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Advancing energy security:

Sustainability-related tax provisions in
the Inflation Reduction Act

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Content

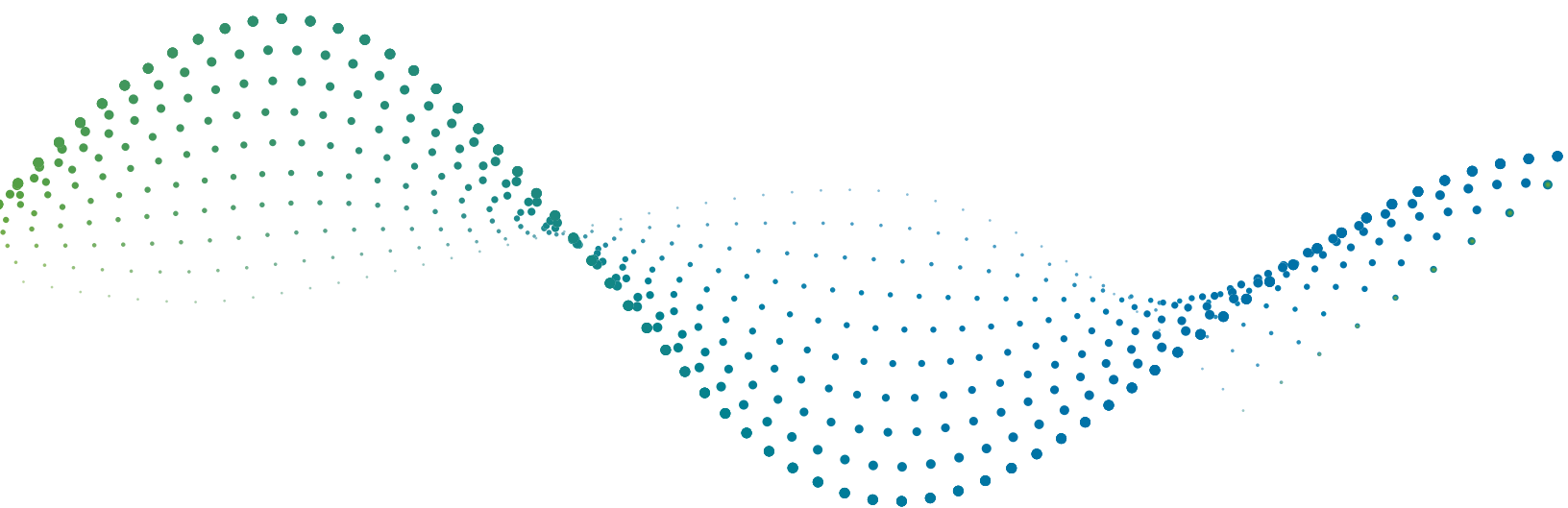
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Overview

On August 16, 2022, President Biden signed into law the Inflation Reduction Act (H.R. 5376) (the “Act”), which includes incentives to promote climate change mitigation and clean energy.

The Act includes numerous and sweeping measures under Subtitle D – Energy Security to combat climate change by stimulating the development of clean energy, and also contains significant proposals related to the utilization of federal tax credits and incentives, as well as a new 15% corporate alternative minimum tax (“AMT”). Many of the clean energy credits and incentives provisions were modified from prior drafts of the Build Back Better Act (“BBBA”) under Subtitle F – Green Energy. According to the Congressional Research Service, the energy-related provisions in Subtitle D of the Act are estimated at \$258 billion over a 10-year period.

This report details the notable sustainability-related credits and incentives provisions under the Act and provides important and potentially time-sensitive considerations.



Summary

While the Act retains many aspects of the updated BBBA introduced in the Senate Finance Committee on December 11, 2021, and passed by the House on November 19, 2021, the Act also includes significant changes to credit eligibility requirements and new options for credit utilization that will meaningfully impact the project finance and development landscape of the energy transition.

Some of the highlights of the Act's clean energy proposals, analyzed below in more detail, can be summarized in the following categories:

Renewable energy credits

- Extends the current law production tax credit ("PTC") and investment tax credit ("ITC") for renewable technologies (including wind and solar) through at least 2028 (2034 for offshore wind) if construction is begun before 2025, and transitions to a new technology-neutral PTC and ITC for property and facilities placed in service after 2024 and the construction of which begins after 2024.
- Restores the full value of the PTC and ITC for energy property and facilities placed in service after 2021.
- Increases the full PTC amount retroactively for wind, solar, geothermal, and closed-loop biomass facilities placed in service during 2022 from 2.6 cents per kilowatt hour ("kWh") to 2.75 cents/kWh.
- Decreases the half PTC amount retroactively for open-loop biomass, landfill gas, trash, hydropower, and marine and hydrokinetic facilities placed in service during 2022 from 1.3 cents/kWh to 1.25 cents/kWh.
- Increases the PTC from half to full value for hydropower and marine and hydrokinetic renewable energy facilities placed in service after 2022.
- Creates new PTCs for solar, zero emission nuclear, and clean hydrogen; and creates new ITCs for energy storage, biogas property, microgrid controllers, dynamic glass, linear generator assemblies, and certain qualified interconnection property.
- Modifies the calculation of the ITC, PTC, and most energy credits by introducing the concept of a "base credit" equal to one-fifth of the prior full credit amount (before the base credit is adjusted for inflation), incentivizing taxpayers to meet certain wage and apprenticeship requirements to be eligible for the "bonus credit" ("5x multiplier") for property or facilities placed in service after 2021.
- Provides additional 2% or 10% "adders" to the base or bonus ITC credit amounts, respectively; and provides an additional 10% adder to the base or bonus PTC credit amounts, respectively, for energy projects or facilities that satisfy domestic content requirements and/or are located in certain energy communities if placed in service after 2022.
- Certain small solar and wind facilities placed in service within specified low-income communities may be eligible to receive an environmental justice solar and wind capacity allocation entitling the energy project or facility to claim an additional 10% to 20% adder if awarded and placed in service after 2022.
- The various base and bonus credit adders may be "stacked" allowing a maximum ITC value of 70% for certain small solar and wind facilities placed in service after 2022 qualifying for all adders.

- Creates a technology-neutral PTC and ITC under sections 45Y and 48E, respectively, at full credit amounts (with satisfaction of wage and apprenticeship requirements) for property or facilities placed in service after 2024, but only if the PTC or ITC is not otherwise allowable under sections 45 and 48, respectively.
- The technology-neutral PTC and ITC begins to phase out the later of the second calendar year following the “applicable year” defined as: (1) 2032 or (2) once certain annual greenhouse gas (“GHG”) emissions reductions are achieved by the US. This means that the earliest that the phase-out may apply is for property or facilities that begin construction after 2033.

Carbon capture, hydrogen, and nuclear credits

- Extends the [section 45Q](#) carbon oxide sequestration credit for qualified facilities or carbon capture equipment (“CCE”) that begin construction before January 1, 2033.
- Modifies the credit amounts under section 45Q per metric ton (“MT”) to introduce a base credit and bonus 5x multiplier credit (provided that certain prevailing wage and apprenticeship requirements are met) for facilities or CCE placed in service after 2022 based on facility type and “end use” (e.g., disposal, injection, or utilization). It also reduces the minimum capture thresholds for qualified facilities (e.g., to 12,500 MT of carbon oxides captured annually for most facilities).
 - **For industrial facilities, including electricity generating:** The base and bonus credit amounts through 2026 are \$12 or \$60 for injection or utilization of carbon oxides, and \$17 or \$85 for disposal of carbon oxides, respectively.
 - **For direct air capture facilities:** The base and bonus credit amounts are \$26 or \$130 for injection and utilization of carbon oxides, and \$36 or \$180 for disposal of carbon oxides, respectively.
 - **Inflation adjustment after tax years 2026:** Credit amounts for tax years after 2026 will be subject to an annual inflation adjustment factor based on the Gross National Product Implicit Price Deflator.
- Creates a clean hydrogen PTC (and ITC in lieu of PTC) under section 45V of up to \$3 per kilogram (“kg”) for qualified facilities producing hydrogen with a GHG emissions rate of 4 kg or less of CO₂-e per kg produced after 2022 where construction begins before January 1, 2033.
- Creates a nuclear power PTC under section 45U for electricity produced and sold after 2023 at qualified facilities placed in service before enactment.

Transportation and fuels credits

- Extends, expands and modifies credits for “clean vehicles” under [section 30D](#) for vehicles sold after 2022 and placed in service through 2032, including the removal of the 200,000 vehicle phase-out per manufacturer, the addition of critical minerals and battery components requirements, the modified adjusted gross income (“MAGI”) and manufacturer’s suggested retail price (“MSRP”) thresholds, and an additional provision allowing the credit to be transferred to the dealer that sold the vehicle.
- Creates a previously owned clean vehicles credit under section 25E for the purchase of certain vehicles acquired after 2022 and through 2032, limited to taxpayers that meet certain MAGI thresholds.

- Creates a qualified commercial clean vehicles credit under section 45W for the purchase of certain vehicles acquired for use or lease by a taxpayer after 2022 and through 2032.
- Extends, expands, and modifies the credit for alternative fuel refueling property under [section 30C](#) (e.g., electric vehicle charging infrastructure) for property placed in service through 2032, and increases the credit limitation to \$100,000 per taxable year with respect to any single item of alternative fuel refueling property (removing the location restriction) but only with respect to such property that is placed in service after 2022 within certain low-income communities and non-urban census tracts.
- Creates a sustainable aviation fuel (“SAF”) credit under section 40B for the sale or use of a qualified mixture of SAF and kerosene in the US after 2022 and through 2024.
- Extends credits for biodiesel, renewable diesel, and alternative fuels by two or three years for fuel sold or used after 2021 through 2024.
- Terminates the excise tax credit under [section 6426\(d\)](#) for liquified hydrogen sold or used after 2022.
- Adds “sustainable aviation fuel credit” under section 6426(k) for an excise tax credit (similar to the newly added general business credit under section 40B).
- Extends credits for second-generation biofuels by three years for fuel sold or used after 2021 and through 2025.
- Creates a clean fuel production credit under section 45Z for certain transportation fuels (including aviation and non-aviation fuels) produced at a qualified facility and sold after 2024 and through 2027.

Residential and energy efficiency credits or deductions

- Modifies, extends, and expands credits under sections 25C, 25D, 45L, and the deduction under section 179D.

Manufacturing credits

- Re-institutes the application-based credit under [section 48C](#) for advanced energy projects at industrial or manufacturing facilities for the production or recycling of certain energy property with \$10 billion in new funding, \$4 billion of which is reserved for projects located in energy communities, effective in 2023.
- Creates an advanced manufacturing production credit under section 45X for the production and sale of certain clean energy components or minerals after 2022.

Utilization of credits

- Creates a direct pay election (*i.e.*, refundability) under a new section 6417 available to applicable entities for certain property or facilities placed in service after 2022. An applicable entity generally only includes certain tax-exempt and state governmental entities. However, this limitation does not apply during the first five years of the 45Q carbon oxide sequestration credit and the 45V clean hydrogen production credit, or during any consecutive five-year period elected by the taxpayer with respect to the 45X advanced manufacturing production credit.
- Creates a transferability option under a new section 6418 for taxpayers not eligible for the direct pay election to make an irrevocable election to transfer certain credits for a taxable year to an unrelated taxpayer for tax years beginning after 2022.
- Extends the carryback period for certain excess applicable credits (*i.e.*, sections 30C, 45, 45Q, 45U, 45V, 45W, 45X, 45Y, 45Z, 48, 48C, and 48D) from one year to three years and the corresponding carryforward from 20 to 22 years for tax years beginning after 2022.
- Applies a 15% corporate AMT for tax years beginning after 2022, where taxpayers may offset, subject to certain limitations, their AMT liability with certain credits.

Details and Observations

The following outlines details and important observations with respect to the notable clean energy credits and incentives provisions.

Clean energy incentives

Production tax credit

- Extends the [section 45](#) PTC begun construction deadline for wind, closed and open-loop biomass, geothermal, landfill gas, trash, hydropower, and marine and hydrokinetic facilities by three years from before January 1, 2022, to before January 1, 2025.
- Expands the PTC to solar facilities placed in service after 2021.
- Restores the PTC for wind to the full value (or 30% ITC in lieu of PTC), removing the phased-down amounts, for facilities placed in service after 2021.
- Increases the full PTC amount retroactively for wind, solar, geothermal, and closed-loop biomass facilities placed in service during 2022 from 2.6 cents/kWh to 2.75 cents/kWh.
- Decreases the full PTC amount retroactively for open-loop biomass, landfill gas, trash, hydropower, and marine and hydrokinetic facilities placed in service during 2022 from 1.3 cents/kWh to 1.25 cents/kWh.
- Increases the PTC from half to full value for hydropower and marine and hydrokinetic renewable energy facilities placed in service after 2022.
- Modifies the calculation of the credit from 1.5 cents/kWh to a base credit amount of 0.3 cents/kWh before inflation adjustment for facilities placed in service after 2021.
- Includes wage and apprenticeship requirements for the 5x multiplier to the base credit amount for facilities placed in service after 2021.
- Facilities meet the prevailing wage and apprenticeship requirements if they: (1) have a maximum net output of less than 1 megawatt ("MW") as measured in alternating current ("MWac"), (2) begin construction within 59 days after the date that the IRS and Treasury publish guidance defining the prevailing wage and labor requirements, or (3) meet the substantive prevailing wage and labor requirements including:
 - Paying prevailing wages to laborers and mechanics employed by the taxpayer or any contractor or subcontractor in the construction, alteration, or repair of the facility during the 10-year PTC period, and
 - Meeting apprenticeship requirements, including a percentage of total labor hours of the construction, alteration, or repair work (including work performed by any contractors or subcontractors) being performed by qualified apprentices as follows: 10% if construction begins before 2023; 12.5% if construction begins during 2024; and 15% if construction begins after 2024.
- Includes a 10% domestic content adder applied to the base credit or bonus credit amount if certain domestic content requirements are satisfied.
 - To qualify the taxpayer must certify that any steel, iron, or manufactured product which is a component of such facility (upon completion of construction) was produced in the US. See domestic content requirement below.

