020-FY2024: $3.0
Credit for electric motorcycles (IRC §30D)	A 10% credit, up to $2,500, is available for the cost of two-wheeled plug-in electric vehicles. Eligible vehicles must have a weight rating of less than 14,000 pounds; be propelled by a battery-powered electric motor with a battery capacity of at least 2.5 kilowatt-hours; be manufactured for use on streets, roads, and highways; and be capable of achieving a speed of at least 45 miles per hour.	ARRA (P.L. 111-5)	Property purchased by 12/31/2021.	*de minimis*

Sources: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020.

Notes: IRC = Internal Revenue Code. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

Table 4. Renewable and Alternative Fuels Tax Incentives

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Credit for second-generation biofuel production (IRC §40(a)(4))	A per-gallon tax credit for qualified second-generation biofuel production. The amount of the credit is generally $1.01 per gallon. Qualifying fuels include cellulosic biofuel, which is produced using lignocellulosic or hemicellulosic matter (cellulosic feedstock) available on a renewable or recurring basis, as well as second-generation biofuels, which include cultivated algae, cyanobacteria, or lemna.	The Food, Conservation, and Energy Act of 2008 (P.L. 110-246)	Fuel produced by 12/31/2021.	*de minimis* Extension in P.L. 116-260: (i) (FY2021-FY2030)
Credits for biodiesel and renewable diesel fuel (IRC §§40A, 6526, & 6427)	There are three tax credits for biodiesel: the biodiesel mixture credit, the biodiesel credit, and the small agri-biodiesel producer credit. Each gallon of biodiesel, including agri-biodiesel (biodiesel made from virgin oils), may be eligible for a $1.00 tax credit. Additionally, an eligible small agri-biodiesel producer credit of 10 cents is available for each gallon of "qualified agri-biodiesel production." The mixtures tax credit may be claimed as an instant excise tax credit against the blender's motor and aviation fuels excise taxes. Credits in excess of excise tax liability may be refunded. The biodiesel and small agri-biodiesel credits may be claimed as income tax credits.	American Jobs Creation Act of 2004 (P.L. 108-357)	Fuel sold, used, or removed by 12/31/2022.	FY2020: $8.1[b] FY2020-FY2024: $15.2[b]
50-percent expensing of cellulosic biofuel plant property (IRC §168(l))	Second-generation biofuel plant property was allowed an additional first-year depreciation deduction equal to 50% of the property's adjusted basis.	Tax Relief and Health Care Act of 2006 (P.L. 109-432)	Property placed in service by 12/31/2020.	*de minimis*

Provision	Description	Enacting Legislation	Expiration Date	Cost or Tax Expenditure Estimate (billions)[a]
Alternative Fuels and Alternative Fuels Mixture Credit (IRC §§6426 & 6427)	A tax credit for certain alternative fuels and alternative fuels mixtures. The credit is a 50-cents-per-gallon excise tax credit for certain alternative fuels used as fuel in a motor vehicle, motor boat, or airplane and a 50-cents-per-gallon credit for alternative fuels mixed with a traditional fuel (gasoline, diesel, or kerosene) for use as a fuel. Qualifying fuels include liquefied petroleum gas; P Series fuels (certain renewable, nonpetroleum, liquid fuels); compressed or liquefied natural gas (CNG or LNG); any liquefied fuel derived from coal or peat through the Fischer-Tropsch process that meets certain carbon-capture requirements; liquefied hydrocarbons derived from biomass; and liquefied hydrogen.	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU; P.L. 109-59)	Fuel sold or used by 12/31/2021.	FY2020: $0.2[c] FY2020-FY2024: $0.3[c] Extension in P.L. 116-260: $0.2 (FY2021-FY2030)

Sources: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020; Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In The House Amendment To The Senate Amendment To H.R. 1865, the Further Consolidated Appropriations Act, 2020*, JCX-54R-19, December 17, 2019.

