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Navigating the Inflation Reduction Act of 2022: A Practical Guide

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The Inflation Reduction Act of 2022 (IRA) will be a game changer for the energy industry. This guide focuses on those issues of particular significance to the energy industry; it is not intended to be comprehensive. Highlights include:

- Extending the ITC and PTC for projects beginning construction through 2024, and removal of the phasedown.
- Expanding the PTC to include solar.
- Expanding the ITC to include energy storage projects.
- Adopting a base/bonus rate structure for many credits under which the bonus rate requires satisfaction of prevailing wage and apprenticeship requirements.
- Adopting additional credit amounts for domestic content, energy communities, and low-income communities.
- Adding direct payment (for nontaxpayers and, in a few cases, taxpayers) and transferability (for taxpayers) in lieu of claiming nonrefundable credits.
- Extending the Section 45Q credit for carbon capture and sequestration, including a variety of rules that liberalize qualification.
- Adopting the technology-neutral clean energy ITC (CEITC) and clean energy PTC (CEPTC) for projects placed in service after 2024.
- Adopting a corporate minimum tax on "book profits," but with rules allowing depreciation to reduce applicable AMT income and clean energy credits to reduce AMT liability.
- Adding an ITC and a PTC for clean hydrogen.
- Adding the advanced manufacturing production credit available for, among other things, components of solar, wind, and battery projects.

Further detail on the IRA is provided below. **A summary chart of the provisions in the IRA can be downloaded here.**

PTC and ITC Extensions

The IRA extends the PTC and ITC for most credit-eligible technologies (including wind and solar projects) that begin construction prior to 2024, revives the PTC for solar projects, and expands the ITC to cover standalone energy storage projects. (Special rules apply to geothermal property used to heat or cool structures.)

The PTC rate for most PTC-eligible property, including for wind and solar projects, is 100% of the inflation-adjusted credit amount (2.75 cents per kWh for 2022 after amendments made by the IRA) (PTC Bonus Rate); if

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the prevailing wage and apprenticeship requirements discussed below are satisfied, construction on the project begins before the date that is 60 days after the Secretary publishes guidance with respect to such requirements, or the applicable project has a maximum net output of less than 1 MW(ac). Accordingly, the PTC Bonus Rate restores the PTC to pre-phasedown levels.

The ITC rate for most ITC-eligible property, including for wind and solar projects, is 30% of the basis of qualified energy property (ITC Bonus Rate); if the prevailing wage and apprenticeship requirements discussed below are satisfied, construction on the project begins before the date that is 60 days after the Secretary publishes guidance with respect to such requirements, or the applicable project has a maximum net output of less than 1 MW(ac). Accordingly, the ITC Bonus Rate restores the ITC to pre-phasedown levels. The IRA also expands the 30% ITC to certain microgrid controller and qualified biogas property, as well as to combined heat and power system property and geothermal property used to heat or cool structures, which formerly received only a 10% ITC.

Projects that do not satisfy the prevailing wage and apprenticeship requirements or other conditions described above are eligible for a base rate equal to 20% of the applicable PTC Bonus Rate or ITC Bonus Rate.

The IRA changes the rules governing whether the PTC and ITC are reduced by certain forms of government support. Under prior law, the PTC was, but the ITC was not, reduced by grants, subsidized energy financing, tax-exempt bond proceeds, and other credits. Under the IRA, both PTCs and ITCs would be reduced only by tax-exempt bond proceeds, and the maximum reduction would be 15%. This amendment is effective for facilities and property that begin construction after the enactment of the IRA.

The implementation of the PTC Bonus Rate and the ITC Bonus Rate generally applies to projects placed in service after December 31, 2021. Accordingly, projects placed in service in 2021 will be subject to prior law (*e.g.,* the 60% PTC for wind projects that began construction in 2020 or 2021, and the 26% ITC for solar projects that began construction in 2020 or 2021), while projects placed in service in 2022 will be eligible for the PTC Bonus Rate and the ITC Bonus Rate. However, the enhancements to the PTC rate and ITC rate for domestic content, low-income communities, and energy communities, discussed below, apply only to projects placed in service after December 31, 2022.