- Includes a 10% energy communities adder applied to the base credit or bonus credit amount if the qualified facility is located in an “energy community.”
 - An “energy community” means: (1) a brownfield site; (2) a metropolitan statistical area or non-metropolitan statistical area which has (or had since 2009) 0.17% or greater direct employment or 25% or greater local tax revenues related to the extraction, processing, transport or storage of coal, oil or natural gas, and has an unemployment rate at or above the national average unemployment rate for the previous year; or (3) a census tract (or adjoining tract) where a coal mine closed after 1999, or a coal-fired electric generating unit was retired after 2009.
- The amendments to the PTC are generally effective for facilities placed in service after December 31, 2021. However, the domestic content and energy communities adders, the direct pay phase-out, and the increased hydropower PTC amount are effective for facilities placed in service after December 31, 2022.
- The PTC under section 45Y begins to phase out after the applicable year has been reached. The credit determined under section 45Y(a) is then multiplied by the phase-out percentage.
 - The applicable year is the later of: (1) the calendar year in which the Secretary determines that the annual GHG emissions from the production of electricity in the US are equal to or less than 25 percent of the annual GHG emissions from the production of electricity in the US for calendar year 2022, or (2) 2032.
 - For a facility that begins construction during the first calendar year following the applicable year, the phase-out percent is 100%.
 - For a facility that begins construction during the second calendar year following the applicable year, the phase-out percent is 75%.
 - For a facility that begins construction during the third calendar year following the applicable year, the phase-out percent is 50%.
 - For a facility that begins construction during any calendar year after the third calendar year, the phase-out percent is 0%.
- Modifies the rules governing qualified facilities that use tax-exempt financing and tax credits. Under current law, the PTC credit amounts are reduced by the lesser of 50% or the ratio (expressed as a percentage) of the basis of the qualified facility that is financed with tax-exempt debt, government grants, and other subsidized financing. The new rules limit the application of this reduction to the lesser of 15% or the ratio (expressed as a percentage) of the basis of the qualified facility that is financed with solely tax-exempt obligations (*i.e.*, no reduction is applied for financing provided in the form of government grants or other sources of subsidized financing). The new rules apply only to qualified facilities the construction of which begins after August 16, 2022.
- For qualified facilities under section 45Y(b)(1)(A) that are placed in service after 2024, such facilities would be treated as five-year property under the general depreciation system for purposes of section 168.

OBSERVATIONS:

- The new rules establish four different begun construction deadlines important for PTC facilities. The first is for purposes of eliminating the current law PTC phase-out. That date is before January 1, 2022. The second is for purposes of eliminating the prevailing wage and apprenticeship requirements necessary to qualify for the bonus credit (\$2.75/kWh for 2022). That date is 59 days after the date the IRS and Treasury publish guidance with respect to the prevailing wage and apprenticeship requirements. The third is for purposes of qualifying for the PTC under section 45 before it is superseded by the technology-neutral tax credit under section 45Y. That date is for facilities that are either placed in service before 2025 or the construction of which begins before January 1, 2025. And the fourth is for purposes of allowing tax-exempt, certain state and tribal governmental entities, and rural electric cooperatives to qualify for 100% direct pay (and other taxpayers eligible to claim the credits under sections 45Q, 45V, and 45X) to qualify for 100% direct pay. That date is before January 1, 2025. Based on the simultaneous and overlapping application of these four deadlines, we can divide the treatment of facilities into five distinct categories when evaluating qualification for the base credit or bonus credit amounts, along with the various adders described above.
- **Category 1: Facilities placed in service before 2022**
 - Facilities placed in service before 2022 remain subject to the pre-enactment provisions including the PTC phase-out percentages under current law:
 - 100% if construction begins before 2016
 - 80% if construction begins during 2017
 - 60% if construction begins during 2018
 - 40% if construction begins during 2019
 - 60% if construction begins during 2020
 - 60% if construction begins during 2021
 - No adders, direct pay, or transfer election are available for this category.
- **Category 2: Facilities placed in service during 2022 and before the date that is 59 days after the date the IRS and Treasury publish labor guidance**
 - Facilities placed in service during calendar 2022 and before the date that is 59 days after the date the IRS and Treasury publish guidance on the prevailing wage and apprenticeship requirements automatically qualify for 100% PTC (2.75 cents per kWh for 2022) without being required to satisfy either the beginning of construction or the prevailing wage and apprenticeship requirements. Only those facilities placed in service after 2022 are eligible for the adders. Eligibility to make elections for direct pay or transferability are based on the applicable or eligible entity's taxable year and can only be made for taxable years beginning after 2022.
- **Category 3: Facilities placed in service on or after the date that is 60 days after the date the IRS and Treasury publish labor guidance and before 2025**
 - Facilities placed in service on or after the date that is 60 days after the date the IRS and Treasury publish guidance on the prevailing wage and apprenticeship requirements must satisfy the prevailing wage or apprenticeship requirements to qualify for the 100% PTC (2.75 cents per kWh for 2022) but will not generally be required to satisfy the beginning of construction requirements if the facility is placed in service before 2025. Taxpayers developing these facilities will be incentivized to begin construction before the date that is 60 days after the date the IRS and Treasury publish prevailing wage and apprenticeship guidance allowing the facility to qualify for 100% PTC (2.75 cents per kWh for 2022) without being required to satisfy the prevailing wage

and apprenticeship requirements. However, by taking action to grandfather the facility from the labor requirements the taxpayer will once again be expected to satisfy both prongs of the beginning of construction requirement, including commencement and continuity. All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- **Category 4: Facilities placed in service after 2024 and the construction of which begins before 2025**

- Facilities placed in service after 2024 and the construction of which begins before 2025 must satisfy the prevailing wage or apprenticeship requirements to qualify for the 100% PTC (2.75 cents per kWh for 2022) and will be required to satisfy the beginning of construction requirements to qualify for any PTC amount even through the phase-out provisions do not apply to these facilities. Taxpayers developing these facilities will be incentivized to satisfy the prevailing wage and apprenticeship requirements as well as the beginning of construction requirements (both prongs including commencement and continuity) and will be required to document eligibility under both provisions in order to qualify for any PTC. Taxpayers developing these facilities will also be incentivized to begin construction before the date that is 60 days after the date the IRS and Treasury publish prevailing wage and apprenticeship guidance allowing the facility to qualify for 100% PTC (2.75 cents per kWh for 2022) without being required to satisfy the prevailing wage and apprenticeship requirements. All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- **Category 5: Facilities placed in service after 2024 and the construction of which begins after 2024**

- Facilities placed in service after 2024 and the construction of which begins after 2024 must still satisfy the prevailing wage or apprenticeship requirements to qualify for the 100% PTC (2.75 cents per kWh for 2022), but will no longer be required to satisfy the beginning of construction requirements for the PTC under the new technology-neutral provisions of section 45Y, provided the facility is placed in service before the phase-out provisions in section 45Y start to apply (the later of the second calendar year following the “applicable year” defined as: (1) 2032 or (2) once certain annual GHG emissions reductions are achieved by the US). All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- Although the base credit amount (0.3 cents/kWh) applies for facilities placed in service in 2022 (as a facility placed in service after 2021), any such facility placed in service during calendar 2022 effectively qualifies for the bonus credit amount (2.75 cents/kWh) because it will satisfy the wage and apprenticeship requirements by beginning construction within 59 days of the date the IRS and Treasury issue guidance, assuming guidance is not published by November 2, 2022.

- It may take the IRS and Treasury several months or longer to publish guidance defining the wage and apprenticeship requirements because the guidance is novel, it will require coordination between multiple agencies, and it will undergo a robust review process.

- For wind, solar, geothermal, and closed-loop biomass facilities placed in service after 2021, a modification to the rounding provision in section 45(b)(2) results in a base credit amount, as adjusted for inflation for 2022, of 0.55 cents/kWh. If the bonus credit applies, as it will in 2022, the 0.55 cents/kWh is multiplied by five resulting in 2.75 cents/kWh. Because the modification is effective for the PTC as of January 1, 2022, the PTC amount is retroactively increased from the 2.6 cents/kWh previously published by the IRS in Notice 2022-20 to 2.75 cents/kWh. As such, the IRS will need to publish guidance providing these PTC amounts for 2022.

- For open-loop biomass, landfill gas, trash, hydropower, and marine and hydrokinetic facilities placed in service after 2021, the base credit amount of 0.55 cents/kWh is required to be divided by two and then rounded under the language in section 45(b)(2), retroactively decreasing the PTC amount from 1.3 cents/kWh to 1.25 cents/kWh. The IRS will need to publish these amounts for 2022, as well. Going forward, the IRS will need to publish separate credit amounts for facilities placed in service before 2022 and after 2021.
- Taxpayers may wish to begin construction of facilities or energy projects as soon as possible given supply chain delays and difficulty obtaining equipment in order to ensure satisfaction of the wage and apprenticeship requirements.
- A wind facility that began construction in calendar 2016 (or after calendar 2021) is not subject to the PTC phase-out and can qualify for the full PTC if placed in service in calendar 2022, 2023, or 2024 (without regard to the begun construction requirement's continuity requirement). A wind facility that begins construction after calendar 2021 and is placed in service after calendar 2024 would still have to satisfy the begun construction requirement, including the continuity requirement to qualify for a PTC, unless the facility then meets the requirements for the technology-neutral PTC or ITC.
- A solar facility placed in service in 2022 can qualify for the full value PTC. A solar facility that is placed in service after calendar 2022 can also take advantage of additional 10% adders to the base and bonus credits for domestic content and energy communities.
- For solar plus storage projects that seek to claim a solar PTC and stand-alone storage ITC, the IRS and Treasury will likely need to issue guidance defining the boundaries of a solar facility as they have for other technologies such as biomass facilities. This guidance would be particularly important to assess whether storage that is co-located with a solar facility is considered "property which is part of a facility the production of which is allowed as a credit under section 45 for the taxable year or any prior taxable year" under section 48(a)(3) rendering the property ineligible for the ITC. In drafting such guidance, the IRS and Treasury may consider the following statement from House Ways and Means Committee Chairman Richard E. Neal, D-Mass., included in the August 12, 2022 House of Representatives Congressional Record: "Additionally, relating to the coordination of the credit for energy storage technologies and the section 45 production tax credit, the Committee intends that a credit is allowed for energy storage technology under section 48 regardless of whether it is part of a facility for which a credit under section 45 is or has been allowed.
 - Such guidance would also be necessary to define the boundaries of a solar facility in applying the "80/20 Rule" for retrofitting solar energy property that previously qualified for an ITC in order for a taxpayer to claim a PTC on a solar facility that retains some used solar energy property.
- A taxpayer that claims the ITC or PTC in taxable years beginning after December 31, 2022, can also elect to utilize the transferability provision.

Investment tax credit

- Extends the [section 48](#) ITC begun construction deadline for solar property, fiber-optic solar property, fuel cell property, microturbine property, geothermal property, combined heat and power system property, small wind energy property, and waste energy recovery property by one year to before January 1, 2025; and by 11 years for geothermal heat pumps to before January 1, 2035, with a phase-down in 2033 (5.2% base credit and 26% bonus credit) and 2034 (4.4% base credit and 22% bonus credit).
- Shortens the ITC eligibility period for offshore wind facilities that begin construction before January 1, 2026, to before January 1, 2025.
- Expands the ITC to include energy storage technology property, biogas property, and microgrid controllers placed in service after 2021 that begin construction before January 1, 2025.
 - Energy storage technology is property 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 5 kWh or more, and thermal energy storage property.
 - Thermal energy storage property is property comprising a system which (1) is directly connected to a heating, ventilation, or air conditioning system, (2) removes heat from or adds heat to, a storage medium for subsequent use, and (3) provides energy for the heating or cooling of the interior of a residential or commercial buildings. The term excludes a swimming pool, combined heat and power system property, or a building or its structural components.
- Expands the ITC to include expenditures paid or incurred after 2022 for interconnection property installed in connection with energy property with a maximum net output of 5 MWac or less to provide for the transmission or distribution of the electricity produced or stored by such property. The energy credit for interconnection property carries with it a 2% base credit amount and a 10% bonus credit amount.
- Modifies the energy percentage to a 6% base credit and 30% bonus credit for solar property, fuel cell property, combined heat and power system property, small wind energy property, geothermal property, geothermal heat pumps, and waste energy recovery property, including for newly added energy storage technology property, biogas property, microgrid controllers, linear generators, and dynamic glass.
- Modifies the energy percentage to a 2% base credit and 10% bonus credit for microturbine property.
- Provides for the 5x multiplier to the base credit amount for taxpayers that meet certain prevailing wage and apprenticeship requirements to be eligible for the full bonus credit amounts (30% or 10%) for energy property placed in service after 2022.
- Provides an election out of the ITC normalization requirements pursuant to [section 50\(d\)\(2\)](#) generally applicable to public utility property for taxpayers with respect to specific energy storage technology (with a maximum capacity of 500 kWh or less) unless the election is prohibited by a government, agency, public utility commission or other regulatory body.