Notes: IRC = Internal Revenue Code. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

b. The tax incentives for biodiesel and renewable diesel were extended for five years, through 2022, in the Further Consolidated Appropriations Act of 2020 (P.L. 116-94). This cost estimate reflects the extension, as estimated in Joint Committee on Taxation, *Estimated Budget Effects of the Revenue Provisions Contained in the House Amendment to the Senate Amendment to H.R. 1865, the Further Consolidated Appropriations Act 2020 (Rules Committee Print 116-44)*, JCX-54R-19, December 17, 2019. The income tax credit portion is *de minimis*.

c. The tax incentives for alternative fuels and alternative fuel mixtures were extended for one year, through 2021, in the Consolidated Appropriations Act, 2021 (P.L. 116-260). This cost estimate is the estimate associated with that extension.

Table 5. Fossil Fuels Tax Incentives

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Enhanced Oil Recovery (EOR) Credit (IRC §43)	A tax credit for Enhanced Oil Recovery (EOR) costs available when oil prices are below a certain threshold. The credit amount is 15% of qualified domestic EOR costs. The EOR credit phases out over a $6 range once oil's reference price exceeds $28 per barrel (adjusted for inflation after 1991; $49.392 in 2019). The EOR credit was fully phased out every year from 2006 through 2016. Low oil prices led to the EOR credit becoming available in 2016 and 2017. A partial credit was available for 2018, but it was fully phased out in 2019 and 2020. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock; and CRS Insight IN11381, *Low Oil Prices May Trigger Certain Tax Benefits, but Not Others*, by Molly F. Sherlock and Phillip Brown.	Omnibus Budget Reconciliation Act of 1990 (P.L. 101-508)	None	*de minimis*
Coal Production Credits: Refined Coal and Indian Coal (IRC §45)	A tax credit for Indian coal produced from reserves that were owned by an Indian tribe or held in trust by the United States for a tribe on June 14, 2005. The amount of the credit is $2.00 per ton (adjusted for inflation; $2.60 per ton in 2021). Tax credits may also be available for refined coal produced at refined coal production facilities placed in service after the date of the enactment of the American Jobs Creation Act of 2004 and before January 1, 2012.	EPACT05 (P.L. 109-58)	Coal produced by 12/31/2021	FY2020: (i) FY2020-FY2024: $0.2 Extension in P.L. 116-260: (i) (FY2021-FY2030)

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Credit for producing oil and gas from marginal wells (IRC §451)	A tax credit for producing oil and gas from marginal wells, available when oil and gas prices are below certain thresholds. The credit amount is $3 per barrel of qualified crude oil and 50 cents per 1,000 cubic feet (mcf) of qualified natural gas (adjusted for inflation after 2005; $3.90 for oil and 65¢ for gas in 2019; 66¢ for gas in 2020). The credit starts phasing out if the reference price for oil exceeds $15 per barrel or natural gas exceeds $1.67 per mcf for the preceding year (adjusted for inflation after 2005; $19.52 for oil and $2.17 for gas in 2019; $2.21 for gas in 2020). The credit is fully phased out if the reference price exceeds $18 per barrel or $2.00 per mcf (adjusted for inflation after 2005; $23.43 for oil and $2.60 for gas in 2019). The credit for crude oil has never been triggered. In 2016 and 2017, and again in 2019, a partial credit (in the phaseout range) was available for natural gas. For 2020 the credit for natural gas was not phased out; the full 66¢ per mcf credit was available. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock; and CRS Insight IN11381, *Low Oil Prices May Trigger Certain Tax Benefits, but Not Others*, by Molly F. Sherlock and Phillip Brown.	American Jobs Creation Act of 2004 (P.L. 108-357)	None	*de minimis*
Credits for Investments in Clean Coal Facilities (IRC §§48A and 48B)	A tax credit allocated for investment in certain advanced coal technologies. In EPACT05, the tax credit was 20% of investment for integrated gasification combined cycle (IGCC) systems and 15% for other advanced coal-based generation technologies. Additional allocations for a 30% advanced coal-based generation technologies credit were provided in the Energy Improvement and Extension Act of 2008 (P.L. 110-343). Credit allocations are available due to forfeitures of previously allocated credits. Round 3 Phase III credits being allocated in 2021 are 30% for IGCC or other advanced coal-based generation technologies. Credits were also allocated for gasification projects, with the credit amount equal to 30% (20% for credits allocated or reallocated before October 4, 2008). In 2016 the IRS announced no additional allocation rounds would be conducted under the qualifying gasification project program.	EPACT05 (P.L. 109-58)	Credits allocated. $2 billion of §48A credits are available for allocation in Round 3 of the Phase III Program, taking place in 2021.	FY2020: $0.2 FY2020-FY2024: $1.2