Observations

- Projects will not be subject to the prevailing wage and apprenticeship requirements if they have begun construction before the date that is 60 days after the Secretary publishes guidance with respect to such requirements. Thus, certain projects placed in service in 2022, including projects already placed in service prior to enactment, can qualify for the PTC Bonus Rate or the ITC Bonus Rate without meeting the prevailing wage and apprenticeship requirements.
- Due to the possibility of credit enhancements, credit rates for certain projects may be higher if they are placed in service in 2023 than they would be if placed in service in 2022.

Standalone Storage and Interconnection Property

The IRA expands the full 30% ITC to cover qualifying energy storage technologies, broadly defined to include (1) any property that receives, stores, and delivers energy for conversion to electricity (or, in the case of hydrogen storage, to store energy) and has a nameplate capacity of at least 5 kilowatt hours, excluding property primarily

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used in transportation and not for the production of electricity, and (2) thermal energy storage property, a system that stores thermal energy used in a heating, ventilation, or air conditioning system.

The IRA expands Section 7701(e)(3) to cover standalone energy storage facilities. That section provides a safe harbor under which certain service contracts (including PPAs, capacity agreements, and other power contracts) will not be recharacterized as leases.

Finally, the IRA expands the 30% ITC to cover amounts paid or incurred for qualified interconnection property in connection with the installation of an otherwise ITC-eligible project that has a capacity of 5 MW(ac) or less. Qualified interconnection property includes tangible property that is part of an addition, modification, or upgrade to a transmission or distribution system to accommodate interconnection, which is constructed, reconstructed, erected, or financed by a taxpayer and originally used by a utility under an interconnection agreement.

These changes to the ITC generally apply to standalone storage projects and interconnection property placed in service after December 31, 2022.

Observations

- Under current law, energy storage property can qualify for the ITC only if it is part of an otherwise ITC-eligible project (typically solar or wind) and certain other requirements are met. These requirements presumably would continue to apply to energy storage property placed in service prior to 2023. Going forward, the ITC for standalone energy projects will be a huge benefit for the development of such projects.
- There may be complexities associated with the application of the ITC to co-located generation and energy storage projects, including whether the generation project can claim the PTC if the storage project claims the ITC. Congressional intent suggests this works, but clarification would be welcome.
- The expansion of the Section 7701(e)(3) safe harbor to energy storage facilities is a welcome development that will provide additional comfort that properly structured battery energy services agreements with governments and tax-exempt entities will not be recharacterized as leases, which would result in loss of the ITC and accelerated depreciation.

Section 45Q Credit

The IRA generally extends the Section 45Q credit to qualified facilities that begin construction prior to 2033. The IRA lowers the minimum amount of carbon oxide that must be captured for the Section 45Q credit to be available (effective post-enactment) and, assuming that prevailing wage and apprenticeship requirements are satisfied, significantly increases the dollar amount of the credit (the Section 45Q Bonus Rate) (effective for projects placed in service after December 31, 2022).

The IRA also introduces a requirement, effective for projects placed in service after December 31, 2022, whereby carbon capture equipment for an “applicable electric generating unit” must have capture design capacity of 75% of “baseline carbon oxide” that would otherwise be released by the facility and includes detailed rules for determining baseline carbon oxide. For an electricity generating facility placed in service between one and three years prior to the beginning of construction of the carbon capture equipment, baseline carbon oxide production is based on the period between the electricity generating facility’s placed in service date and the beginning of construction of the carbon capture equipment; if the electricity generating facility was placed in service more than three years prior, baseline carbon oxide production is determined based on the three highest-emitting years in the

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12-year period preceding the date on which construction of the carbon capture equipment began. A redetermination of baseline carbon oxide production is necessary if modifications (that are chargeable to capital account) of the electricity generating facility result in a significant increase or decrease in emissions.