- An “energy project” is a project consisting of one or more energy properties that are part of a single project. An energy project meets the prevailing wage and apprenticeship requirements if it (1) has a maximum net output of less than 1 MWac of electrical or thermal energy, (2) begins construction within 59 days after the date the IRS and Treasury publish guidance defining the prevailing wage and apprenticeship requirements, or (3) meets the substantive prevailing wage and apprenticeship requirements including:
 - Paying prevailing wages to laborers and mechanics employed by the taxpayer or any contractor or subcontractor in the construction, alteration, or repair of the energy project during the five-year ITC recapture period, and
 - Meeting apprenticeship requirements including a percentage of total labor hours of the construction, alteration, or repair work (including work performed by any contractors or subcontractors) being performed by qualified apprentices as follows:
 - 10% if construction begins before 2023; 12.5% if construction begins during 2024; and 15% if construction begins after 2024.
- Includes a 2% domestic content adder applied to the base credit amount, or a 10% domestic content adder applied to the bonus credit amount if certain domestic content requirements are satisfied (the “domestic content adder”).
- To qualify, the taxpayer must certify that any steel, iron, or manufactured product which is a component of such facility (upon completion of construction) was produced in the US. See domestic content requirement below.
- Includes a 2% energy communities adder applied to the base credit amount, or a 10% energy communities adder if the energy project is located in an “energy community.”
 - An “energy community” means: (1) a brownfield site; (2) a metropolitan statistical area or non-metropolitan statistical area which has (or had since 2009) 0.17% or greater direct employment or 25% or greater local tax revenues related to the extraction, processing, transport or storage of coal, oil or natural gas, and has an unemployment rate at or above the national average unemployment rate for the previous year; or (3) a census tract (or adjoining tract) where a coal mine closed after 1999, or a coal-fired electric generating unit was retired after 2009.
- Increases the energy credit for solar and wind facilities placed in service in connection with low-income communities, where the IRS and Treasury make an allocation of environmental justice solar and wind capacity limitation, by 10% or 20%, limited to a facility that has a maximum net output of less than 5 MWac and is in a low-income community or part of a low-income residential building project or economic benefit project (the “low-income community adder”).
- The amendments to the ITC are generally effective for property placed in service after December 31, 2021. However, the addition of energy storage and other technologies, the domestic content adder, the energy communities adder, and the low-income community adder are effective for property placed in service after December 31, 2022.
- The investment tax credit under section 48E begins to phase out when the applicable year has been reached. The credit determined under section 48E(a) is then multiplied by the phase-out percentage.
 - The applicable year is the later of (1) the calendar year in which the Secretary determines that the annual GHG emissions from the production of electricity in the US are equal to or less than 25 percent of the annual GHG emissions from the production of electricity in the US for calendar year 2022, or (2) 2032.
 - For a qualified facility or energy storage technology that begins construction during the first calendar year following the applicable year, the phase-out percent is 100%.

- For a qualified facility or energy storage technology that begins construction during the second calendar year following the applicable year, the phase-out percent is 75%.
- For a qualified facility or energy storage technology that begins construction during the third calendar year following the applicable year, the phase-out percent is 50%.
- Unlike the PTC, under current law no reduction is required when energy property is financed with tax-exempt debt, governmental grants, and other subsidized financing. New rules put the ITC on equal footing with the PTC, requiring the ITC credit amount to be reduced to the lesser of 15% or the ratio (expressed as a percentage) of the basis of the energy property that is financed with solely tax-exempt obligations (*i.e.*, no reduction is applied for financing provided in the form of government grants or other sources of subsidized financing). The new rules apply only to energy property the construction of which begins after August 16, 2022.
- For qualified property under section 48E(b)(2) or any energy storage technology under section 48E(c)(2) that are placed in service after 2024, such property would be treated as five-year property under the general depreciation system for purposes of section 168.

OBSERVATIONS:

- The new rules establish four different begun construction deadlines important for certain ITC-eligible energy property. The first is for purposes of eliminating the current law ITC phase-down (applicable to solar, fiber-optic solar, qualified fuel cell, and qualified small wind). That date is before January 1, 2022. The second is for purposes of eliminating the prevailing wage and apprenticeship requirements necessary to qualify for the bonus credit (30%). That date is 59 days after the date the IRS and Treasury publish guidance with respect to the prevailing wage and apprenticeship requirements. The third is for purposes of qualifying for the ITC before the technology neutral tax credit under section 48E supersedes section 48. That date is for energy property that is either placed in service before January 1, 2025, for energy projects the construction of which begins before January 1, 2025. And the fourth is for purposes of allowing tax-exempts, certain state and tribal governmental entities, and rural electric cooperatives to qualify for 100% direct pay. That date is before January 1, 2025. Based on the simultaneous and overlapping application of these four deadlines we can divide the treatment of energy property and energy projects into five distinct categories when evaluating qualification for the base credit or bonus credit amounts, along with the various adders described above.
- **Category 1: Energy property placed in service before 2022**
 - Energy property placed in service before 2022 remains subject to the pre-enactment provisions including the ITC phase-down percentages under current law:
 - 30% if construction begins before 2020
 - 26% if construction begins during 2020
 - 26% if construction begins during 2021
 - No adders, direct pay, or transfer election is available for this category.
- **Category 2: Energy property placed in service during 2022 and before the date that is 59 days after the date the IRS and Treasury publish labor guidance**
 - Energy property placed in service during 2022 and before the date that is 59 days after the date the IRS and Treasury publish guidance on the prevailing wage and apprenticeship requirements automatically qualify for the 30% ITC without being required to satisfy either the beginning of construction or the prevailing wage and apprenticeship requirements. Only energy property placed in service after 2022 is eligible for the adders. Eligibility to make elections for direct pay or transferability are based on the applicable or eligible entity's taxable year and can only be made for taxable years beginning after 2022.

- **Category 3: Energy property placed in service on or after the date that is 60 days after the date the IRS and Treasury publish labor guidance and before 2025**

- Energy property placed in service on or after the date that is 60 days after the date the IRS and Treasury publish guidance on the prevailing wage and apprenticeship requirements must satisfy the prevailing wage and apprenticeship requirements to qualify for the 30% ITC but will not generally be required to satisfy the beginning of construction requirements if the energy property is placed in service before 2025. Taxpayers developing these energy projects will be incentivized to begin construction before the date that is 60 days after the date the IRS and Treasury publish prevailing wage and apprenticeship guidance allowing the facility to qualify for the 30% ITC without being required to satisfy the prevailing wage and apprenticeship requirements. However, by taking action to grandfather the facility from the labor requirements the taxpayer will once again be required to satisfy both prongs of the beginning of construction requirement (including commencement and continuity). All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- **Category 4: Energy property placed in service after 2024 and that's part of an energy project that begins construction before 2025**

- Energy property placed in service after 2024 and that's part of an energy project that begins construction before 2025 must satisfy the prevailing wage or apprenticeship requirements to qualify for the 30% ITC and will be required to satisfy the beginning of construction requirements to qualify for any ITC amount even through the phase-down provisions do not apply to these energy projects. Taxpayers developing these energy projects will be incentivized to satisfy both the prevailing wage and apprenticeship requirements as well as the beginning of construction requirements (both prongs including commencement and continuity) and will be required to document eligibility under both provisions in order to qualify for any ITC. Taxpayers developing these energy projects will also be incentivized to begin construction before the date that is 60 days after the date the IRS and Treasury publish prevailing wage and apprenticeship guidance allowing the energy project to qualify for the 30% ITC without being required to satisfy the prevailing wage and apprenticeship requirements. All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- **Category 5: Energy property placed in service after 2024 and that's part of an energy project that begins construction after 2024**

- Energy property placed in service after 2024 and that's part of an energy project that begins construction after 2024 must still satisfy the prevailing wage or apprenticeship requirements to qualify for the 30% ITC but will no longer be required to satisfy the beginning of construction requirements for the ITC under the new technology neutral provisions of section 48E provided the energy property is placed in service before the phase-out provisions in section 48E start to apply (the later of the second calendar year following the "applicable year" defined as: (1) 2032 or (2) once certain annual GHG emissions reductions are achieved by the US). All adders and the direct pay or transfer elections are generally available for this category if applicable statutory requirements are satisfied.

- Effectively increases the credit amount for solar property, fuel cell property, geothermal property, geothermal heat pump, combined heat and power system property, and small wind energy property to 30% (from a phased-down 26% amount or 10%) for property placed in service after 2022.
- Solar energy property that is placed in service in 2022 or later can qualify for the ITC base credit amount (6%) or bonus credit amount (30%) without regard to the previous phase down to a 26% or 22% credit amount.

- Solar energy property placed in service after 2022 may also qualify for the domestic content, energy communities, and low-income community adders.
- Taxpayers entering into agreements with solar installers or manufacturers should consider inserting requirements that the contractor assists in the satisfaction and documentation of wage and apprenticeship and domestic content requirements.
- Energy storage technology can qualify for the ITC without meeting any threshold of charging from a renewable resource (*i.e.*, the “75% cliff” whereby the battery must charge at least 75% from solar) if it is placed in service after 2022.
- The provision does not require a reduction to the eligible basis of the energy storage technology property for costs incurred in the construction, reconstruction, or erection of such property prior to 2023, as was required by prior BBBA proposals.
- The election to not apply the ITC normalization rules to energy storage technology that is public utility property does not affect the application of the [section 168](#) deferred tax normalization requirements.
- A new transmission ITC was proposed under the BBBA. However, this provision was not included in the Act.

Carbon oxide sequestration credit

- Extends the credit under section 45Q beginning of construction deadline by seven years to before January 1, 2033.
- Decreases the qualified facility capture threshold amounts for facilities or equipment the construction of which begins after the date of enactment to the following:
 - In the case of a direct air capture facility, captures not less than 1,000 MT of qualified carbon oxide during the taxable year,
 - In the case of an electricity generating facility, captures not less than 18,750 MT of qualified carbon oxide during the taxable year, and with respect to any CCE for the applicable electric generating unit (the principal electric generating unit for which the CCE is originally planned and designed) at such facility, has a capture design capacity of not less than 75% of the baseline carbon oxide production of such unit, or
 - In the case of any other facility, captures not less than 12,500 MT of qualified carbon oxide during the taxable year.
- Modifies the applicable dollar amounts per MT introducing a base credit, and bonus 5x multiplier credit (provided that certain prevailing wage and apprenticeship requirements are met) for facilities or equipment placed in service after December 31, 2022, based on facility type and end use.
 - **For industrial facilities, including electricity generating:** The base and bonus credit amounts through 2026 are \$12 or \$60 for injection or utilization of carbon oxides, and \$17 or \$85 for disposal of carbon oxides, respectively.
 - **For direct air capture facilities:** The base and bonus credit amounts are \$26 or \$130 for injection and utilization of carbon oxides, and \$36 or \$180 for disposal of carbon oxides, respectively.
 - **Inflation adjustment after tax years 2026:** Credit amounts for tax years after 2026 will be subject to an inflation adjustment factor based on the Gross National Product Implicit Price Deflator.

- Provides that for CCE that begins construction prior to the date that is 60 days after the Secretary publishes associated guidance, and such equipment is installed at a qualified facility the construction of which begins prior to such date, the prevailing wage and apprenticeship requirements are deemed to be met.
- For any qualified facility placed in service before 2023 where additional CCE is placed in service after 2022, the modified applicable dollar amounts shall apply.
- Provides eligible taxpayers within an area affected by a federally declared disaster to make an election to begin the 12-year credit period on the first day of the first taxable year in which a credit under section 45Q is claimed with respect to CCE originally placed in service at a qualified facility on or after February 9, 2018, provided that no taxpayer has claimed a credit with respect to such CCE for any prior year and the qualified facility is located in an area affected by a federally declared disaster after the CCE is originally placed in service, and such disaster results in a cessation of facility or CCE operations. This provision would apply to carbon oxide captured and disposed of after December 31, 2021.
- For any CCE placed in service before February 9, 2018, the enactment date of the Bipartisan Budget Act of 2018 (“BBA”), the credit under section 45Q shall apply with respect to qualified carbon oxide captured before the earlier of: (1) January 1, 2023, or (2) the end of the calendar year in which the Secretary certifies that a total of 75 million metric tons of qualified carbon oxide have been taken into account, which shall take effect on the date of enactment.
- Modifies the rules governing carbon capture facilities that use tax-exempt financing and tax credits to conform the application of these rules to the section 45 PTC. The new rules apply to carbon capture equipment by limiting the application of the current law reduction to the lesser of 15% or the ratio (expressed as a percentage) of the basis of the carbon capture facility that is financed with solely tax-exempt obligations (*i.e.*, no reduction is applied for financing provided in the form of government grants or other sources of subsidized financing). The new rules apply only to carbon capture facilities the construction of which begins after August 16, 2022.

OBSERVATIONS:

- Decreased carbon capture threshold amounts significantly expand access to the credit under section 45Q, where taxpayers will likely not need to rely on the aggregation rules to treat multiple facilities as a single facility to meet threshold amounts.
- Taxpayers that have projects that are currently underway (where the construction of CCE is established prior to the date that is 60 days after the Treasury and IRS issues applicable guidance, and such CCE is placed service at a qualified facility the construction of which begins prior to such date) may be able to take advantage of the bonus credit amounts (after the 5x multiplier) without having to meet the prevailing wage and apprenticeship requirements for the construction, alternation, or repair of the facility or CCE over the 12 year credit period. However, taxpayers should diligently document the establishment of beginning of construction pursuant to [Notice 2020-12](#).
- Special provisions for direct air capture facilities (lower threshold amounts and higher credit amounts) will spur activity as direct air capture is significantly more expensive than capture from industrial facilities.
- Companies that are modeling out the bonus credit amounts (5x multiplier) as part of their carbon capture projects must ensure that any costs associated with prevailing wage and apprenticeship requirements are incorporated, if applicable.

