

**SUMMARY – INFLATION REDUCTION ACT OF 2022
H.R. 5736 – AUGUST 16, 2022**

CERTAIN TAX CREDIT RELATED PROVISIONS

Subject	Bill / Code Sec	Effective Dates	Summary	Notes
Wind/Solar PTC	13101 / 45(a)	<ul style="list-style-type: none"> • Generally, facilities PIS after December 31, 2021 • Current PTC phase-out applies only to facilities PIS prior to January 1, 2022, regardless of SoC • Applies to SoC before January 1, 2025 (but see Post-2024 PTC for extension) 	<ul style="list-style-type: none"> • Applies PTC base rate of 0.3¢/kwh subject to 5x increase if meet prevailing wage and apprenticeship requirements, to the extent required • 0.3¢/kwh is multiplied by inflation adjustment factor and rounded to nearest 0.05¢ • When multiplied by 5, produces PTC rate of 2.75¢/kwh, which is higher than the PTC rate prior to phase-out • Allows PTC at same rate for solar projects • For facilities that SoC after date of enactment, reduction in credit for tax exempt bond financing is limited to the lesser of (i) 15%, or (ii) the percentage of capital costs that is financed with such borrowing 	<ul style="list-style-type: none"> • Increase in credit rate for facilities PIS in 2022 may trigger pricing adjustments • Availability of PTC for solar PIS in 2022 may warrant termination of existing ITC financing or commitment • Post-2024 PTC uses different convention to increase PTC for prevailing wage, although whether or not this results in a lower PTC rate depends on applicable inflation factors
Prevailing Wage/Apprenticeship – 5x PTC Multiplier	13101 / 45(b)(6)–(8)	<ul style="list-style-type: none"> • Generally, facilities PIS after December 31, 2021 • Facility with less than 1MWac net output does not need to comply • Facility the construction of which begins prior to the date that is 60 days after published guidance does not need to comply 	<ul style="list-style-type: none"> • Required to pay laborers and mechanics prevailing wages at the rates published for Davis-Bacon Act purposes (40 USC 3141, et cet) • Prevailing wages are required for construction of the facility and for alteration or repair of the facility during the applicable credit period • Failure to satisfy prevailing wage can be remedied through backpay, interest, and penalty of \$5,000 per laborer or mechanic (increased to \$10,000 for intentional disregard) if paid within 180 days of final determination • Not less than the applicable percentage of total labor hours with respect to construction of the facility must be performed by qualified apprentices • Applicable percentage is 10% for SoC in 2022, 12.5% for SoC in 2023, and 15% for SoC thereafter, but subject to any applicable requirements for apprentice-to- 	<ul style="list-style-type: none"> • Wage determinations can be found at https://sam.gov/wage-determinations • Joint Apprenticeship Committee Programs (“JACP”) are programs approved by the DOL or a state-level designee of the DOL with a relevant Union • JACP establishes min ratios of apprentices to journeymen, which minimum ratios will tend to exceed the IRA percentages for projects employing Union labor • Guidance should confirm that SoC grandfathering applies 5% safe harbor or physical work standards under existing guidance

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			<p>journeyworker ratios of the DOL or applicable State apprenticeship agency</p> <ul style="list-style-type: none"> Apprenticeship requirement can be satisfied through good faith efforts to obtain qualified apprentices from a qualified apprenticeship program if request is made and denied or no response received Failure to satisfy apprenticeship requirement can be remedied through penalty payment of \$50 per shortfall hour (increased to \$500 for intentional disregard) 	<ul style="list-style-type: none"> Guidance should also confirm that grandfathering applies if binding, written contract for EPC or BoP work prior to deadline It is not yet clear if ‘repair and alteration’ includes O&M services or are limited costs that are capitalized into assets In contrast to ITC increase (which applies to “energy projects”), requirement applies per “qualified facility” which appears to mean a less than 1MWac turbine or solar facility circuit would be excluded
Domestic Content Bonus – 10% Increase in PTC Rate	13101 / 45(b)(9)	<ul style="list-style-type: none"> Facilities PIS after December 31, 2022 	<ul style="list-style-type: none"> Increases PTC rate by 10% Requires TP to certify that any steel, iron, or manufactured product which is a component of such facility was produced in the United States In the case of steel or iron, the Buy America Requirements set forth in 49 CFR 661.5 are adopted Total cost of all manufactured products (including components) included in a facility which are mined, produced, or manufactured in the United States must meet the adjusted percentage requirement Adjusted percentage shall be 40 percent, except for offshore wind which shall be 20 percent 	<ul style="list-style-type: none"> For manufactured products, ability to meet 40% wind (or 20% for offshore wind) appears to apply on an aggregate basis, such that one or more components whose costs are 100% attributable to US production can offset the cost of other components manufactured outside the US Buy America requirements do not include the cost of subcomponents for purposes of assessing manufactured products, although guidance will need to confirm same rule applies here Strict documentation and certification requirements should be imposed on manufacturers to support and evidence costs attributable to domestic production
Special Rules for Energy Communities	13101 / 45(b)(11)	<ul style="list-style-type: none"> Facilities PIS after December 31, 2022 	<ul style="list-style-type: none"> Increases PTC rate by 10% Applies to facilities located in an energy community – 	<ul style="list-style-type: none"> Guidance should provide a list of qualifying area and any project that begins construction prior to