As explained below, the Section 45Q credit is eligible for 100% direct pay for both tax-exempt entities and nonexempt taxpayers.

Observations:

- The impact of generally available direct pay for the Section 45Q credit on the incipient tax equity market for carbon capture projects remains to be seen. It is possible that some sponsors may choose not to pursue tax equity, but tax equity monetizes depreciation in addition to the credits. Another consideration is the timeframe for when the direct payment from the government can be reasonably expected, which is unclear at this time. As a threshold matter, a taxpayer cannot claim the direct payment until it files its tax return for the year in which the credit is determined, and the statute gives the Secretary wide latitude to "require such information or registration as the Secretary deems necessary… ."

Prevailing Wage and Apprenticeship Requirements

Under the IRA, the PTC Bonus Rate, ITC Bonus Rate, and Section 45Q Bonus Rate are available only if certain prevailing wage and apprenticeship requirements are met. The prevailing wage provisions require that taxpayers ensure that any laborers and mechanics employed by the taxpayer, contractors, and subcontractors be paid prevailing wages during the construction of the applicable project and, in some cases, for the alteration and repair of such project for a defined period after the project is placed in service (generally, the period during which the credits are available for production-based credits and the recapture period for investment-based credits). The apprenticeship provisions require (subject to applicable requirements of the Department of Labor or applicable state agencies) that no fewer than the applicable percentage of total labor hours of construction, alteration, or repair work prior to the project being placed in service be performed by qualified apprentices. The applicable percentage is 10% for projects that begin construction before 2023, 12.5% for projects that begin construction in 2023, and 15% thereafter. In addition, each contractor and subcontractor that employs four or more individuals to perform construction on a project must employ at least one qualified apprentice to perform such work. The IRA provides taxpayers with the ability to cure the failure to satisfy the prevailing wage and apprenticeship requirements through payments to each worker paid below prevailing wage and penalty payments to the Treasury and contains a "good faith effort" exception to include situations where the taxpayer requests qualified apprentices from a registered program and receives no response or the request is denied.

Observations

- Compliance with the prevailing wage and apprenticeship requirements will require planning and cooperation with EPC contractors and O&M providers to ensure that the requirements are satisfied, compliance is verified, and there is adequate credit support. This is especially important for sponsors obtaining third-party financing. Certain contractors and providers may already have mechanisms in place to comply with similar labor requirements, such as union rules or the Davis Bacon Act; in other cases, compliance with the prevailing wage and apprenticeship requirements may involve significant changes to historical labor sourcing practices.

Domestic Content Enhancement

The IRA provides for an increased credit rate for PTC and ITC projects that satisfy domestic content requirements, including the requirement that any steel, iron, or manufactured product, which is a component of the applicable facility (in the case of the PTC) or project (in the case of the ITC) upon completion of construction, must be produced in the United States. Under the IRA, the manufactured products that are components of a facility or project upon completion of construction shall be deemed to have been produced in the United States if not less than 40% (or 20% for offshore wind facilities) of the total costs of all such manufactured products of such facility or project are attributable to manufactured products (including components), which are mined, produced, or manufactured in the United States. The Treasury Secretary can provide exceptions to the domestic content requirements in certain circumstances (*e.g.,* if the requirement results in cost increases of more than 25% or comparable products are not readily available in the United States). Assuming that the prevailing wage and apprenticeship requirements are met, the increase in PTC is 10% of the inflation-adjusted credit amount. In the case of the ITC, assuming that the prevailing wage and apprenticeship requirements are met, the credit increases by 10 percentage points to 40% (*i.e.,* 33% of the credit).