- Effectively sunsets the credit under section 45Q for facilities or equipment placed in service prior to February 9, 2018 (\$10 and \$20 per MT, subject to inflation) for any tax years after 2023.
- The domestic content requirement or adder does not apply to the credit under section 45Q.
- Taxpayers that produce clean hydrogen where such production involves carbon capture (*i.e.*, blue hydrogen) should model out both the credits under sections 45Q and 45V.
- There are additional credit monetization options related to the credit under section 45Q for taxpayers: (1) the carryback period is increased from one year to three years; (2) a direct pay election is permitted for taxable entities for the first five years of the credit period under section 6417; and (3) taxable entities may elect to transfer all or a portion of the credit to an unrelated taxpayer for cash (not includible in gross income, nor deductible for the transferee) during the period the taxpayer is not an applicable entity for purposes of the direct pay option.

Clean hydrogen production credit

- The credit creates a new 10-year clean hydrogen production credit under section 45V for hydrogen produced through a process that results in a lifecycle GHG emission (through a lifecycle assessment or “LCA”) of not greater than 4 kg of CO₂-e per kg of hydrogen after 2022 at a qualified facility where construction begins before 2033.
- Clean hydrogen must be produced in the US or a US territory, in the ordinary course of a trade or business of the taxpayer, and for sale or use. Furthermore, the production and sale or use of such hydrogen must be verified by an unrelated third party.
- The credit provides for an election to treat clean hydrogen production facilities as energy property, providing for an ITC in lieu of PTC election.
- Both the PTC and ITC amounts are determined based on the applicable percentage, which is based on lifecycle GHG emissions rate. The applicable percentages are:
 - 100% if the emissions rate is < 0.45 kg
 - 33.4% if the emissions rate is between 0.45 kg ≤ 1.5 kg
 - 25% if the emissions rate is between 1.5 ≤ 2.5 kg
 - 20% if the emissions rate is between 2.5 kg ≤ 4 kg
- The base PTC amount is \$0.60 per kg of clean hydrogen produced (before inflation) multiplied by the applicable percentage. The associated bonus PTC amount is \$3 per kg of qualified clean hydrogen produced multiplied by the applicable percentage, which reflects the 5x multiplier provided that certain wage and apprenticeship requirements are met.
- The base ITC amount is 6% of qualified investment multiplied by the applicable percentage. The bonus ITC amount is 20% of qualified investment multiplied by the applicable percentage, which reflects the 5x multiplier provided that certain wage and apprenticeship requirements are met.
- The credit provides that a facility the construction of which begins prior to the date that is 60 days after the Secretary publishes associated guidance, the prevailing wage and apprenticeship requirements are deemed to be met for the construction of such facility. However, taxpayers must meet the prevailing wage requirements with respect to any alteration or repair of such facility which occurs after such date.

- Qualified clean hydrogen must be produced in the US or a US territory in the ordinary course of a trade or business for sale or use, and the production and sale or use of such hydrogen must be verified by an unrelated third party.
- The lifecycle GHG emissions shall only include emissions through the point of production (well-to-gate), as determined by the most recent Greenhouse gases, Regulated Emissions, and Energy use in Transportation (“GREET”) model developed by Argonne National Laboratory (or a successor model).
- Taxpayers may file a petition with the Treasury Secretary for a provisional emissions rate (*i.e.*, determination of the lifecycle GHG emissions rate with respect to such hydrogen) where the lifecycle GHG rate has not been determined.
- Within one year of enactment, the Secretary shall issue regulations or other guidance, including for determining lifecycle GHG emissions.
- Taxpayers can modify existing facilities (originally placed in service prior to January 1, 2023) to produce qualified clean hydrogen after the facility was originally placed in service to be deemed to have been originally placed in service as of the date the property required to complete the modification is placed in service for credit purposes.
- Taxpayers can claim a 10-year PTC under section 45 for electricity generated at a qualified facility after 2022 if the electricity is used produce qualified clean hydrogen during such taxable year (verification by an unrelated third party required), where the electricity will be treated as being sold to an unrelated person, satisfying the requirement under section 45(a)(2)(B).
- The credit under section 45V applies to property placed in service after 2022, and, for any property the construction of which begins prior to 2023, only to the extent of the basis thereof attributable to the construction, reconstruction, or erection after 2022.
- No credit shall be allowed under section 45V with respect to any qualified clean hydrogen produced at a facility which includes carbon capture equipment for which a credit is allowed to any taxpayer under section 45Q for the taxable year or any prior taxable year.
- New rules put the 45V credit on equal footing with the PTC requiring the 45V credit amount to be reduced to the lesser of 15% or the ratio (expressed as a percentage) of the basis of the clean hydrogen facility that is financed with solely tax-exempt obligations (*i.e.*, no reduction is applied for financing provided in the form of government grants or other sources of subsidized financing). The new rules apply only to clean hydrogen facilities the construction of which begins after August 16, 2022.

OBSERVATIONS:

- Incentivizes hydrogen production in the US based on the GHG emissions rather than technology (*e.g.*, green being electrolysis of water using renewable energy, pink being electrolysis of water using nuclear energy, blue being reforming or gasification of natural gas or coal with carbon capture, etc.).
- Refines the definition of clean hydrogen by removing the 4 kg ≤ 6 kg GHG emissions tier that was included as part of the BBBA proposal (which was up to \$0.45 per kg PTC and up to 4.5% ITC).
- Taxpayers must use the GREET LCA model to determine the GHG emissions rate of the hydrogen production. It is unclear whether preapproval will be required by the IRS and DOE, similar to the credit under section 45Q for the utilization of carbon oxides.

- Taxpayers that have already commenced construction before 2023 on their clean hydrogen production project may qualify for the credit under section 45V, but only to the extent of capitalized costs attributable to construction, reconstruction or erection after 2022. This will impact the credit amount for the ITC in lieu of PTC. However, the PTC amount is unaffected.
- Taxpayers that generate electricity from qualified energy resources at a qualified facility after 2022 may be able to claim the section 45 PTC for any electricity generated that is used to produce qualified clean hydrogen during such taxable year. (Verification by an unrelated third party is required.)
- Taxpayers involved in blue hydrogen production are modeling out whether the 45Q carbon oxide sequestration credit over the 12-year credit period or the 45V clean hydrogen production credit over the 10-year credit period would yield a higher credit.
- There are additional credit monetization options related to the credit under section 45V for taxpayers: (1) the carryback period is increased from one year to three years, (2) a direct pay election is permitted for taxable entities for the first five years of the credit period under section 6417, and (3) taxable entities may elect to transfer all or a portion of the credit to an unrelated taxpayer for cash (not includible in gross income, nor deductible for the transferee) during the period the taxpayer is not an applicable entity for purposes of the direct pay option.

Zero-emission nuclear power production credit

- A new zero-emission clean nuclear power production credit is created under section 45U for electricity generation using nuclear energy at a qualified nuclear power facility and sold to an unrelated third party over the 10-year period after 2023 and through 2032.
- Qualified nuclear power facilities must be placed in service before the date of enactment of this section and do not include an advanced nuclear power facility defined under section 45j(d)(1).
- The base PTC amount is 0.3 cents/kWh of electricity produced and sold (subject to inflation), which exceeds the reduction amount for the taxable year. The associated bonus PTC amount is \$1.5 cents/kWh (5x multiplier) if certain wage requirements are met.
- The reduction amount for any taxable year is the lessor of (1) the PTC amount multiplied by the electricity generated and sold, or (2) the amount equal to 16% of the excess gross receipts from any electricity sold over 2.5 cents (subject to inflation) multiplied by the amount of electricity sold.
- The gross receipts shall include any amount received by a taxpayer during the taxable year with respect to the qualified nuclear power facility from a zero-emission credit program, except if the full amount of the credit calculated is used to reduce payments from such zero-emission credit program.
- Zero-emission credit program means any payments with respect to a qualified nuclear power facility as a result of any federal, state, or local government program for (in whole or in part) the zero-emission, zero-carbon, or air quality attributes of any portion of electricity produced by such facility.
- For purposes of determining the amount received during such taxable year, the taxpayer shall take into account any reductions required under such program.

OBSERVATIONS:

- The 45U credit is available to taxpayers that own qualified nuclear power facilities placed in service prior to the enactment of the Act (*i.e.*, existing nuclear power plants).
- The 45U credit is reduced as the sale price of such electricity increases. The credit for any taxable year is reduced by 16% of the excess gross receipts from any electricity produced and should by the qualified nuclear power facility over the product of 2.5 cents multiplied by the amount of electricity sold during the year. Therefore, facilities with receipts of less than \$2.5 cents/kWh or \$25/MWh would be eligible for the full credit amount.
- The reduction amount of 16% of the excess gross receipts aligns with the proposal under the BBBA. The first version of the Act updated this figure to 80% which was then updated to 16% in the final text of the Act.
- The 5x multiplier for the 45U credit does not include an apprenticeship requirement.
- The credit was proposed under the BBBA, and similar House and Senate bills, H.R. 4024 and S. 2291, in June 2021. The latter included a credit phaseout when the Secretary, in consultation with the DOE and EPA, determines that the annual GHG emissions from electricity production in the US for a calendar year are equal to or less than 50% of the annual GHG emission from electricity production in the US for calendar year 2020, equal to 2x the percentage amount that exceeds 50%. Rather than a phase-out provision, the Act provides that the credit is available through 2032.

Labor requirements and additional credit amounts

Prevailing wage and apprenticeship requirements

- With respect to most of the clean energy credits in the Act, taxpayers must satisfy prevailing wage and apprenticeship requirements to qualify for the “full amount” of the credit, the “bonus credit.”
- Failure to satisfy these labor requirements reduces the amount of the credit to a “base credit” amount generally equal to 20% of the current statutory credit amount (6% ITC and 0.55 cent PTC per kWh for 2022).
- The prevailing wage requirements and apprenticeship requirements are adopted for: sections 30C, 45, 45L, 45Q, 45W, 45Y, 45Z, 48, 48C, 48D, and 179D.
- **Prevailing wage requirements:** Any laborers and mechanics employed by the taxpayer or any contractor or subcontractor (1) in the construction of the energy project or facility, and (2) for construction, alteration, or repair of such energy project or facility for any portion of such taxable year during the applicable tax credit period (*i.e.*, five-year recapture period with respect to ITC-eligible projects and 10-year tax credit period with respect to PTC-eligible facilities) must be paid wages at rates not less than the prevailing rates for construction, alteration, or repair of a similar character in the locality in which such facility or energy project is located as most recently determined by the Secretary of Labor in accordance with certain statutory Department of Labor requirements.

- A taxpayer can correct its failure to pay prevailing wages by making payments to such laborer or mechanic in an amount equal to the difference between the amount required to be paid and the amount actually paid plus interest on such true up, and pay a penalty in the amount of \$5,000 per laborer and mechanic who were paid wages below the prevailing wages for any period during the year in the form of a tax. If the Secretary determines the failure to pay prevailing wages was due to intentional disregard of the requirements, then the penalty amount increases to \$10,000 per laborer and mechanic.
- **Apprenticeship requirements:** To be eligible for the enhanced credit, a taxpayer must ensure that not less than 10% in the case of qualified facilities the construction of which begins before January 1, 2023, 12.5% in the case of a qualified facility the construction of which begins after December 31, 2022 and before January 1, 2024, and 15% in the case of a qualified facility the construction of which begins after December 31, 2023, of the total labor hours of the construction, alteration, or repair work (including such work performed by any contractor or subcontractor) with respect to such facility shall be performed by qualified apprentices.
- Each contractor and subcontractor who employs four or more individuals to perform construction, alteration, or repair work with respect to the construction of a qualified facility must employ one or more qualified apprentices to perform such work.
- The apprentice-to-journeyworker ratio is subject to any applicable requirements for apprentice-to-journeyworker ratios of the Department of Labor or the applicable state apprenticeship agency.
- A taxpayer will be deemed to have satisfied the apprenticeship requirements if the taxpayer has requested qualified apprentices from a registered apprenticeship program, as defined in [section 3131\(e\)\(3\)\(B\)](#) and such request has been denied, provided that such denial is not the result of a refusal by the contractors or subcontractors engaged in the performance of construction, alteration, or repair work with respect to such qualified facility to comply with the established standards and requirements of the registered apprenticeship program, or the registered apprenticeship program fails to respond to such request within five business days after the date on which such registered apprenticeship program received such request.
- If the taxpayer fails to satisfy the prevailing wage and apprenticeship requirement with respect to construction, alteration, or repair work on any qualified facility then the taxpayer is subject to a penalty in an amount equal to \$50 multiplied by the number of total labor hours for which did not satisfy the labor and apprenticeship requirements. In addition, if the Secretary determines the failure to satisfy the labor and apprenticeship requirements was due to intentional disregard then the penalty increases to \$500 per hour which did not satisfy the labor and apprenticeship requirements.
- Labor hours performed by foremen, superintendents, owners, and persons employed in a bona fide executive, administrative, or professional capacity (within the meaning of those terms in part 541 of title 29 of the Code of Federal Regulations) are excluded from the calculation of total hours.