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– 10% Increase in PTC Rate			<p>(i) a brownfield site (defined in subparagraphs (A), (B), and (D)(ii)(III) of 42 US 9601(39)),</p> <p>(ii) a statistical area which (I) has or had at any time beginning after December 31, 2009 0.17% or greater direct employment or 25% or greater local tax revenue related to extraction, processing, transport, or storage of coal, oil, or natural gas, and (II) has an unemployment rate at or above the national average unemployment rate for the previous year, or</p> <p>(iii) a census tract (or directly adjoining census tract) in which (I) after December 31, 1999 a coal mine has closed, or (II) after December 31, 2009, a coal-fired electric generating unit has been retired</p>	<p>removal from that list should qualify for the energy community adder for the duration of the credit</p> <ul style="list-style-type: none"> • PTC rate is increased for the relevant taxable year, such that a project should qualify for increased rate if its location become an energy community, even though not an energy community at the time PIS • This possibility for a springing increase in PTC rate should be considered in drafting transaction documents (e.g., sizing paygo caps or post-flip paygo pricing)
Wind/Solar ITC	13102 / 48(a)	<ul style="list-style-type: none"> • Generally, property PIS after December 31, 2021 • Current ITC phase-out applies only to property PIS prior to January 1, 2022, regardless of SoC • Applies to SoC before January 1, 2025 (but see Post-2024 ITC for extension) 	<ul style="list-style-type: none"> • Applies ITC base rate of 6% subject to 5x increase if meet prevailing wage and apprenticeship requirements, to the extent required • Restores 30% ITC for wind or solar facilities PIS after December 31, 2021 • For facilities that SoC after date of enactment, same 15% cap on reduced credit due to tax-exempt bond financing applies as applies for PTC qualified facilities 	<ul style="list-style-type: none"> • Projects PIS in 2022 at a lower ITC rate may be eligible for increased tax credits • Transaction documents may require additional capital contributions or pricing adjustments
Prevailing Wage/Apprenticeship – 5x ITC Multiplier	13102 / 48(a)(9)	<ul style="list-style-type: none"> • Generally, property PIS after December 31, 2021 • Project with less than 1MWac net output does not need to comply • Project the construction of which begins prior to the date that is 60 days after published guidance does not need to comply 	<ul style="list-style-type: none"> • Except as set forth below, same prevailing wage and apprenticeship requirements (including cure provisions) as described for PTC qualified facilities apply to energy projects • An “energy project” consists of one or more energy properties that are part of a single project • Prevailing wage requirements are to be satisfied for alteration or repair work during 5 year recapture period • Failure to satisfy prevailing wage requirements for alteration or repair results in ITC recapture 	<ul style="list-style-type: none"> • In contrast to PTC qualified facilities, individual turbines or circuits will be aggregated for purposes of determining if 1MWac threshold is met • Guidance should clarify that “single project” determination is same as under existing SoC notices