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Safe harbor from arbitrage rules for prepaid natural gas (IRC §148(b)(4))	This provision allows tax-exempt bonds to be used to finance prepaid natural gas contracts without applying otherwise applicable arbitrage rules.	EPACT05 (P.L. 109-58)	None	Not available.
Amortization of Geological and Geophysical Expenditures Associated with Oil and Gas Exploration (IRC §167(h))	Geological and geophysical (G&G) expenditures are costs associated with determining the location and potential size of a natural resource or mineral deposit. Generally, these costs are viewed as capital costs, and as such would be recovered over the same time frame as other capital costs. Most producers amortize G&G expenditures over two years. Major integrated oil companies amortize G&G expenditures over seven years. A major integrated oil company, as defined in statute, has (1) average daily worldwide production of crude oil of at least 500,000 barrels; (2) gross receipts in excess of $1 billion in its tax year ending during 2005; and (3) at least 15% ownership interest in a crude oil refinery. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock.	EPACT05 (P.L. 109-58)	None	FY2020: $0.1 FY2020-FY2024: $0.5
Seven-year MACRS Alaska natural gas pipeline (IRC §168(e)(3)(C)(iii))	A seven-year MACRS recovery period is provided for any natural gas pipeline system located in the State of Alaska that has a capacity of more than 500 billion Btu of natural gas per day.	American Jobs Creation Act of 2004 (P.L. 108-357)	None	*de minimis*
Seven-year MACRS for natural gas gathering lines (IRC §168(e)(3)(C)(iv))	Natural gas gathering lines are treated as 7-year property. A natural gas gathering line consists of the pipe, equipment, and appurtenances determined to be a gathering line by the Federal Energy Regulatory Commission (FERC) or a gathering line used to deliver natural gas to a gas processing plant, an interconnection with a transmission pipeline, or an interconnection with a local distribution company, a gas storage facility, or an industrial consumer.	EPACT05 (P.L. 109-58)	None	Not available.
15-year MACRS Depreciation Recovery Period for Natural Gas Distribution Lines (IRC §168(e)(3)(E)(vi))	A natural gas distribution line, the original use of which commences with the taxpayer after April 11, 2005, and which is placed in service before January 1, 2011, is treated as 15-year property.	EPACT05 (P.L. 109-58)	12/31/2010	FY2020: $0.1 FY2020-FY2024: $0.3

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Amortization of Air Pollution Control Facilities (§§169 and 291(a)(4))	Five-year (60-month) amortization applies to a "certified pollution control facility" used in connection with a plant or other property in operation before January 1, 1976, and to an "atmospheric pollution control facility" placed in service after April 11, 2005, and used in connection with an electric generation plant or other property that is primarily coal fired. Seven-year (84-month) amortization applies only to an "atmospheric pollution control facility" placed in service after April 11, 2005, and used in connection with an electric generation plant or other property that is primarily coal fired and that was placed in operation after December 31, 1975. If an election is made under §169 with respect to any certified pollution control facility, the amortizable basis of the facility is reduced by 20%.	EPACT05 (P.L. 109-58)	None	FY2020: $0.4 FY2020-FY2024: $2.1
Expensing of tertiary injectants (IRC §193)	Taxpayers can deduct tertiary injectant expenses, other than expenses for recoverable hydrocarbon injectants, in the year costs are incurred. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock.	The Crude Oil Windfall Profit Tax Act of 1980 (P.L. 96-223)	None	*de minimis*
Expensing of Intangible Drilling Costs (IDCs) and Exploration and Development Costs (IRC §§263A(c)(3), 263(c), 291(b), 616, 617)	IDCs include expenses on items without salvage value (e.g., wages, fuel, and drilling site preparations). Integrated oil and gas producers (producers who also have substantial refining or retail activities) must capitalize 30% of IDCs and then recover those costs over a five-year period. The remaining 70% of IDCs can be fully expensed (costs deducted in the year they are incurred). Nonintegrated producers can fully expense IDCs. The election to deduct intangible drilling and development costs applies to oil and gas wells and to wells drilled for any geothermal deposit. For mineral properties, exploration and development expenditures are deductible as an expense in the year paid, as opposed to being capitalized. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock.	1916 Treasury regulation (T.D. 45, article 223); codified in 1954 (P.L. 83-591)	None	*Oil and Gas* FY2020: $0.5 FY2020-FY2024: $2.3 *Other Fuels* FY2020: (i) FY2020-FY2024: $0.3