OBSERVATIONS:

- The inclusion of these prevailing wage and apprenticeship requirements in numerous Code sections is the biggest overall shift to the current law structure for computing federal income tax credits. Instead of a taxpayer qualifying for the statutory credit amount (e.g., 1.5 cents/kWh adjusted for inflation to 2.6 cents/kWh for current law PTC in some cases or 30% current law ITC in some cases), the new structure allows a taxpayer to qualify for the statutory base credit amount (e.g., 0.3 cents/kWh adjusted for inflation to 0.55 cents/kWh for current law PTC in some cases or 6% current law ITC in some cases) and that amount may be multiplied by five if the prevailing wage and apprenticeship requirements are satisfied in order to achieve the bonus credit amount.
- Complying with the prevailing wages requirements may not be difficult for some taxpayers that already have terms included in their contractual arrangements with contractors and subcontractors requiring the payment of prevailing wages. However, other taxpayers in certain jurisdictions may not typically pay prevailing wages or require such payment as a condition in their contracting.
- Taxpayers may consider ensuring that contractors (and subcontractors) pay prevailing wages by modifying existing contracts and including specific provisions in new ones.
- More uncertainty exists with respect to whether and how taxpayers will comply with the apprenticeship requirements by ensuring that the percentage thresholds of “total labor hours” will be performed by “qualified apprentices.”
- Although a “good faith effort” exception applies, guidance from the IRS and Treasury may be required for taxpayers to obtain comfort with meeting this provision.
- Taxpayers may qualify for the bonus credit amounts (5x multiplier) by establishing beginning construction before 60 days after the IRS and Treasury publish guidance on defining the requirements where such taxpayers are treated as satisfying the prevailing wage and apprenticeship requirements.
- In determining whether construction has begun, taxpayers should look to a number of IRS notices that define the beginning of construction (e.g., Notice 2013-29 for PTC facilities; Notice 2018-59 for ITC energy property; and Notice 2020-12 for the credit under section 45Q). Taxpayers will have to meet both prongs of the begun construction requirement: (1) physical work of a significant nature or incurring at least 5% of the total cost of the facility or property or project; and (2) demonstrating continuous construction, continuous efforts, or being placed in service within the continuity safe harbor period (4 to 10 years depending on the technology).
- It is unknown when the IRS and Treasury may publish guidance pertaining to prevailing wage and apprenticeship requirements. Given the numerous guidance projects and competing priorities, it is possible that such guidance may not be released until 2023 (or much later). The Act does not specify the type of guidance required, and regulations would presumably take longer than a notice to be written, reviewed, approved and published.
- Taxpayers may want to model out the cost of complying with the substantive prevailing wage and apprenticeship requirements versus beginning construction right away including the costs to procure, obtain, and maintain any equipment or construction activities completed.
- Taxpayers will also need to consider whether there is enough time, supplies, and materials to begin construction in the near future given current supply chain delays.

Domestic content requirements

- The domestic content requirements are adopted for sections 45, 45Y, 48, and 48E and apply only for facilities or energy projects placed in service after 2022.
- A taxpayer satisfies this requirement by certifying to the Secretary that any steel, iron, or manufactured product which is a component of such facility (upon completion of construction) was produced in the US (as determined under section 661 and 661.5 of title 49 in the Code of Federal Regulations).
- In the case of construction materials made primarily of steel or iron (including structural steel or iron, steel or iron beams and columns) "all steel and iron manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives."
- Exceptions apply to any steel or iron which is used as a component or subcomponent of other manufactured products incorporating steel or iron components.
- For this purpose, "the manufactured products which are components of a qualified facility upon completion of construction shall be deemed to have been produced in the United States if not less than the adjusted percentage of the total costs across all such manufactured products of such facility are attributable to manufactured products (including components) which are mined, produced, or manufactured in the United States." The adjusted percentage for manufactured products is as follows:
 - 40% if construction begins before 2025 (section 45)
 - 45% if construction begins during 2025 (section 45Y)
 - 50% if construction begins during 2026 (section 45Y)
 - 55% if construction begins after 2026 (section 45Y)
- Special domestic content rules apply for offshore wind facilities reducing the adjusted percentage as follows:
 - 20% if construction begins before 2025 (section 48)
 - 27.5% if construction begins during 2025 (section 48D)
 - 35% if construction begins during 2026 (section 48D)
 - 45% if construction begins during 2027 (section 48D)
 - 55% if construction begins after 2027 (section 48D)
- Domestic content requirements are phased in for purposes of determining the direct pay percentage for applicable entities eligible to elect direct pay.
- Energy projects or facilities that begin construction before 2024 are not subject to domestic content requirements to qualify for 100% direct pay.
- Energy projects or facilities the construction of which begins during 2024 and fail domestic content requirements are eligible for direct pay at 90% of the base credit or bonus credit amount otherwise available.

- Energy projects or facilities the construction of which begins after 2024 no longer qualify for the section 45 PTC or section 48 ITC and must qualify under the new clean electricity production credit described in section 45Y or the new clean electricity investment credit described in section 48E.
 - Sections 45Y and 48E pick up where sections 45 and 48 leave off as it relates to phasing in domestic content requirements. Energy projects or facilities the construction of which begins during 2025 and fail domestic content requirements are eligible for direct pay at 85% of the base credit or bonus credit amount otherwise available.
 - Energy projects or facilities the construction of which begins after 2025 and fail domestic content requirements are eligible for direct pay at 0% of the base credit or bonus credit effectively phasing out direct pay for non-compliant energy projects and facilities.

OBSERVATIONS:

- The domestic content provision is a considerably larger carrot than it is a stick in the Act, as opposed to in the prior BBBA proposals where it was equally a carrot and stick.
- In other words, the domestic content adder (whether 2% or 10% for the ITC or 10% multiplied by the PTC amount) is mostly a potential upside benefit for taxpayers that use steel, iron and manufactured products that are “produced in the United States.”
- The potential downside for taxpayers may be more limited because the “stick” is a limitation on the ability to utilize the direct pay option for credit monetization purposes if domestic content is not used, and the number of taxpayers able to elect a direct payment is largely limited to certain tax-exempt and state governmental entities (among other entities) resulting in a smaller universe of taxpayers impacted by not meeting the domestic content requirement.
- It is noteworthy that the domestic content adder is not available for the credits under sections 45Q, 45V or 45X, and correspondingly does not impact taxpayers’ ability to elect a direct payment if claiming those credits.
- Taxpayers will require guidance from the IRS and Treasury in order to determine whether their steel, iron and manufactured products are produced in the US, as the Act requires the government to provide procedures for a taxpayer to certify that it has met such requirements.
 - In particular, determining whether a manufactured product (including components) is mined, produced, or manufactured in the US is an involved process.
- In order to make such a determination, taxpayers are required to apply Department of Transportation regulations and may need to look to some of the same trade considerations for applying customs and duties, including application of US Customs and Border Protection, US Trade Agreements Act and the US Federal Acquisition Regulation.
- Concepts and determinations surrounding the country of origin and substantial transformation may be applicable and consultation with trade advisory professionals may be warranted.
- Taxpayers will want to consider including provisions in procurement contracts requiring vendors to utilize US steel, iron and manufactured products, as well as providing documentation coordination and support.

Energy communities

- In order to qualify for the energy communities adder, a qualified facility or energy project must be located or placed in service in an energy community.
- An “energy community” means: (1) a brownfield site; (2) a metropolitan statistical area or non-metropolitan statistical area which has (or had since 2009) 0.17% or greater direct employment or 25% or greater local tax revenues related to the extraction, processing, transport or storage of coal, oil or natural gas, and has an unemployment rate at or above the national average unemployment rate for the previous year; or (3) a census tract (or adjoining tract) where a coal mine closed after 1999, a coal-fired electric generating unit was retired after 2009.
- The energy communities adder is adopted for: sections 45, 45Y, 48, and 48E and applies only for qualified facilities located in and energy projects placed in service within an energy community after 2022.
- Provides a 10% energy communities adder applied to the base credit or bonus credit amount under sections 45 or 45Y if the qualified facility is located in an energy community.
- Provides a 2% energy communities adder applied to the base credit amount, or a 10% energy communities adder applied to the bonus credit amount if the energy project is placed in service in an energy community.

OBSERVATIONS:

- The areas that comprise energy communities within the US and are included within this definition are expected to be predominately concentrated in states and geographies where significant fossil fuel and coal extraction, processing, transport, and storage related activities have historically been centered. This includes parts of West Virginia, Pennsylvania, Texas, and Louisiana.
- However, the qualifying geographies will also be diverse and spread across the entire US given the number of brownfield sites, closed coal mines, and retired coal-fired electric generating units that have occurred in recent years as the energy industry has transitioned to natural gas and renewable energy.
- There does not appear to be a readily accessible source or map available to identify the boundaries of the designated energy communities for the purposes of evaluating whether specific locations fall within or outside an energy community.
- We expect that the IRS and Treasury will establish a guidance project that will clearly identify those geographies that are included within this definition so that taxpayers can reliably assess whether a qualified facility or energy project is located or placed in service within an energy community for purposes of claiming the adder.
- It is also not immediately clear whether the entire qualified facility or energy project needs to be located or placed in service within the geographic boundaries of one or more energy communities or whether the IRS and Treasury will impose another standard requiring a minimum threshold be satisfied when the qualified facility or energy project straddles an energy community and a nonenergy community.

- Guidance previously issued on similar issues under the qualified opportunity zones or in Notice 2021-05 with respect to the determination of a Federal Land Project may provide some insight into how this might be addressed in future guidance.
- Offshore wind projects in particular will require guidance since although the majority of the energy property is unlikely to be “placed in service” within an energy community, the onshore portions within an energy community may be substantial compared to those portions outside an energy community. In addition, the activities undertaken onshore within the geographic footprint of an energy community may be considered the catalyst to increased employment and local tax revenue generation satisfying the policy goal to incentivize investment and employment within the defined geography.

Manufacturing credits

Qualified advanced energy project credit

- Re-institutes the application-based credit under section 48C for advanced energy projects with \$10 billion in new funding, \$4 billion of which is reserved for projects located in certain energy communities under section 45(b)(11)(B)(iii).
- Modifies the credit percentage to a 6% base credit and provides for the 5x multiplier for taxpayers that meet certain wage and apprenticeship requirements to be eligible for the full bonus credit amount of 30%.
- Eligible basis for the credit consists of property necessary for the production of a specified advanced energy property that is tangible personal property, or other tangible property (not including a building or its structural components), but only if such property is used as an integral part of the qualified investment credit facility, and with respect to which depreciation (or amortization in lieu of depreciation) is allowable.
- The credit is based on eligible costs associated with a “qualifying advanced energy project” which the Act defines as a project which:
 - Establishes, expands, or re-equips manufacturing or industrial facilities for the production of or recycling of certain energy property, including:
 - Property designed to be used to produce energy from the sun, water, wind, geothermal deposits (within the meaning of section 613(e)(2)), or other renewable resources
 - Fuel cells, microturbines, or energy storage systems and components
 - Grid modernization equipment or components
 - Property designed to remove, use, or sequester carbon oxide emissions
 - Property or equipment designed to refine, electrolyze, or blend any fuel, chemical, or product which is renewable, or low-carbon and low emission
 - Property designed to produce energy conservation technologies (including residential, commercial, and industrial applications)
 - Light-, medium-, or heavy duty electric or fuel cell vehicles, as well technologies, components, or materials for such vehicles, and associated charging or refueling infrastructure

- Hybrid vehicles with a gross vehicle weight rating of not less than 14,000 pounds, as well as technologies, components, or materials for such vehicles
- Other advanced energy property designed to reduce GHG emissions as may be determined by the Secretary
- Re-equips an industrial or manufacturing facility with equipment designed to reduce GHG emissions by at least 20% through the installation of certain property (e.g., low- or zero-carbon process heat systems, carbon capture, transport, utilization and storage systems, critical materials processing, refining, or recycling).
- The 48C credit is subject to a competitive application process that is jointly administered by the IRS and the Department of Energy (“DOE”). The DOE assesses applications based on factors such as commercial viability, domestic job creation, technological innovation, speed to project completion, and potential for reducing air pollution and GHG emissions. In prior allocations the DOE has also considered additional factors, including diversity of geography, technology, and project size, and regional economic development.
- Taxpayers may not claim a credit until they receive an allocation award and a project certification letter from the IRS. After receiving a certification, an applicant will have 2 years to place the project in service.
- The credit is not available for any investment if a credit is allowed under sections [48](#), [48A](#), [48B](#), [48E](#), [45Q](#), or [45V](#).
- The amendments to the section 48C credit become effective on January 1, 2023.