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Domestic Content Bonus – ITC Rate Increase	13102 / 48(a)(12)	<ul style="list-style-type: none"> Property PIS after December 31, 2022 	<ul style="list-style-type: none"> Except as set forth below, same domestic content requirements as described for PTC qualified facilities apply to energy projects If energy project satisfies prevailing wage and apprenticeship requirements, ITC is increased by 10 percentage points If energy project does not satisfy prevailing wage and apprenticeship requirements, ITC is increased by 2 percentage points 	<ul style="list-style-type: none"> Application to energy projects means cost of domestic manufactured products should be determined based on cost of entire project, not individual wind turbine or circuit It is unclear why ITC adder should apply an energy project threshold but PTC adder should be satisfied on an energy property basis, but may be an issue of the cost of the adder
Special Rules for Energy Communities – ITC Rate Increase	13102 / 48(a)(14)	<ul style="list-style-type: none"> Property PIS after December 31, 2022 	<ul style="list-style-type: none"> Except as set forth below, same energy community requirements as described for PTC qualified facilities apply to energy projects If energy project satisfies prevailing wage and apprenticeship requirements, ITC is increased by 10 percentage points If energy project does not satisfy prevailing wage and apprenticeship requirements, ITC is increased by 2 percentage points 	<ul style="list-style-type: none"> In contrast to PTC adder, qualification as an energy community after PIS year does not allow ITC adder to be claimed in a later year Guidance should confirm that failure to qualify as energy community in subsequent year because unemployment rate decreases does not trigger recapture
Stand Alone Storage	13102 / 48(c)(6)	<ul style="list-style-type: none"> Property PIS after December 31, 2022 Does not include any property SoC after December 31, 2024 (but see Post-2024 ITC for extension) 	<ul style="list-style-type: none"> Applies ITC base rate of 6% subject to 5x increase if meet prevailing wage and apprenticeship requirements, to the extent required “Energy storage technology” means (i) property (other than used for transportation) which receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen, which stores energy) and has a nameplate capacity of no less than 5kwh, and (ii) thermal energy storage property If property was PIS before date of enactment and would be described in (i) but did not meet 5kwh requirement but is modified to satisfy 5kwh requirement, or is described in (i) (regardless of when PIS) and has an increase in nameplate capacity of no less than 5kwh, 	<ul style="list-style-type: none"> So long as PIS after December 31, 2022, SoC prior to that date or costs incurred prior to that date remains ITC eligible Requirement that modification increase nameplate capacity by minimum 5kwh means battery augmentations to maintain nameplate capacity does not give rise to incremental ITC The ability to elect out of normalization for battery storage combined with PTC for solar should make solar + storage owned by a public utility

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			<p>incremental cost of modification shall be taken into account for purposes of ITC</p> <ul style="list-style-type: none"> • “Thermal energy storage property” means property comprising a system which (i) is directly connected to an HVAC system, (ii) removes heat from or adds heat to a storage medium for subsequent use, and (iii) provides energy for heating or cooling of the interior of a building • Thermal energy storage property does not include (i) a swimming pool, (ii) combined heat and power system, or (iii) a building or structural components • Modifies service contract rules under 7701(e)(3) to include operation of a storage facility in special rules that apply to alternative energy facilities (pg. 281) • Permits public utilities to elect out of normalization requirement for energy storage technology, provided that such election out is not prohibited by any State or regulatory authority, and such energy storage technology has a max capacity in excess of 500kwh (pg. 271) 	<p>attractive without the need for tax equity financing, at least for high capacity projects where PTC is competitive with ITC</p> <ul style="list-style-type: none"> • Comments by Neal in Federal Register confirm that ITC can be claimed on storage where operating with solar that claims PTC • Where storage is co-located with another facility, incentive for shared facilities to be owned by separate storage company to avoid dual-use limitations (or, pending guidance, to qualify other nonqualified property) • If storage is co-located with solar but qualifies for stand alone storage credit, no limitations on grid charging are necessary
Qualified Biogas Property	13102 / 48(c)(7)	<ul style="list-style-type: none"> • Property PIS after December 31, 2022 	<ul style="list-style-type: none"> • Extends ITC to property comprising a system which converts biomass into a gas which (i)(I) consists of not less than 52% methane by volume, or (II) is concentrated by such system into a gas which consists of not less than 52% methane, and (ii) captures such gas for sale or productive use, and not for disposal via combustion • “Biomass” is defined by reference to 45K(c)(3) as any organic material other than (i) oil and natural gas (or any product thereof), and (ii) coal (including lignite) any product thereof • Eligible property includes any property which is part of such system which cleans or conditions such gas • Excludes any property that is part of a facility the production from which is allowed as a credit under 45 for the taxable year or any prior taxable year 	<ul style="list-style-type: none"> • Since only stacking of credit with PTC for production of electricity is prohibited, should be possible to stack credit with CCSU credit under 45Q or Clean Fuel Production Credit under 45Z • Guidance should describe relevant ‘system’ similar to existing guidance for biomass facilities where on-site handling and preparation equipment • Guidance should permit separate ownership of biogas system and facility for collection of biomass, which is consistent with cash grant guidance