Observations

- Note that the increase in the credit rate for the ITC (33%) is larger in absolute terms than the increase for the PTC (10%).
- Based on the plain language of the IRA, it appears that the domestic content requirement for the ITC is applied on a project-wide level, while the domestic content requirement for the PTC is applied on a facility-by-facility basis (*e.,* turbine-by-turbine for a wind project).
- Additional guidance from the IRS is needed as to whether service costs and other non-PP&E costs, in addition to so-called “hard” costs of PP&E, are included in the domestic content calculation.
- The IRA does not provide explicit guidance as to when, if ever, a subcomponent of a larger item constitutes a “manufactured product” for purposes of the domestic content calculation. This issue is particularly important when examining equipment that is assembled in the United States from numerous parts imported from overseas. While speculative analogies can potentially be drawn to the domestic content rules in other statutes, such as Buy America laws, additional guidance from the IRS is essential.
- Even if prevailing wage and apprenticeship requirements are not met, the domestic content enhancement is still available, albeit on a smaller scale (2 percentage point increase in the ITC rate, and 10% increase in the base PTC rate). Projects not subject to the prevailing wage and apprenticeship requirements for purposes of the PTC Bonus Rate or ITC Bonus Rate are not subject to the requirements for the full domestic content enhancement.
- Compliance with the domestic content requirements will require planning and cooperation with equipment suppliers (and their suppliers) to ensure the requirements are satisfied.

Energy Community Enhancement

The IRA provides for an enhanced ITC and PTC for projects placed in service within an energy community. “Energy community” is defined to include certain brownfield sites; a census tract or any adjacent census tract in which a coal mine has closed after 1999, or a coal-fired electric generating unit has been retired after 2009; and a metropolitan or nonmetropolitan statistical area that (1) at any time after 2009 has had at least 0.17% direct employment or 25% local tax revenues from the extraction, processing, transport, or storage of coal, oil, or natural gas and (2) had an unemployment rate at or above the national average for the previous year, in each case as determined by the Secretary. Assuming the prevailing wage and apprenticeship requirements are met, the amount of any PTC is increased by 10% and the amount of any ITC is increased by 10 percentage points (*i.e.,* to 40% assuming compliance with the prevailing wage and apprenticeship requirements).

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Observations

- Even if prevailing wage and apprenticeship requirements are not met, the energy community enhancement is still available, albeit on a smaller scale (2 percentage point increase in the ITC rate, and 10% increase in the base PTC rate). Projects not subject to the prevailing wage and apprenticeship requirements for purposes of the PTC Bonus Rate or ITC Bonus Rate are not subject to the requirements for the full energy community enhancement.

Low-Income Community Enhancement

The IRA would provide an enhanced ITC for wind and solar projects located in a low-income community and have a nameplate capacity of 5 MW(ac) or less, and for which the Secretary makes an allocation of environmental justice solar capacity limitation. The annual capacity limitation is 1.8 GW beginning in 2023, with rollover of unused allocations.

An additional 10% ITC is available for such projects located in a low-income community (as defined for new markets tax credit purposes) or on tribal land, and an additional 20% ITC is available for such projects that are part of a “qualifying low-income residential building project” or a “low-income economic benefit project.” A project may qualify as part of a low-income residential building project if installed on a residential building that participates in one of several programs listed in the IRA and as part of a low-income economic benefit project if at least 50% of the financial benefits of the electricity produced are provided to households with income of less than 200% of the poverty line or less than 80% of area median income.

Observations

- Even if prevailing wage and apprenticeship requirements are not met, the low-income community enhancement is still available. Projects not subject to the prevailing wage and apprenticeship requirements for purposes of the PTC Bonus Rate or ITC Bonus Rate are not subject to the requirements for the low-income community enhancement.