Advanced manufacturing production credit

- Creates a new advanced manufacturing PTC under section 45X to incentivize the production and sale of certain components of solar, wind, and battery property after 2022 through 2032.
- The credit is equal to the sum of the credit amounts for each eligible component produced by a taxpayer and sold to an unrelated party within the US or a US territory.
- A taxpayer may make an election to be treated as selling components to an unrelated party if such component is sold to a related party.
- A taxpayer shall be treated as having sold an eligible component if such component is integrated, incorporated, or assembled into another eligible component that is sold to an unrelated person.
- The 45X credit amount varies based on the eligible component. Eligible components include (1) solar energy components, (2) wind energy components, (3) certain inverters, (4) qualifying battery components, and (4) applicable critical minerals.
- The credit amount with respect to any eligible component, including any eligible component it incorporates, shall be equal to:
 - In the case of a thin photovoltaic cell or crystalline photovoltaic cell, an amount equal to the product of 4 cents multiplied by the capacity of such cell (expressed on a per direct current watt basis)
 - In the case of a photovoltaic wafer, \$12 per square meter
 - In the case of solar grade polysilicon, \$3 per kg
 - In the case of polymeric backsheet, 40 cents per square meter

- In the case of a solar module, an amount equal to the product of 7 cents multiplied by the capacity of such module (expressed on a per direct current watt basis)
 - In the case of a wind energy component: (1) if such component is a related offshore wind vessel, an amount equal to 10% of the sales price of such vessel, and (2) if such component is not a related offshore wind vessel, an amount equal to the product of the applicable amount with respect to such component multiplied by the total rated capacity (expressed on a per watt basis) of the completed wind turbine for which such component is designed
 - In the case of a blade, 2 cents
 - In the case of a nacelle, 5 cents
 - In the case of a tower, 3 cents
 - In the case of an offshore wind foundation (1) that uses a fixed platform, 2 cents, or (2) that uses a floating platform, 4 cents.
 - In the case of a torque tube, 87 cents per kg;
 - In the case of a structural fastener, \$2.28 per kg;
 - In the case of an inverter, an amount equal to the product of the applicable amount with respect to such inverter multiplied by the capacity (expressed on a per alternating current watt basis)
 - In the case of a central inverter, 0.25 cents
 - In the case of a utility inverter, 1.5 cents
 - In the case of a commercial inverter, 2 cents
 - In the case of a residential inverter, 6.5 cents
 - In the case of a microinverter or a distributed wind inverter, 11 cents
 - In the case of electrode active materials, an amount equal to 10% of the costs incurred by the taxpayer with respect to production of such materials,
 - In the case of a battery cell, an amount equal to the product of \$35, multiplied by the capacity of such battery cell (expressed on a kilowatt-hour basis), subject to certain capacity limitations.
 - In the case of a battery module, an amount equal to the product of \$10 (or, in the case of a battery module which does not use battery cells, \$45) multiplied by the capacity of such battery cell (expressed on a kilowatt-hour basis), subject to certain capacity limitations; and
 - In the case of any applicable critical mineral, an amount equal to 10% of the costs incurred by the taxpayer with respect to production of such mineral.
- “Applicable critical minerals” include: aluminum, antimony, barite, beryllium, cerium, cesium, chromium, cobalt, dysprosium, europium, fluor spar, gadolinium, germanium, graphite, indium, lithium, manganese, neodymium, nickel, niobium, tellurium, tin, tungsten, vanadium, yttrium, as well as certain other minerals provided that such mineral is purified to a minimum purity of 99% by mass (e.g., arsenic, bismuth, erbium, gallium, hafnium, holmium, iridium, lanthanum, lutetium, magnesium, palladium, platinum, praseodymium, rhodium, rubidium, ruthenium, samarium, scandium, tantalum, terbium, thulium, titanium, ytterbium, zinc, and zirconium).
 - The term “eligible component” shall not include any property which is produced at a facility if the basis of any property which is part of such facility is taken into account for purposes of the credit allowed under section 48C after the date of the enactment of this section.

- The credit will begin to phase down in the case of any eligible component (with the exception of any critical mineral) sold after December 31, 2029, as follows:
 - In the case of an eligible component sold during calendar 2030, 75%
 - In the case of an eligible component sold during calendar 2031, 50%
 - In the case of an eligible component sold during calendar 2032, 25%
 - In the case of an eligible component sold after calendar 2032, 0%

OBSERVATIONS:

- The Act provides significant funding (\$10 billion) for the 48C credit, although it is less than half of the allocation amount proposed in the BBBA (\$25 billion over 10 years). It is unclear whether all of the current funding will be allocated in a single year or over the course of multiple years.
- As noted, 40% of the \$10 billion of the allocation (\$4 billion) is reserved for projects in a census tract which is described as an “energy community” and in which prior to the enactment date, no project previously received a 48C credit allocation. In other words, \$4 billion of the funding is set aside for energy communities but if an energy community received a prior 48C allocation, projects within the census tract may only be awarded an allocation from the remaining \$6 billion in funding.
- As in previous allocations, Treasury was given 180 days after the date of enactment to establish a program to consider and award certifications for qualified investments eligible for credits to qualifying advanced energy project sponsors. We anticipate the program established for this allocation round will leverage some elements of the prior program first established in [Notice 2009-72](#) but will also likely include updated guidance.
- Consistent with prior allocation rounds, if a taxpayer receives an award under section 48C, the IRS will publicly disclose the identity of the applicant, the amount of the credit with respect to such applicant, and the project location for which such credit was allocated.
- The definition of an “advanced energy project” under section 48C has been expanded to industrial facilities and the recycling of certain energy property (previously limited to manufacturing facilities and the production of certain energy property).
- There are two special provisions under section 45X where the taxpayer is treated as selling eligible components to an unrelated party: (1) if such component is sold to a related party, and (2) if such component is integrated, incorporated, or assembled into another eligible component that is then sold to an unrelated person.
- There are multiple 45X credit monetization options for taxpayers: (1) the credit carryback period is increased from one year to three years, (2) a direct pay election is permitted for taxable entities for any consecutive five year period within the 45X credit period under section 6417, and (3) taxable entities may elect to transfer all or a portion of the credit to an unrelated taxpayer for cash (not includible in gross income, nor deductible for the transferee) during the period the taxpayer is not an applicable entity for purposes of the direct pay option.

- A manufacturer that has qualified for and claimed the credit under section 48C with respect to any property which is part of a qualifying advanced energy project cannot claim the advanced manufacturing production credit under section 45X for any eligible components produced at the same manufacturing facility.

Transportation and fuels incentives

Alternative fuel credits

- The biodiesel and renewable diesel credit under [section 40A](#) was extended to December 31, 2024. Effective for fuel sold after December 31, 2021.
- The alternative fuel credit under [section 6426](#) was extended to December 31, 2024. Effective for fuel sold after December 31, 2021.
- Updates the definition for alternative fuel under section 6426(d)(2) to remove “liquified hydrogen,” terminating the excise tax credit for hydrogen sold or used after 2022.
- Adds sustainable aviation fuel (SAF) credit under section 6426(k) for an excise tax credit similar to the newly added general business credit under section 40B.
- The alternative fuel mixture credit under section 6426 extended to December 31, 2024. Effective for fuel sold after December 31, 2021.
- Second generation biofuel under [section 40\(b\)](#) was extended to 2025. Effective for qualified second-generation biofuel production after December 31, 2021.
- Creates a sustainable aviation fuel credit under section 40B equal to the \$1.25 per gallon, plus an applicable supplementary amount (up to \$0.50), of qualified mixture of SAF and kerosene used or sold after 2022 through 2024.
 - The applicable supplementary amount is an adder of \$0.01 for each percentage point by which the GHG emission reduction percentage of the SAF exceeds 50% (not to exceed \$0.50).
 - A “qualified mixture” means a mixture of SAF and kerosene produced in the US for use in an aircraft in the ordinary course of a trade or business in the US or a US territory.
 - “Sustainable aviation fuel” means a liquid fuel, the portion of which is not kerosene, which (1) meets the requirements of either American Society for Testing and Materials (“ASTM”) International Standard D7566 or the Fischer Tropsch provisions of ASTM International Standard D1655, Annex, A1; (2) is derived from biomass feedstock; (3) is not derived from palm fatty acid distillates or petroleum; and (4) has been certified as having at least a 50% lifecycle GHG emissions (or lifecycle assessment, “LCA”) reduction compared with petroleum-based jet fuel in accordance with certain standards.
 - The LCA must be in accordance with either the Carbon Offsetting and Reduction Scheme for International Aviation or any similar methodology which satisfies certain criteria under the Clean Air Act (42 U.S.C. 7545(o)(1)(H)).

- Taxpayers must be registered with the Secretary under section 4101 and provide certification (in the form and manner as the Secretary shall prescribe) from an unrelated party demonstrating applicable compliance, including supply chain traceability and information transmission requirements.
- The 40B credit shall be properly reduced to take into account any benefit provided with respect to SAF solely by reason of the application of section 6426 or 6427(e).
- Creates a clean fuel production credit under section 45Z equal to \$0.20 per gallon of clean transportation fuel produced and sold (\$0.35 per gallon for SAF) multiplied by the emission factor for such fuel, after 2024 through 2027. The applicable amount is increased to \$1 per gallon of clean fuel produced and sold (\$1.75 per gallon for SAF) if certain prevailing wage and apprenticeship requirements are met. The applicable amounts are subject to inflation after 2024.
- The Secretary shall annually publish a table which sets forth the emissions rate for similar types and categories of transportation fuels based on the amount of lifecycle GHG emissions for such fuels, expressed in kg of CO₂-e per million British thermal units (mmBTU), which a taxpayer shall use for purposes of calculating the credit.
- Taxpayers may file a petition with the Treasury Secretary for a provisional emissions rate (*i.e.*, determination of the lifecycle GHG emissions rate with respect to such fuel) where the lifecycle GHG rate has not been determined.
- Not later than January 1, 2025, the Secretary shall issue guidance, including calculation of emissions factors for transportation fuels and the determination of 45Z clean fuel production credits.

OBSERVATIONS:

- Retroactively extends existing excise tax credits that expired after December 31, 2021.
- Allows taxpayer to claim either a general business credit under section 40B or excise tax credit under section 6426 for SAF through 2024. Beginning in 2025, the 45Z clean fuel production credit is available to taxpayers.

Clean vehicle credits

- Extends the credit under section 30D for the purchase of a “clean vehicle” (previously titled: new qualified plug-in electric drive motor vehicle credit) placed in service after 2022 and through 2032.
- Eliminates the 30D credit phase out when a manufacturer sells 200,000 qualified vehicles.
- The term “new clean vehicles” includes both electric and hydrogen fuel cell vehicles with a minimum battery capacity of 7 kWh the final assembly of which occurs within North America. Final assembly means process by which a manufacturer produces a new clean vehicle at, or through the use of, a plant, factory, or other place from which the vehicle is developed to a dealer or importer with all component parts necessary for the mechanical operation of the vehicle, whether or not the components parts are permanently installed in or on the vehicles.
- Retains the maximum the 30D credit amount of \$7,500. However, the credit amount is \$3,750 if the vehicle meets the new critical minerals and another \$3,750 if the vehicle meets the new battery component requirements.

- A certain percentage of the critical minerals (as defined in section 45X(c)(6)) contained within the vehicle battery from which the electric motor of such vehicle draws electricity must be (1) extracted or processed in the US or in any country with which the US has a free trade agreement in effect, or (2) recycled in North America.
 - 40% in the case of a vehicle placed in service before 2024
 - 50% in the case of a vehicle placed in service in 2024
 - 60% in the case of a vehicle placed in service in 2025
 - 70% in the case of a vehicle placed in service in 2026
 - 80% in the case of a vehicle placed in service after 2026
- A certain percentage of the vehicle battery component must be manufactured or assembled in North America.
 - 50% in the case of a vehicle placed in service before 2024
 - 60% in the case of a vehicle placed in service during 2024 or 2025
 - 70% in the case of a vehicle placed in service during 2026
 - 80% in the case of a vehicle placed in service during 2027
 - 90% in the case of a vehicle placed in service during 2028
 - 100% in the case of a vehicle placed in service after 2028
- Sets limitations on the manufacturer’s suggested retail prices (“MSRP”) based on the vehicle classification to be eligible for the 30D credit: \$80,000 in the case of a van, sport utility vehicle, or pickup truck; or \$55,000 in the case of any other vehicle.
- Limits the 30D credit to taxpayers with a MAGI not exceeding certain thresholds:
 - \$300,000 in the case of a joint return or surviving spouse
 - \$225,000 in the case of a head of household
 - \$150,000 in the case of any other taxpayer
- The following vehicles are not eligible for the 30D credit:
 - Any vehicles placed in service after 2024 which contain any of the applicable critical minerals contained in the vehicle battery that were extracted, processed, or recycled by a foreign entity of concern.
 - Any vehicles placed in service after 2023 which contain battery components that were manufactured or assembled by a foreign entity of concern.
- Allows for taxpayers to make an election to transfer the 30D credit to the eligible entity (*i.e.*, the dealer which sold such vehicle to the taxpayer) in exchange for cash or in the form of a partial payment or down payment for the purchase of such vehicle in an amount equal to the credit otherwise allowable to such taxpayer (not includible in gross income). The dealer must be registered with the Secretary and disclose the sale of the vehicle to the Secretary prior to the election.
- The Treasury and IRS will issue proposed guidance related to the 30D credit no later than December 31, 2022.
- Creates a credit under section 25E for the purchase of a previously owned clean vehicle equal to the lesser of \$4,000 or 30% of the sale price after 2022 through 2032, for motor vehicles the model of which is at least two years earlier than the calendar year in which the taxpayer acquires the vehicle, limited to the first transfer of the vehicle.

- Limits the credit under section 25E to taxpayers with a MAGI not exceeding certain thresholds:
 - \$150,000 in the case of a joint return or surviving spouse
 - \$112,500 in the case of a head of household
 - \$75,000 in the case of any other taxpayer
- Creates a credit under section 45W for the purchase of a qualified commercial clean vehicle equal to the lesser of 15% of the basis of such vehicle (30% in the case of a vehicle not powered by a gasoline or diesel internal combustion engine), or the incremental cost of such vehicle equal to the excess of the purchase price over the price of a “comparable vehicle” for vehicles acquired after 2022.
- A comparable vehicle is any vehicle powered solely by a gasoline or diesel internal combustion engine and which is comparable in size and use.
- The 45W credit amount is limited to \$7,500 for vehicles with a gross vehicle weight of less than 14,000 pounds and \$40,000 for vehicles with a gross vehicle weight of 14,000 pounds or more.
- While the special rules of section 30D(f) generally apply to commercial clean vehicles under 45W, the limitations related to maximum MSRP and MAGI amounts are not applicable.
- Extends the placed-in-service deadline under section 30C for qualified alternative fuel vehicle (“QAFV”) refueling property from December 31, 2021, to December 31, 2032 (retroactive).
- The 30C credit is modified to 6% for property subject to depreciation but can be increased to 30% if prevailing wage and apprenticeship requirements are met.
- The credit limitation is increased from \$30,000 to \$100,000, with respect to any single item of QAFV refueling property, removing the location restriction.
- Limits the 30C credit to property placed in service in an eligible census tract (*i.e.*, certain low-income census tracts under section 45D(e) or is not an urban area).
- Retains the same definition for alternative fuels (including electricity) and clarifies that bidirectional charging equipment may be treated as QAFV refueling property.
- Provides a special rule for EV charging stations to be treated as QAFV refueling property for certain vehicles with two or three wheels.