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Interconnection Property	13102 / 48(a)(8)	<ul style="list-style-type: none"> Property PIS after December 31, 2022 	<ul style="list-style-type: none"> Extends ITC eligible costs to include costs of interconnection property incurred in connection with the installation of energy property which has a maximum net output of not greater than 5MWac “Qualified interconnection property” means (i) any addition, modification, or upgrade to a transmission or distribution system which is required beyond the POI, (ii) either (A) is constructed, reconstructed, or erected by the TP, or (B) for which the cost is paid or incurred by the TP, and (iii) the original use of which commences with a utility pursuant to an interconnection agreement Amortizable interconnect costs shall be reduced by ½ of the ITC amount for such costs 	<ul style="list-style-type: none"> Enhances ITC for many distributed generation projects by including interconnection upgrade costs
Solar and Wind Low Income Community Adder – ITC Rate Increase	13103 / 48(e)	<ul style="list-style-type: none"> Amendments made take effect on January 1, 2023 	<ul style="list-style-type: none"> For each of 2023 and 2024, authorizes Sec’y to allocate up to 1.8GWdc of capacity to qualifying solar and wind energy facilities to qualify for an ITC rate increase TP receiving an allocation shall be entitled to an increase in ITC of either 10 percentage points or 20 percentage points times the ratio of the capacity limitation allocated to such facility bears to the total MWdc capacity of such facility Eligible facilities are limited to solar and wind facilities with a maximum net output of less than 5MWac and energy storage technologies installed in connection therewith If such facility is located in a low-income community or on Indian land, it qualifies for a 10 percentage point ITC rate increase If such facility is part of a qualified low-income residential building project or a qualified low-income economic benefit project, it qualifies for a 20 percentage point ITC rate A facility is a qualified low-income residential building project if installed on a residential building that participates in certain affordable housing programs and the financial benefits of the electricity produced by such 	<ul style="list-style-type: none"> It is unclear whether a facility for purposes of the capacity limitation is an individual energy property or an entire energy project The Sec’y is authorized to review multiple projects in a single application if such projects will be PIS by a single TP, indicating that each energy property may be a separate facility for this purpose Could permit utility scale facilities that are located in low-income community or on Indian land or that sell at a discount on a subscription basis to qualify for an ITC rate increase Low income communities for this purpose are defined by reference to the New Markets Tax Credit and can be located through the CDFI Fund NMTC Public Viewer - InVision (cdfifund.gov)

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			<p>facility are allocated equitably among the occupants of the dwelling units of such building</p> <ul style="list-style-type: none"> • A facility is a qualified low-income economic benefit project if at least 50% of the financial benefits of the electricity produced by such facility are provided to households with income less than 200% of the poverty line or less than 80% of the area median gross income • For these purposes, electricity acquired at below market rates shall not fail to be taken into account as a financial benefit • A facility receiving an allocation must be PIS within 4 years after the date of the allocation or such allocation will expire • Recapture will apply if a facility fails to satisfy the requirements for such an allocation during the 5 year recapture period, provided that such failure may be cured within 12 months after the taxpayer becomes aware (or reasonably should become aware) of such failure • The 12 month cure period shall not apply more than once with respect to any facility 	
Carbon Capture	13104 / 45Q	<ul style="list-style-type: none"> • Generally, facilities or equipment PIS after December 31, 2022 • Changes to definition of qualified facility apply to facilities or equipment SoC after the date of enactment • Applies to SoC before January 1, 2033 	<ul style="list-style-type: none"> • Increases credit rate to \$85 (\$17 if prevailing wage and apprenticeship is not satisfied) per metric ton of qualified carbon oxide which is captured and disposed of in secure geological storage during the 12-year period after PIS • Increases credit rate to \$60 (\$12 if prevailing wage and apprenticeship is not satisfied) per metric ton of qualified carbon oxide which is used as a tertiary injectant or is utilized during the 12-year period after PIS • Increases credit rate to \$180 (\$36 if prevailing wage and apprenticeship is not satisfied) per metric ton of qualified carbon oxide which is captured at a direct air capture facility and disposed of in secure geological storage • Increases credit rate to \$130 (\$26 if prevailing wage and apprenticeship is not satisfied) per metric ton of 	<ul style="list-style-type: none"> • Taxpayers are entitled to direct pay for carbon capture credits without requirement to be tax exempt • Direct pay election is only available for year carbon capture equipment is PIS and the 4 subsequent taxable years which end before January 1, 2033