Direct-Pay Election and Credit Transfer

The IRA provides a direct-pay election in lieu of a nonrefundable credit for tax-exempt organizations, state governments or political subdivisions, Indian tribal governments, Alaska Native Corporations, the Tennessee Valley Authority, and any corporation operating on a cooperative basis that is engaged in furnishing electricity to rural areas. The election applies to several clean energy-focused credits, including the ITC, PTC, Section 45Q credit, and advanced manufacturing production credit. Under the IRA, those making the election are treated as having made a tax payment in the amount of the credit. The direct-pay election is available to taxpaying entities only in limited situations, including with respect to the clean hydrogen production credit, the Section 45Q credit, and the advanced manufacturing production credit.

For the ITC and the PTC, the direct payment amount is determined by multiplying the credit by an applicable percentage. The applicable percentage is 100% if the project satisfies the domestic content requirement (or the requirement is deemed satisfied) or has a maximum net output of less than 1 MW(ac). For all other projects, the applicable percentage is 100% if construction begins before 2024 and 90% if the construction begins in 2024.

The IRA also includes a provision whereby the clean energy-focused credits discussed above can be transferred by a taxpayer (*i.e.,* an entity not eligible for the direct-pay election) to an unrelated taxpayer in exchange for cash. The credit must be transferred by the due date of the tax return for the taxable year in which the credit is determined, and a credit can be transferred only once. Specific procedures apply for notifying the credit transferee of recapture events.

Observations

- The availability of the direct-pay election to tax-exempt persons means that pension funds, college endowments, tribes, and states and municipalities can now make investments in energy projects on a more equal footing. Investment funds with tax-exempt investors also may be able to take advantage of direct pay under certain conditions.
- Although the statute is not clear as it could be, it appears that the buyer of the credit is on the hook if the IRS determines the credits should be disallowed or recaptured.
- Direct pay and credit transferability will give sponsors a choice as to whether to pursue traditional tax equity financing or to "go it alone," perhaps with traditional debt financing. On the upside, going it alone might simplify the ownership structure and reduce the overall cost of financing (setting aside the tax benefits). However, neither the direct-pay election nor the transfer of tax credits would monetize the depreciation, and it could be more difficult to achieve a full basis step-up (and therefore unlock the full credit value) in an ITC deal. It is also unclear when the economic benefit of the credits will be realized. There is currently no explicitly guaranteed date by which the government has committed to provide cash for direct payments, and the statutes give the Secretary wide latitude to "require such information or registration as the Secretary deems necessary …" as a condition of direct payments and credit transfers. Moreover, the market price for transferred tax credits, as well as the market risk allocation with respect to credit eligibility and recapture, are yet to be determined. Accordingly, we do not expect to see widespread use of direct pay or transferability until the IRS has issued guidance. Furthermore, even after guidance is issued, we expect to see a variety of different sponsor approaches to monetization of tax benefits, including traditional tax equity.
- The interaction of the credit transfer rules with other tax regimes, including the at-risk and passive activity rules, is an area in which additional IRS guidance may be needed.

Extension of Credit Carryback Period

Under the IRA, the one-year carryback for clean energy credits (the same list of credits eligible for direct pay and transferability) is extended to three years.

Clean Electricity Production Credit and Clean Electricity Investment Credit

The IRA adds broad emissions-based, technology-neutral credits that are available for projects used for the generation of electricity with a greenhouse gas emissions rate at or below zero that are placed in service after the expiration of the PTC and ITC (*i.e.,* after December 31, 2024), or existing projects to the extent construction of a new unit or addition of capacity begins after such date.

Assuming the prevailing wage and apprenticeship requirements are satisfied, taxpayers can choose between a 10-year production tax credit (CEPTC) or 30% investment tax credit (CEITC). The CEPTC would be calculated similarly to the PTC.

Each of the CEPTC and CEITC will phase down to 75% of the applicable credit amount for projects that begin

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construction in the second calendar year after the later of December 31, 2032, or the year in which the U.S. electric power sector emits 75% less carbon than in 2022, and then to 50% for projects that begin construction the following year, with no credits available for projects that begin construction thereafter.