OBSERVATIONS:

- While the section 30D credit cap of 200,000 vehicles sold per manufacture is removed, other requirements may present challenges for some vehicle manufacturers and purchasers (*i.e.*, of critical minerals and battery components).
- It is also noteworthy that certain clean vehicle credits are limited to taxpayers with a MAGI not exceeding certain thresholds: \$300,000 or \$150,000 in the case of a joint return or a surviving spouse; \$225,000 or \$112,500 in the case of a head of household; and \$150,000 \$75,000 in the case of any other taxpayer, for the sections 30D and 25E credits, respectively.
- The credit under section 25E for previously owned clean vehicles does not require final assembly in North America or certain critical minerals and battery component requirements sourcing requirements.

- It is expected that the new 45W credit will incentivize businesses to electrify their fleets of vehicles and invest in alternative fuel vehicles.
- Vehicle credits have been limited to motor vehicles that are manufactured primarily for use on public streets, roads, and highways. However, the section 45W credit includes a “new qualified plug-in electric drive motor vehicle” acquired for use or lease by a taxpayer (not for resale) includes mobile machinery (defined under section 4058(8)) which includes vehicles that are not designed to perform a function of transporting a load over public highways.
- The Act clarifies an open question from the BBBA proposals, that the MSRP and MAGI limitations do not apply for qualified commercial clean vehicles.
- Section 45W also specifically requires the IRS and Treasury to issue guidance related to the determination of the incremental cost of any qualified commercial clean vehicle.
- While the 45W credit is an “applicable credit” for purposes of section 6417 such that certain tax-exempt entities and other non-taxable entities may elect to claim a direct payment in lieu of the credit, section 45W is not an “eligible credit” for purposes of section 6418. This allows transferability of credits generally not described as “applicable credits” in section 6417.
- For purposes of section 30C, under current law a taxpayer is limited to a \$30,000 credit per location per year. The Act increases the credit limit to \$100,000 and also removes the location limitation by capping the credit for a single item.
- Taxpayers may look to the IRS and Treasury to define “single item.” The term appears to be significantly narrower than a “location” and this removes an open question surrounding whether the credit amount could be limited for all charging infrastructure property installed on different parts of a single campus or commercial development.
- In the absence of guidance, one may look to define a single item by borrowing a functional interdependence test from other investment credits. However, it is unclear whether a single item could include a string of electric vehicle chargers separately operated, or whether a single item is intended to consider a single refueling station pump.
- The Act includes a new limitation on eligibility not included in the BBBA proposals. section 30C property must be located in a low-income (as defined in section 45D(e) or non-urban (as defined by the Bureau of the Census) census tract.
- The section 30C credit may be of particular interest to REITs operating properties in eligible low-income and non-urban census tracts as these credits are not subject to the REIT distribution limitations that impair the value of other energy property under ITC rules. In addition, the section 30C credit is transferable under new section 6418 and the rules make clear that the proceeds from the sale of the tax credit are excluded from gross income generally avoiding REIT qualified income concerns.
- Section 30C is an “applicable credit” for purposes of the direct pay option in section 6417 for certain tax-exempt entities, and section 30C is an “eligible credit” for purposes of the transferability provision in section 6418.
- Does not include the ability to claim additional credits beyond the cap if certain requirements are satisfied, as was included in the BBBA.

- A taxpayer is not ineligible for the 30C credit if the charging property is bidirectional (e.g., can be used to provide electricity to a home), however, there still may be a question as to whether the credit must be reduced if it serves a dual purpose beyond charging a motor vehicle in certain circumstances.

Residential and energy efficiency incentives

- Extends [section 25C](#) nonbusiness energy property credit to December 31, 2032.
- Increases the credit percentage to 30% for qualified energy efficient improvements and residential energy property expenditures.
- Applies an annual limitation for certain property (e.g., windows, doors, heat pumps and heat pump water heaters, biomass stoves and boilers) in lieu of the lifetime limitation of the credit amount.
- Includes expenditures for residential energy property such as certain costs associated with installing property (e.g., an electric or natural gas heat pump water heater, an electric or natural gas heat pump, a central air conditioner, etc.) that meet or exceed the highest efficiency tier established by the Consortium for Energy Efficiency; and includes expenditures for home energy audits.
- While the extension of the credit applies to property placed in service after 2021, the other modifications described apply to property placed in service after 2022.
- Extends [section 25D](#) residential energy efficient property (renamed residential clean energy credit) for 11 years through December 31, 2034, and adds qualified battery storage technology as eligible property.
 - 26% credit for property placed in service before January 1, 2022.
 - 30% credit for property placed in service after December 31, 2021, and before January 1, 2033.
 - 26% credit for property placed in service after December 31, 2032, and before January 1, 2034.
 - 22% credit for property placed in service after December 31, 2033, and before January 1, 2035.
- Extends and enhances [section 45L](#) new energy efficient home credit.
- The credit is extended to December 31, 2032.
- Increases the credit amount to \$2,500 for new homes that meet certain energy efficiency standards and \$5,000 for new homes that are certified as zero-energy ready homes.
- The credit for multifamily dwelling units is \$500 per unit that meets certain energy efficiency standards and \$1,000 per unit that are certified as zero-energy ready.
- The [section 179D](#) energy efficient commercial building deduction has been enhanced by increasing the maximum deduction amount, determined on a sliding scale of \$2.50 to \$5.00 per square foot (“SF”) (from \$1.80), depending on compliance with certain prevailing wage and apprenticeship requirements.
- Decreases the minimum efficiency requirement to qualify for the deduction to 25% (from 50%).
- Allows taxpayers to elect to take an alternative, parallel deduction for energy efficient lighting, HVAC, and building envelop costs placed into service in connection with a qualified retrofit plan.

- Allows tax-exempt entities to allocate the deduction to the designer of the building or qualified retrofit plan (previously only applicable to certain governmental entities).
- Allows a REIT to reduce its earnings and profits by any deduction taken under section 179D (energy efficient commercial building property) in the year the eligible property is placed in service.
- Modifies the maximum section 179D deduction amounts for taxable years after December 31, 2022, to a base deduction amount of up to \$1/SF which increases to \$5/SF if certain prevailing wage and apprenticeship requirements are met for the 5x multiplier.
- For the base deduction, the applicable dollar value for the deduction is changed to an amount equal to \$0.50/SF 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%.
- For the 5x multiplier, the bonus deduction is changed to an amount equal to \$2.50/SF increased (but not above \$5.00) by \$0.10 for each percentage point by which the total annual energy and power costs for the building are certified to be reduced by a percentage greater than 25%.
- Eliminates the partial allowance if the minimum efficiency standard requirement is not met, provided that certain energy-savings targets established the Treasury are met for one of the distinct categories: interior lighting, heating, cooling, ventilation, and HVAC, or building envelope.

OBSERVATIONS:

- The section 25D residential clean energy credit is increased for property placed in service after 2021 and is significantly extended before starting to phase down after 2032.
- While prior BBBA proposals had included MAGI limitations for the claiming the credit, those limitations are not included in the Act.
- By aligning the section 179D deduction for both earnings and profits and income tax purposes, the provision would make the section 179D deduction more attractive for REITs. Currently, when a REIT claims the section 179D deduction and distributes more than its taxable income in the year of the deduction, the shareholders have dividend income in excess of the REIT's taxable income.

Credit utilization

Direct pay (elective payment)

- Section 6417 is added allowing an applicable entity to make an annual election to be treated as having made a payment against the tax imposed equal to the amount of certain applicable credits ("direct pay") for the taxable year.
- Generally, the election must be made by the applicable entity no later than the due date of the tax return for the taxable year for which the election is made but in no event earlier than 180 days after the date of enactment.
- The payment is generally treated as made on the later of (1) the due date (determined without regard to extensions) of the tax return, or (2) the date that the tax return is filed.

- The credits eligible for this election (“applicable credits”) include:
 - Section 30C alternative fuel vehicle refueling property credit
 - Section 45 renewable electricity production tax credit
 - Section 45Q carbon oxide sequestration credit
 - Section 45U zero-emission nuclear power production credit
 - Section 45V clean hydrogen production credit
 - Section 45W qualified commercial vehicles for a tax-exempt entity
 - Section 45X advanced manufacturing production credit
 - Section 45Y electricity production credit
 - Section 45Z clean fuel production credit
 - Section 48 energy investment tax credit
 - Section 48C qualifying advanced energy project credit
 - Section 48E clean electricity investment credit
- An applicable entity includes:
 - Certain organizations exempt from tax
 - Any State or political subdivision thereof
 - Tennessee Valley Authority
 - Indian tribal governments
 - Alaska Native Corporation
 - Certain electric cooperatives engaged in serving persons in rural areas
- For the 45V clean hydrogen production credit and the 45Q carbon oxide sequestration credit, any taxpayer can elect direct pay for the first five years of the credit period. For the 45X advanced manufacturing credit, any taxpayer can elect direct pay for any consecutive five years within the credit period. During these periods the taxpayer engaged in these tax credit qualified activities is treated as an applicable entity.
- Applicable entities eligible for direct payments are not eligible to transfer the credits under section 6418.
- An additional 20% excessive payment penalty may apply in situations where the amount treated as a payment of tax is an amount that exceeds the amount of the credit which would have otherwise been allowable as a credit (without regard to the general business tax credit limitations) if no election had been made to apply the credit amount as a payment of tax.
- In the case of any applicable credit that is determined with respect to a qualified facility or energy property held directly by such partnership or S corporation, the election must be made by the partnership or S corporation, not at the partner or shareholder level.
- When the election is made by a partnership or S corporation, the partnership or S corporation is treated as having made a payment of tax and the partnership or S corporation will be the entity that is refunded any overpayment of tax.
- Any amount elected to be treatment as a payment of tax by the partnership or S corporation is treated as tax exempt income for purposes of sections [705](#) and [1366](#).

- Any amount treated as tax-exempt income is based on such partner's distributive share of the otherwise allocable credit for each taxable year. Similar rules are expected to apply in the case of S corporations and their shareholders.

OBSERVATIONS:

- Taxable entities that elect direct payment(s) for the first five years for credits under sections 45V and 45Q (and for any five consecutive years for credits under section 45X) may need to plan to monetize the tax credits generated after a five-year period (e.g., via the transferability provisions or tax equity financing).
- The election to apply direct payment(s) results in tax-exempt income that will be counted as positive earnings and profits (E&P) that for corporate taxpayers could result in corporate distributions being taxed as dividends rather than return of capital distributions. Note also that the section 50 basis reduction also has E&P consequences as a non-deductible expenditure. In traditional tax equity deals the generation and allocation of the credits to the partners does not result in a similar E&P result because the credits do not generate tax-exempt income.
- Although the applicable credits eligible for direct pay is extensive, the entities actually entitled to elect direct pay are mostly limited to a specific class of tax-exempt and governmental entities. The final version of the legislation further restricted this group of applicable entities to exclude local governmental entities.
- The ability for an extensive group of tax-exempt entities, state governmental entities and instrumentalities, and rural electric cooperatives to monetize tax credits through the direct pay option unavailable through tax equity structures impaired by the ITC tax-exempt use rules will be welcomed by this class of applicable entities.
- Taxpayers engaged in activities qualifying for the 45V clean hydrogen production credit, the 45Q carbon oxide sequestration credit, and the 45X advanced manufacturing credit will have the greatest flexibility permitting them to “toggle” for a five-year period (which may also be revoked during this period) between monetization through direct pay and claiming the credits directly or through the transferability election in the period no longer treated as an applicable entity.
- Additional consideration should be given to the different financial accounting reporting afforded to refundable credits (sometime even if not elected) which may change the geography on the income statement where this benefit is booked (*i.e.*, “above the line”).

Transferability

- Section 6418 is added allowing an “eligible taxpayer” that is not eligible for the direct pay election to instead elect to transfer all (or any portion specified in the election) of an “eligible credit” to an unrelated taxpayer (within the meaning of section 267(b) or 707(b)(1)).
- With respect to the transfer of the credit for consideration that consideration must be paid in cash, and such consideration is not includible in gross income of the transferor and is not deductible by the transferee.

- With respect to a transferor that is a partnership or S corporation, any amount received as consideration is treated as tax-exempt income for purposes of sections 705 and 1366. Each partner's distributive share of such tax-exempt income is based on such partner's distributive share of the otherwise eligible credit for each taxable year. Similar rules are expected to apply in the case of S corporations and their shareholders.
- The credit is taken into account in the first taxable year of the transferee taxpayer ending with, or after, the taxable year of the transferor with respect to which the credit was determined.
- An election to transfer the credit must be made not later than the due date (including extensions) for the return of tax for the taxable year for which the credit is determined, but in no event earlier than 180 days after the date of enactment of this section.
- The transferee is not able to transfer the credit.
- "Eligible credits" that can be transferred include:
 - Section 30C alternative fuel vehicle refueling property credit
 - Section 45 renewable electricity production tax credit
 - Section 45Q carbon oxide sequestration credit
 - Section 45U zero-emission nuclear power production credit
 - Section 45V clean hydrogen production credit
 - Section 45X advanced manufacturing production credit
 - Section 45Y clean electricity production credit
 - Section 45Z clean fuel production credit
 - Section 48 energy investment credit
 - Section 48C qualifying advanced energy project credit
 - Section 48E clean electricity investment credit
- An eligible taxpayer means a taxpayer that is not an "applicable taxpayer" for purposes of section 6417 (discussed above).
- The eligible taxpayer receives a basis reduction under section 50 as if the eligible taxpayer claimed the credit.
- Credits on progress expenditures are not transferable. Special rules apply in the case of REITs.
- Certain credits are allowed a three-year carryback and a corresponding 22-year carryforward.
- Credits that have been carried back or forward may not be transferred and credits that have been transferred once may not be transferred further.
- An additional 20% penalty may apply in situations involving excessive transferred credits with rules similar to the rules of excessive payments described above under section 6417 (*i.e.*, a 20% penalty based on the amount transferred that exceeds the amount that, without transfer, would have otherwise been allowable to the transferor for such taxable year).