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			<p>qualified carbon oxide which is captured at a direct air capture facility and utilized as a tertiary injectant or is utilized</p> <ul style="list-style-type: none"> • Credit rates are adjustment for inflation beginning in 2027 • Changes minimum capture requires to (i) not less than 1,000 metric tons per year for direct air capture, (ii) in the case of an electricity generating facility, (a) not less than 18,750 metric tons per year, and (b) with respect to the applicable electric generating unit at such facility, has a capture design capacity of not less than 75% of the baseline carbon oxide production of such unit, or (iii) in the case of any other facility, not less than 12,500 metric tons during the year • Prevailing wage and apprenticeship requirements similar to those for PTC and ITC apply to obtain full value of credit, but only if construction of the carbon capture equipment does not begin before the date that is 60 days after the issuance of guidance and such equipment is installed at a qualified facility the construction of which begins prior to such date • Tax exempt bond financing will reduce credit rate by no more than 15%, similar to PTC and ITC reductions 	
Clean Hydrogen	13204 / 45V	<ul style="list-style-type: none"> • Hydrogen produced after December 31, 2022 • Modifications to existing facilities applies to modifications made after December 31, 2022 • If claim ITC in lieu of PTC, applies only to property PIS after December 31, 2022 and SoC prior to January 1, 2033, but only to the extent of basis attributable to construction, 	<ul style="list-style-type: none"> • Allows a production tax credit equal to the applicable percent of \$3 (\$0.60 if prevailing wage and apprenticeship aren't satisfied) per kg of qualified clean hydrogen produced at a qualified clean hydrogen production facility during the 10 year period after original PIS • Applicable percentage is determined by reference to lifecycle greenhouse gas emission rate – <ul style="list-style-type: none"> (i) if not greater than 4kg of CO2e per kg of hydrogen, and not less than 2.5kg of CO2e per kg of hydrogen, applicable percentage is 20%, 	<ul style="list-style-type: none"> • Ability to combine credits for property that uses electricity to produce qualified clean hydrogen could create significant incentive to use qualified facilities or energy property to produce hydrogen • Direct pay election is only available for year carbon capture equipment is PIS and the 4 subsequent taxable years which end before January 1, 2033

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		reconstruction, or erection after December 31, 2022	<p>(ii) if less than 2.5kg of CO₂e per kg of hydrogen and not less than 1.5kg of CO₂e per kg of hydrogen, applicable percentage is 25%,</p> <p>(iii) if less than 1.5kg of CO₂e per kg of hydrogen and not less than 0.45kg of CO₂e per kg of hydrogen, applicable percentage is 33.4%, and</p> <p>(iv) is less than 0.45kg of CO₂e per kg of hydrogen, applicable percentage is 100%</p> <ul style="list-style-type: none"> • Credit rate shall be adjusted for inflation after 2022 • Lifecycle greenhouse gas emissions shall only include emissions through the point of production (well-to-gate) as determined under the GREET model • Qualified clean hydrogen must – <ul style="list-style-type: none"> (i) be produced through a process that results in a lifecycle greenhouse gas emissions rate not greater than 4kg of CO₂e per kg of hydrogen, (ii) be produced in the United States, (iii) be produced in the ordinary course of the TP's trade or business, (iv) be produced for sale or use, and (v) have the production and sale or use of such hydrogen verified by an unrelated party • Qualified clean hydrogen production facility must – <ul style="list-style-type: none"> (i) be owned by the taxpayer, (ii) produce qualified clean hydrogen, and (iii) SoC before January 1, 2033 • Qualified clean hydrogen facility shall not include a facility that includes carbon capture equipment for which the 45Q credit is allowed to any taxpayer for the taxable year or any prior taxable year 	

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			<ul style="list-style-type: none"> • Prevailing wage and apprenticeship requirements similar to PTC and ITC apply if SoC is 60 days or more after issuance of guidance • Maximum 15% reduction in credit rate for tax exempt bond financing as with PTC and ITC • If a facility was originally PIS before January 1, 2023 but did not produce qualified clean hydrogen and is modified to produce qualified clean hydrogen, such facility shall be deemed to have been originally PIS as of the date the modifications are PIS • Electricity produced at a qualified facility eligible for PTC shall be treated as sold if used by the taxpayer or a related person at a qualified clean hydrogen facility to produce qualified clean hydrogen and such use and production is verified by an unrelated third party • Election is available to claim ITC rather than PTC for qualified clean hydrogen production facility, pro rata in accordance with applicable percentage of 30% (provided that prevailing wage and apprenticeship requirements are satisfied) 	
Post-2024 – Resource Neutral Production Tax Credits	13701 / 45Y	<ul style="list-style-type: none"> • Facilities PIS after December 31, 2024 	<ul style="list-style-type: none"> • Expands the PTC to electricity produced by a qualified facility and either sold to an unrelated person during the taxable year or, in the case of a qualified facility that is equipped with a metering device which is owned and operated by an unrelated person, sold, consumed, or stored by a TP • A qualified facility includes any facility used for the generation of electricity that is PIS after December 31, 2024 and for which the greenhouse gas emissions rate is not greater than zero • The greenhouse gas emissions rate means the amount of greenhouse gases emitted expressed as grams of CO₂e per KWh • If electricity is produced through combustion or gasification, the greenhouse gas emission rate shall be 	<ul style="list-style-type: none"> • By specifying 1.5¢/kwh rate and then adjusting for inflation, results in lower PTC rate than pre-2025 PTC rate (which applies inflation adjustment to 0.3¢/kwh rate and multiplies by inflation, rounded to nearest 0.05¢, before adjusting for inflation) • Difficult to determine which rounding mechanic produces higher rate, but there may be some incentive to ‘start construction’ before 2025 to retain rounding convention • Coordination rule provides that Post-2024 PTC isn’t available for