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Passive loss rules for working interests in oil and gas property (IRC §469(c)(3))	Deductions from passive trade or business activities, to the extent they exceed income from all such passive activities, generally may not be deducted against other income (salary, interest, dividends, and active business income). These passive activity loss rules are not applicable to working interests in oil or gas property. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock.	Tax Reform Act of 1986 (P.L. 99-514)	None	FY2020: (i)[b] FY2021-FY2030: $0.2[b] (10-year estimate)
Percentage Depletion (IRC §§611, 613, and 613A)	Certain independent oil and gas producers (producers who are not retailers or refiners) may elect to claim percentage depletion as opposed to cost depletion. The percentage depletion allowance is 15% of gross income from the property, not to exceed (1) 100% of taxable income from the property, and (2) 65% of the taxpayer's taxable income. Oil and gas producers may claim percentage depletion on up to 1,000 barrels of average daily production (or an equivalent amount of domestic natural gas). Percentage depletion rates for other minerals range from 5% to 22%. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock.	Revenue Act of 1926 (P.L. 69-20)	None	*Oil and Gas* FY2020: $0.6 FY2020-FY2024: $2.9 *Other Fuels* FY2020: $0.1 FY2020-FY2024: $0.7
Fossil fuel capital gains treatment (IRC §631(c))	Certain sales of coal under royalty contracts qualify for taxation as capital gains rather than ordinary income. Income from these sales is taxed at the preferred 20% rate applied to capital gains, as opposed to being taxed as ordinary income.	Revenue Act of 1964 (P.L. 88-272)	None	FY2020: $0.1[b] FY2020-FY2029: $1.6[b] (10-year estimate)
Exceptions for Publicly Traded Partnerships with Qualified Income Derived from Certain Energy-Related Activities (IRC §7704)	Publicly traded partnerships are generally treated as corporations. The exception from this rule occurs if at least 90% of its gross income is derived from interest, dividends, real property rents, or certain other types of qualifying income. Qualifying income includes income derived from certain energy-related activities, such as fossil fuel or geothermal exploration, development, mining, production, refining, transportation, and marketing. For more, see CRS In Focus IF11528, *Oil and Gas Tax Preferences*, by Molly F. Sherlock; and CRS Report R41893, *Master Limited Partnerships: A Policy Option for the Renewable Energy Industry*, by Molly F. Sherlock and Mark P. Keightley.	Revenue Act of 1987 (P.L. 100-203)	None	FY2020: $0.3 FY2020-FY2024: $1.8

Sources: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020.

Notes: IRC = Internal Revenue Code. MACRS = modified accelerated cost recovery system. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

b. Exceptions to the passive activity loss rules are not classified as tax expenditures by JCT. These estimates are from the Treasury Department. Treasury Department tax expenditure estimates are available at https://home.treasury.gov/policy-issues/tax-policy/tax-expenditures.

Table 6. Carbon Capture and Sequestration, Nuclear, and Other Tax Incentives

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
Credit for production of electricity from qualifying advanced nuclear power facilities (IRC §45J)	A tax credit for electricity produced from qualifying nuclear facilities. The advanced nuclear production tax credit (PTC) provides a 1.8 cent per kWh tax credit for electricity sold that was produced at qualifying facilities. Criteria for qualifying facilities include that they must use nuclear reactor designs approved by the Nuclear Regulatory Commission after 1993. Qualifying facilities can claim tax credits during the first eight years of production. The credit is restricted to 6,000 megawatts (MW) of total electric generating capacity for all qualifying facilities, with the 6,000 MW allocated by the Internal Revenue Service (IRS). Taxpayers can claim no more than $125 million in tax credits per 1,000 MW of the allocated capacity in any single year.	EPACT05 (P.L. 109-58)	Facilities placed in service by January 1, 2021. The IRS is to allocate unutilized national megawatt capacity after that date.	*de minimis*
Credit for Carbon Oxide Sequestration (IRC §45Q)	A credit for the capture and sequestration of carbon emissions (including carbon dioxide and carbon monoxide). The credit is the sum of four components: (1) $20 (adjusted to $23.82 for 2020) per metric ton of carbon oxide captured using carbon capture equipment placed in service before February 9, 2018, that is not used as a tertiary injectant; (2) $10 (adjusted to $11.91 for 2020) per metric ton of carbon oxide captured using carbon capture equipment placed in service before February 9, 2018, that is used as a tertiary injectant; (3) $31.77 in 2020 per metric ton of carbon oxide captured using carbon capture equipment placed in service on or after February 9,	Energy Improvement and Extension Act of 2008 (P.L. 110-343)	Construction must begin by December 31, 2025.	FY2020: (i) FY2020-FY2024: $0.1 Extension in P.L. 116-260: $0.6 (FY2021-FY2030)