OBSERVATIONS:

- Developers will need to consider whether tax equity transactions will yield better economics than a transfer (or sale) of the tax credits in exchange for cash.
- A market may develop that will determine how much of a discount buyers will be willing to pay for the credits.
- A key consideration is that unlike a tax equity structure, a transfer of the credits will not monetize accelerated tax depreciation.
- The applicability of the passive activity and at-risk rules to the transferee are not addressed in the Act and the implications are unclear at this time.
- For ITC qualifying projects that have a fair market value (“FMV”) higher than cost, the developer will need to figure out structuring alternatives to step-up the basis to FMV. In a tax equity partnership flip structure, the step-up is generally achieved by the developer selling the project to the tax equity partnership. That will be more of a challenge when a third-party tax equity investor is not involved in the transaction and the credits are simply transferred (sold) to a buyer.
- For PTC projects the credit buyer will likely wish to buy the credits as generated (e.g., each year over the 10-year PTC period for wind projects) rather than contribute capital up-front as is standard in tax equity transactions, so the developer will need to figure out other sources of financing to bridge the gap.
- Additionally, the transfer rules provide that the consideration paid for the credits is not tax deductible. In tax equity structures the tax equity investor contributions result in tax benefits. Due to the 50% basis reduction under section 50, the tax equity investor in an ITC tax-equity deal can only generally benefit from a 50% tax deduction for the value of the ITCs allocated to it, while in a PTC tax-equity deal there is no basis reduction.
- When the American Recovery and Reinvestment Act of 2009 section 1603 grant in lieu of tax credits existed, some grant applicants elected to enter into tax equity partnerships in order to monetize the accelerated tax depreciation and also due to the fact that the receipt of the section 1603 grant resulted in tax-exempt income to the partnership. Similar to those rules, the consideration paid by the transferee under the transfer rules would result in tax-exempt income that in a tax equity partnership would increase the tax equity investor’s basis in the partnership to the extent that the investor is allocated the tax-exempt income, with a decrease to the partner’s basis for non-deductible expenditures (e.g., a section 50 basis reduction). For PTC property there is no basis reduction and for ITC energy property there is only a 50% basis reduction, so there is the potential for a portion of the net basis increase to be allocated to the tax equity investor, which would allow the investor to benefit within the tax equity deal economics.
- Corporate transferors should consider that the tax-exempt income generated from a transfer (sale) of the credits to a transferee will be counted as positive E&P (earnings and profits) that could result in corporate distributions being taxed as dividends rather than return of capital distributions. Note also that the section 50 basis reduction also has E&P consequences as a non-deductible expenditure. In a traditional tax equity deal the generation and allocation of the credits to the partners does not result in a similar E&P result because the credits do not generate tax-exempt income if they are not transferred (sold) to a transferee.

- Many have debated whether recapture risk for ITCs transferred to a transferee remains with the transferor or passes to the transferee. The final version of the legislation added a notification requirement that requires the transferor to notify the transferee of such occurrence under section 50(a)(1) while the transferee is required to notify the transferor of “any increase in tax (or adjustment in carrybacks or carryovers) determined under [section 50] subsection (a).” This notification requirement may be interpreted as meaning that the recapture risk and income tax liability owed as a result of recapture is born by the transferee but is determined based on the continued qualified use and ownership of the ITC property in the hands of the transferor. As a result, the transferor is required to notify the transferee if it has engaged in a recapture event for which it must notify the transferee of such occurrence. Once the transferee is notified and presumably after it has adjusted the credit amount claimed due to such occurrence, and the transferee makes notification to the transferor of the recapture amount. This same amount may be restored as a basis adjustment in the ITC property by the transferor under section 50(c)(2). Additional guidance will address the form and manner in which these notification requirements will be accomplished.
- The passage of the liability to remit tax based on the recapture risk is likely to result in indemnities sought by the transferee from the transferor, and in some cases, perhaps even the purchase of tax credit insurance to backstop the transferor’s wherewithal to make good on this indemnity.
- The transfer rules provide that there is a 20% penalty for excessive payments, so there is increased tax credit eligible basis risk that will need to be considered. Presumably the transferee will be indemnified by the transferor for both a loss of the tax credit upon an IRS challenge and for the 20% penalty. Well-capitalized transferors that can back the indemnities (or transferors that buy insurance) may have an easier time finding credit buyers and will take less of a haircut on the price paid by the buyers.
- The proposed corporate AMT equal to 15% of adjusted financial statement income is based on the net income or loss of a taxpayer set forth on the taxpayer’s applicable financial statements, adjusted as provided in section 56A. The adjustment to disregard federal income taxes does not address section 6417 direct payments or section 6418 transfers. But there is a separate adjustment to appropriately adjust net income or loss to disregard any amount treated as a payment against tax pursuant to a section 6417 direct pay election. However, there is not a specific adjustment addressing section 6418 transfers.
- Additional consideration should be given to the different financial accounting reporting afforded transferable credits (sometime even if not elected and transferred) which may change the geography on the income statement where this benefit it booked (*i.e.*, “above the line”).

Three-year credit carryback and 22-year carryforward

- Modifies section 39(a) to extend the carryback period for applicable credits defined under section 6417(b) from one year to three years, and the corresponding carryforward from 20 to 22 years for tax years beginning after 2022.
- The applicable credits include:
 - Section 30C alternative fuel vehicle refueling property credit
 - Section 45(a) renewable electricity production tax credit

- Section 45Q carbon oxide sequestration credit
- Section 45U zero-emission nuclear power production credit
- Section 45V clean hydrogen production credit
- Section 45W qualified commercial vehicles for a tax-exempt entity
- Section 45X advanced manufacturing production credit
- Section 45Y electricity production credit
- Section 45Z clean fuel production credit
- Section 48 energy investment tax credit
- Section 48C qualifying advanced energy project credit
- Section 48E clean electricity investment credit

OBSERVATIONS:

- General business credits (“GBCs”) typically have a one-year carryback and 20-year carryforward. The only other credit that has a special carryback provision is the section 43 marginal oil and gas well production credit with a five-year carryback. The three-year carryback for the applicable credits will allow taxpayers more opportunity to monetize the credits.
- The three-year carryback and 22-year carryforward provisions continue to apply when such credits are transferred by an eligible entity to the transferee under section 6418.

Corporate alternative minimum tax

- Refer to our [US International Tax Alert—Corporate AMT Included in Inflation Reduction Act of 2022](#) released on August 10, 2022.
- The corporate AMT regime is similar to the corporate profits minimum tax that was incorporated into the BBBA considered by Congress last year.
- As with the BBBA provisions, the corporate AMT regime would apply only to certain large “*applicable corporations*” and would be computed as an add-on federal income tax under section 55 to the extent that (1) 15% of the corporation’s *adjusted financial statement income* (“AFSI”)—generally meaning the net income or loss as set forth on the taxpayer’s applicable financial statement (“AFS”) as defined in section 451(b)(3), but with certain adjustments (summarized below) and reduced by the “*corporate AMT foreign tax credit*” (defined in new section 59(l))—exceeds (2) its regular tax liability (plus any BEAT liability) owed for the taxable year. An *applicable* corporation is any corporation other than those with a \$1 billion average annual AFSI test applied based on a three-year period with the relevant taxable year.
- In the case of a foreign-parented multinational group, the \$1 billion three-year average annual AFSI requirement is determined by aggregating the AFSI for all members of the foreign-parented multinational group in which the applicable corporation is a member. However, if the foreign-parented multinational group meets this \$1 billion requirement, a domestic corporation (or foreign corporation with a US trade or business) that is a member of that group is not treated as an applicable corporation unless it meets an additional \$100 million threshold, determined without regard to the expanded AFSI rule relevant for purposes of determining whether the \$1 billion threshold is met.

- To apply the \$1 billion (and \$100 million) AFSI tests, so-called “*aggregation rules*” contained in current-law [sections 52\(a\) and \(b\)](#) would apply—which likewise is the case with many current-law federal tax credits—and a reference to any corporation includes a reference to a “predecessor.”
- The adjustments enumerated in new section 56A would include adjustments to the net income or loss reported on the taxpayer’s AFS for:
 - Situations where the taxable year does not align with the AFS reporting period
 - Special rules for consolidated financial statements or consolidated tax returns
 - Treatment of certain financial statement income reported by partnerships
 - Adjustments for certain dividends and items of foreign income related to CFCs or DREs
 - Adjustments to disregard certain income, war profits, or excess profits taxes imposed by the United States, its possessions, or any other country which are otherwise taken into account directly or indirectly on the taxpayer’s AFS (except if the taxpayer does not choose the benefits of section 901)
 - Special rules for certain cooperative
 - Special rules for Alaska Native Corporations
 - Adjustments to disregard certain tax refunds attributable to tax credits
 - Adjustments to reduce AFSI by depreciation deductions under section 167 with respect to property to which section 168 applies
 - Certain other items, including adjustments with respect to defined benefit pension plans, tax-exempt organizations, and adjustments that the Secretary of the Treasury deems necessary to carry out the purposes of corporate AMT regime (e.g., to prevent omissions or duplications of any item).
- As under the rules applicable to the regular corporate income tax, AFSI may be reduced by financial statement net operating losses, not to exceed 80% of AFSI determined before taking into account such net operating losses. Financial statement net operating losses are determined by taking into account adjusted financial statement losses for taxable years ending after December 31, 2019.
- With respect to general business credits, the Act would modify section 38(c) so that, in the case of a corporation, the total credits allowed to be claimed for a taxable year will be limited to the excess (if any) of the taxpayer’s “*net income tax*” (meaning the regular tax liability plus any corporate AMT liability imposed) over 25% of such tax as exceeds \$25,000.
- In addition, the rules governing AMT credits provided for by section 53(e) would be modified so that an AMT liability imposed on an applicable corporation for a year beginning after December 31, 2022, will result in a carryforward credit allowed to be used to offset the taxpayer’s regular tax liability (reduced first by any foreign tax and/or general business credit) and any BEAT liability otherwise owed in a future year, but not below the amount of the taxpayer’s so-called “*tentative minimum tax*” owed for such future year. (That means, in the case of an applicable corporation, 15% of the corporation’s adjusted AFSI in excess of its AMT foreign tax credit for that future taxable year). In other words, utilization of AMT credits to offset future regular tax and/or BEAT liability otherwise owed will be limited so that the credits cannot actually create an AMT liability in a future year (similar to the limitation contained in old section 53(c) governing the corporate AMT credits prior to 2018).
- The corporate AMT is applicable for taxable years beginning after December 31, 2022.

OBSERVATIONS:

- Accordingly, it appears that GBCs (regardless of whether they are “*specified credits*” described in section 38(c)(4)) will generally be allowed to offset up to 75% of the sum of a corporation’s regular tax plus any AMT liability otherwise owed for a taxable year beginning after December 31, 2022.
- It should be noted that the Act does not contain a conforming amendment, as did the BBBA considered by Congress last year, clarifying that “*net income tax*” for section 38(c) includes the sum of the regular tax and corporate AMT liability, plus any BEAT liability imposed on the corporation under section 59A.
- In the adjustments under section 56A, it should be noted that certain of these adjustments do not apply when determining an entity’s status as an “*applicable corporation*” but only when calculating the “*adjusted financial statement income*” of an entity already determined to be an applicable corporation. See new sections 59(k)(1)(D) and 59(k)(2)(A).
- The Act directs the Secretary to issue guidance as may be necessary and appropriate to provide for the proper treatment of current and deferred taxes for purposes of this paragraph, including the time at which such taxes are properly taken into account.
- The Act substitutes tax depreciation for book depreciation. The provision provides Treasury authority to identify any other adjustments in order to provide that property is accounted for in the same manner as it is reported for federal income tax purposes.
- The adjustment for depreciation refers to the amount allowed as a deduction under section 167, with respect to property depreciated under section 168. Although the statute does not specifically address depreciation that is capitalized under section 263A and recovered through cost of goods sold, it is likely that such depreciation will be included under this provision, similar to the final regulations under a similar provision in section 163(j). However, because not specifically addressed by the statute, further guidance may be necessary to make this clear.
- The statute does not specifically address how future gains or losses on the disposition of property will be taken into account in computing AFSI. A similar issue was addressed by the final section 163(j) regulations, and it is likely that Treasury will provide similar rules for computing AFSI. However, here again, because not specifically addressed by the statute, further guidance is likely necessary.
- The provisions that provide for the use of tax depreciation rather than book depreciation in the calculation of adjusted financial statement income may permit some large corporate taxpayers to continue to invest in tax equity deals that monetize accelerated tax depreciation.
- Amounts attributable to elections for direct payment of certain credits. AFSI must be appropriately adjusted to exclude any amount treated as a payment against the tax imposed pursuant to an election under section 48D(d) (relating to semi-conductor chips) or section 6417, to the extent such amount was not otherwise taken into account under the adjustment for federal income taxes.
- The statute does not address the impact of section 6418 transfers on AFSI. While the Act specifically provides that AFSI shall be appropriately adjusted to disregard any amount treated as a payment against the tax imposed by Subtitle A pursuant to an election under section 48D(d) or 6417, the Act does not provide a specific adjustment for transferable tax credits that are not eligible for direct refund in computing AFSI.

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