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			<p>the net rate of greenhouse gas emitted taking into account lifecycle greenhouse gas emissions</p> <ul style="list-style-type: none"> • The Sec’y shall annually publish the greenhouse gas emissions rate for types or categories of facilities and TPs that own facilities for which a rate is not published may file a petition for the determination of such rate • Greenhouse gases emitted by a facility shall not include any qualified carbon dioxide that is captured and disposed of or utilized • The credit rate is 0.3¢/kwh or 1.5¢/kwh if prevailing wage and apprenticeship requirements are satisfied, if applicable (both as adjusted for inflation) • Credit phase-out shall begin with the later of (i) the calendar year in which the Sec’y determines that the annual greenhouse gas emissions from electricity production in the US have declined by 75% from 2022, or (ii) 2032 • Facilities that SoC in the first calendar year after the phase-out trigger (2033 at the earliest) will be subject to a 0% reduction in credit rate • Facilities that SoC in the second calendar year after the phase-out trigger (2034 at the earliest) will be subject to a 25% reduction in credit rate • Facilities that SoC in the third calendar year after the phase-out trigger (2035 at the earliest) will be subject to a 50% reduction in the credit rate • Thereafter, the credit shall be reduced to zero • Credit adders for energy communities and domestic content shall apply 	<p>a facility with a credit allowed under section 45</p>
Post-2024 – Resource Neutral Investment Tax Credit	13702 / 48E	<ul style="list-style-type: none"> • Facilities PIS after December 31, 2024 	<ul style="list-style-type: none"> • Expands ITC to qualified facilities that generate electricity and energy storage technologies to the same extent, and subject to the same phase-out, as the PTC expansion summarized above • In addition to recapture attributable to disposition, recapture applies if Sec’y determines that the greenhouse 	

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			<p>gas emissions rate is greater than 10 grams of CO₂e per KWh</p> <ul style="list-style-type: none"> • Credit adders for energy communities, domestic content, and low-income communities apply • Annual capacity limitation for low-income community adders remains at 1.8GW until greenhouse gas reduction achieves 75% threshold, and shall be zero thereafter 	
5 Year MACRS Depreciation	13703 / 168(e)(3)(B)(vii)	<ul style="list-style-type: none"> • Facilities PIS after December 31, 2024 	<ul style="list-style-type: none"> • Expands 5 year MACRS depreciation to all technology neutral and energy storage facilities eligible for the resource neutral credits 	<ul style="list-style-type: none"> • Under current law, standalone storage facilities would be depreciated over 7 years, so stand alone storage will receive an incremental benefit after 2024
Clean Fuel Production Credit	13704 / 45Z	<ul style="list-style-type: none"> • Transportation fuels produced after December 31, 2024 • Does not apply to any transportation fuels sold after December 31, 2027 	<ul style="list-style-type: none"> • Allows a credit equal to the product of (i) \$1.00 (\$0.20 if prevailing wage and apprenticeship requirements are not satisfied) per gallon of transportation fuel produced and sold, times (ii) the emissions factor for such transportation fuel, adjusted for inflation beginning in 2025 measured from 2022 • For sustainable aviation fuels, the \$1.00 credit rate is increased to \$1.75 (\$0.35 if prevailing wage and apprenticeship requirements are not satisfied) per gallon, adjusted for inflation beginning in 2025 measured from 2022 • ‘Sustainable aviation fuel’ is liquid fuel, the portion of which is not kerosene, which is sold for use in an aircraft, meets certain ASTM standards, and is not derived from palm fatty acid distillates or petroleum • Transportation fuel must be sold to an unrelated person (i) for use by such person in the production of a fuel mixture, (ii) for use by such person in a trade or business, or (iii) who sells such fuel at retail to another person and places such fuel in the fuel tank of such other person • The ‘emissions factor’ is calculated as the quotient of (i)(I) 50kg of CO₂e per mmBTU, minus (II) the 	<ul style="list-style-type: none"> • Clean production fuel credit is allowed if clean hydrogen or carbon capture credits are not allowed for the relevant taxable year, whereas other credits prohibit claiming alternative credits for any taxable year • Therefore, during the period when clean fuel production credits are available, taxpayers should be able to claim the more valuable credit, but cannot claim both credits at the same time • For purposes of determining emissions factors, guidance should provide that lifecycle greenhouse gas emissions should only include emissions through the point of production (well-to-gate) consistent with clean hydrogen