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
	2018, that is not used as a tertiary injectant, during the first 12 years following the facility being placed in service; and (4) $20.22 in 2020 per metric ton of carbon oxide captured using carbon capture equipment placed in service on or after February 9, 2018, that is used as a tertiary injectant, during the first 12 years following the facility being placed in service. Carbon oxide that is not used as a tertiary injectant must be disposed of in a secure geological facility. For carbon dioxide captured at facilities placed in service before February 9, 2018, the credit applies until the IRS, in consultation with the Environmental Protection Agency, certifies that 75 million metric tons of carbon dioxide has been captured or used as a tertiary injectant. As of June 2020, 72 million metric tons of qualified carbon oxide had been taken into account.[b] For more, see CRS In Focus IF11455, *The Tax Credit for Carbon Sequestration (Section 45Q)*, by Angela C. Jones and Molly F. Sherlock.			
10-year MACRS for smart electric distribution property (IRC §§168(e)(3)(D)(iii) and 168(e)(3)(D)(iv))	10-year property includes any qualified smart electric meter and any qualified smart electric grid system. A smart electric meter is a time-based meter and related communication equipment. Smart electric grid systems include property that is used as part of a system for electric distribution grid communications, monitoring, and management.	Energy Improvement and Extension Act of 2008 (P.L. 110-343)	None	FY2020: (i) FY2020-FY2024: $0.2
Transmission Property Treated as 15-year Property (IRC §168(e)(3)(E)(v))	15-year property includes original-use electricity transmission property that is used in the transmission of electricity for sale at 69 or more kilovolts.	EPACT05 (P.L. 109-58)	None	FY2020: (i) FY2020-FY2024: $0.2
Accelerated deductions for nuclear decommissioning costs (IRC §468A)	An eligible taxpayer may deduct cash payments made by the taxpayer to a nuclear decommissioning reserve fund, and to deduct the ratable portion of any special transfer to the fund, even if under the applicable method of accounting the taxpayer would typically claim the deduction in a later tax year.	Deficit Reduction Act of 1984 (P.L. 98-369)	None	Not available
Special tax rate for nuclear decommissioning	A special 20% tax rate for investments made by nuclear decommissioning reserve funds.	Deficit Reduction	None	FY2020: (i) FY2020-FY2024: $0.1

Provision	Description	Enacting Legislation	Expiration Date	Cost[a]
reserve funds (IRC §468A(e)(2))		Act of 1984 (P.L. 98-369)		

Sources: CRS analysis of the Internal Revenue Code; Joint Committee on Taxation, *Estimates Of Federal Tax Expenditures For Fiscal Years 2020-2024*, JCX-23-20, November 5, 2020; and Joint Committee on Taxation, *Estimated Budget Effects Of The Revenue Provisions Contained In Rules Committee Print 116-68, The "Consolidated Appropriations Act, 2021"*, JCX-24-20, December 21, 2020.

Notes: IRC = Internal Revenue Code. kWh = kilowatt-hour. MACRS = modified accelerated cost recovery system. An "(i)" indicates a revenue loss of less than $50 million. A *de minimis* tax expenditure is less than $50 million FY2020-FY2024.

a. This column provides Joint Committee on Taxation tax expenditure estimates for the provision, unless otherwise noted.

b. Internal Revenue Service, *Inflation Adjustment Factor Issued for Sequestration Credit*, IRS Notice 2020-40, June 15, 2020.

Author Information

Molly F. Sherlock
Specialist in Public Finance

Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.