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			<p>emissions rate for such fuel, divided by (ii) 50kg of CO₂e per mmBTU</p> <ul style="list-style-type: none"> • The Secretary shall annually publish a table that sets for the emissions rate for similar types and categories of transportation fuels based on the amount of lifecycle gas emissions for such fuels, which shall be used to compute the emissions factor • Lifecycle greenhouse gas emissions for a transportation fuel that is not a sustainable fuel shall be based on the GREET Model • Lifecycle greenhouse gas emissions for sustainable aviation fuels shall be determined in accordance with carbon reduction scheme adopted by the International Civil Aviation Organization, or pursuant to the Clean Air Act • If an emissions rate has not been established, a taxpayer producing such transportation fuel may file a petition with the Secretary for determination of the emissions rate • A ‘qualified facility’ for the production of transportation fuel does not include any facility for which (i) the PTC for production of clean hydrogen under 45V, (ii) the ITC is elected for a specified clean hydrogen production facility under 48(a)(15), and (iii) the carbon capture credit under 45Q, is allowed for the taxable year • ‘Transportation fuel’ means a fuel (i) which is suitable for use as a fuel in a highway vehicle or aircraft, (ii) has an emissions rate which is not greater than 50kg of CO₂e per mmBTU, and (iii) is not derived from coprocessing an applicable material with a feedstock that is not biomass • ‘Applicable material’ means (i) monoglycerides, diglycerides, and triglycerides, (ii) free fatty acids, and (iii) fatty acid esters • Prevailing wage and apprenticeship requirements apply to obtain full credit, except in the case of any qualified facility PIS before January 1, 2025, (i) prevailing wage 	

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			requirements do not apply to the manufacture of such facility, and (ii) prevailing wage requirements shall only apply to repairs and alterations after December 31, 2024 and during the credit period	
Direct Pay	13801 / 6417	<ul style="list-style-type: none"> • Taxable years beginning after December 31, 2022 	<ul style="list-style-type: none"> • An applicable entity that so elects with respect to an applicable credit shall be treated as making a payment against tax equal to the amount of such credit • To the extent that the payment exceeds the applicable entity's tax liability, the excess payment would be refunded • An applicable entity is, generally, limited to a governmental organization, a tax exempt organization, the TVA, an Indian tribal government, an Alaska Native Corporation, or a rural electric cooperative • All other entities are also applicable entities for purposes of the carbon capture credit, the clean hydrogen credit, and the advance manufacturing credit • An applicable credit includes the PTC, but only for qualified facilities that are originally PIS after December 31, 2022, and the ITC, without regard to PIS date • In the case of a facility owned by a partnership or S corporation, the direct pay election shall be made by and paid to such partnership or S corporation • Any amount so paid shall be treated as tax exempt income of the partnership or S corporation • No election shall be allowed by any partner or shareholder with respect to a facility owned by a partnership or S corporation • Any applicable credit shall be determined without regard to the prohibitions against governmental or tax exempt ownership of credit eligible facilities • The election for direct payment shall be made no later than the date determined by the Sec'y, if the applicable entity is not required to file a return, or in any other case 	<ul style="list-style-type: none"> • Ability to utilize direct pay will require significant additional implementing guidance from IRS • Tax exempt entities may not be able to provide effective tax equity financing since disproportionate allocations from a partnership are not excepted to be permitted • Ability of a partnership with tax exempt ownership and pro rata allocations to make a direct pay election is unclear

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			<p>on the return of tax for the taxable year for which the election is made</p> <ul style="list-style-type: none"> • With respect to a PTC, the election shall apply separately for each qualified facility, be made for the taxable year in which the facility is PIS, and shall apply to all credit eligible years for such facility • In the case of a governmental entity for which no return is required to be filed, the payment against tax for which a refund is claimed shall be treated as made at the later of the time such a return would have been required to be filed for a tax exempt organization without regard to extensions (4 ½ months after the close of the taxable year) or the date on which such entity submits its claim for credit or refund • In all other cases, such payment shall be treated as made at the later of the due date for the return of tax (without regard to extensions) or when the return is filed • The Sec’y is authorized to require additional information or registration to be provided prior to and as a condition of an applicable credit being treated as payment • A 20% penalty applies to the amount by which a credit treated as payment exceeds the amount that would have been allowable as a credit if a direct pay election was not available • The excessive payment penalty does not apply if attributable to reasonable cause • Basis reduction and recapture rules shall apply in the same manner as they do to applicable credits • Failure to satisfy domestic content requirements shall result in a reduction of the direct pay credit for a qualified facility with a maximum net output of 1MW or more • Such domestic content reduction shall be 0% for facilities that SoC prior to January 1, 2024, 10% for facilities that SoC in calendar year 2024, 15% for 	

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			<p>facilities that SoC in calendar year 2025 and 100% thereafter</p> <ul style="list-style-type: none"> Domestic content reduction shall not be required if the Sec'y provides an exception due to increase in the overall cost by more than 25% or the relevant products are not available in reasonable quantity or quality in the US 	
Transferability	13801 / 6418	<ul style="list-style-type: none"> Taxable years beginning after December 31, 2022 	<ul style="list-style-type: none"> An eligible taxpayer may elect to transfer all or any portion of an eligible credit for a taxable year to a transferee taxpayer that is not related to the eligible taxpayer Any payment received from the transferee taxpayer (i) shall be required to be paid in cash, (ii) shall not be includible in gross income of the eligible taxpayer, and (iii) shall not be deductible by the transferee taxpayer In the case of a partnership or S corporation, the election shall be made at the partnership or S corporation level and the payment received shall be treated as tax exempt income No election may be made by a partner or shareholder with respect to a facility held by a partnership or S corporation The transferee taxpayer shall take into account the credit in the first taxable year ending with or after the taxable year of the eligible taxpayer The election shall be made no later than the due date (with extensions) of the tax return for the taxable year for which the credit is determined, which election shall be irrevocable Once transferred, no further transfer is permitted Eligible credits include PTCs and ITC, without regard to when SoC or PIS occurred for the eligible facility For PTC facilities, the election is made separately for each eligible facility and for each taxable year during which the credit is available 	<ul style="list-style-type: none"> Transferability should be an efficient method of monetizing tax credits since it permits full PAYGO, minimizing production, performance, or pricing risks Effective date could provide a restructuring relief valve for projects experiencing working capital issues due to basis by converting to full PAYGO However, transferability leaves depreciation with the eligible taxpayer who may not be able to utilize losses efficiently It is unclear whether new language providing that the transferee taxpayer shall inform the eligible taxpayer of the amount of recapture means that the eligible taxpayer (and not the transferee taxpayer) takes recapture risk The 20% penalty for excessive credits indicates that the transferee still is exposed to the risk of overstated tax basis in ITC eligible property such that basis indemnities will continue An interim transaction may be necessary to obtain a step-up to

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			<ul style="list-style-type: none"> • An eligible credit does not include any credit carryforward or credit carryback • An eligible taxpayer does not include any tax-exempt or governmental entity entitled to make the direct pay election • The Sec'y may require information or registration as a condition and prior to any transfer of an eligible credit • A 20% penalty applies to any excess of credit claimed by a transferee over the amount that would have been allowable without a transfer, which penalty shall not apply if reasonable cause is demonstrated • The eligible taxpayer shall take into account the reduction in depreciable basis for ½ of the ITC and, if there is a subsequent disposition or cessation, the eligible taxpayer shall inform the transferee taxpayer and the transferee taxpayer shall inform the eligible taxpayer as to the amount of recapture 	<p>FMV to the extent that the value of a completed facility exceeds its cost to construct</p> <ul style="list-style-type: none"> • It is unclear how transferability interacts with the passive activity limitation on the ability of individuals to utilize transferred credits, although it should simplify the ability to transfer credits to employees of developers • It should be possible to structure transferability with a minority tax equity owner who receives 50% or less of tax items and receives PTCs on a pure PAYGO basis but still absorbs net losses • Statutory language defines eligible taxpayer by excluding tax exempts that qualify for direct pay, meaning that a partnership with tax exempt owners should be an eligible taxpayer • If aggregate principles are applied instead, transferability would be available to extent of taxable ownership and direct pay would be available to extent of tax exempt ownership
3 Year Credit Carryback	13801 / 39(a)(4)	<ul style="list-style-type: none"> • Taxable years beginning after December 31, 2022 	<ul style="list-style-type: none"> • Permits the carryback of applicable credits (as defined in the direct pay provision) to each of the three taxable years preceding the year in which the credit arises 	<ul style="list-style-type: none"> • Provides some relief against tax capacity constraints by extending carryback period to three years from one year