The CEPTC and CEITC generally incorporate increases and decreases similar to the PTC and ITC, respectively, with respect to prevailing wage and apprenticeship requirements, domestic content, and energy and low-income communities, with a handful of differences: In the absence of exceptions for domestic content and maximum net output less than 1 MW, direct pay for the CEPTC and CEITC phases down to 85% (not 90%) of the credit for projects that begin construction in 2025 and is thereafter eliminated, and the CEPTC has higher domestic content threshold percentages than the PTC (in the case of projects other than offshore wind projects, 40% if construction begins before 2025, 45% if construction begins in 2025, 50% if construction begins in 2026, and 55% thereafter; in the case of offshore wind facilities, 20% if construction begins before 2025, 27.5% if construction begins in 2025, 35% if construction begins in 2026, 45% if construction begins in 2027, and 55% thereafter).

Observations

- Similar to the PTC and ITC, based upon the statutory language, the domestic content requirement for the CEITC appears to be applied on a project level, while the domestic content requirement for the CEPTC appears to be applied on a facility-by-facility basis.

Corporate Alternative Minimum Tax

The IRA adds a 15% alternative minimum tax (AMT) on corporate profits that would apply to corporations that have average annual adjusted financial statement income in excess of $1 billion over a three-year period (with additional rules for applying the tax to foreign-parented multinationals). Adjusted financial statement income is the net income or loss set forth on the corporation’s applicable financial statement, subject to adjustments, rather than its tax books.

The corporate AMT is offset by general business credits under Section 38, such as the ITC and PTC, subject to limitations (*e.g.,* Section 38 credits may offset only up to 75% of the sum of a corporation’s normal income tax and alternative income tax that exceeds $25,000). In addition, annual adjusted financial statement income is reduced by depreciation expense under Section 167 (for property to which Section 168 applies) with book depreciation added back, and it is adjusted to take into account any other item specified by the Secretary to provide that such property is accounted for in the same manner as for U.S. federal income tax purposes.

Observations

- It remains to be seen to what extent tax equity investors could be affected by the corporate AMT. The proposal could implicate tax law change provisions in tax equity documents. However, allowing annual adjusted financial statement income to be reduced by MACRS depreciation deductions, in addition to allowing the corporate AMT to be offset by general business credits under Section 38 (such as the ITC and PTC), should help ensure that even taxpayers subject to the corporate AMT will be able to monetize the key tax benefits of renewable energy investments.

Clean Hydrogen Credits

The IRA adds a new production credit equal to the amount of clean hydrogen (*i.e.,* hydrogen produced through a process with a lifecycle greenhouse gas emissions rate of 4 kilograms of CO_2e per kilogram of hydrogen or less) produced by a taxpayer at a qualified clean hydrogen production facility during the 10-year period beginning on the date such facility was originally placed in service, multiplied by a percentage ranging from 20% to 100% (depending on the lifecycle greenhouse gas emissions rate of the process giving rise to the clean hydrogen). The credit is effective for facilities placed in service after December 31, 2022.

To qualify for the credit, hydrogen generally must be independently verified as having been produced in the United States in the ordinary course of a trade or business of the taxpayer and for sale or use. A qualified clean hydrogen production facility must be owned by the taxpayer and must begin construction before January 1, 2033. The clean hydrogen production credit is not allowed for hydrogen production at a facility that includes carbon capture equipment for which a Section 45Q credit is or has been allowed. The credit is inflation-adjusted and generally incorporates increases and decreases to the PTC with respect to prevailing wage and apprenticeship requirements and tax-exempt bond proceeds, but no enhancements to the credit are available with respect to domestic content or energy communities. An election to receive an ITC instead of the clean hydrogen production credit (equal to 6% to 30% of eligible basis, depending on the emissions rate of the production process, assuming the prevailing wage and apprenticeship requirements are satisfied) is also available. The clean hydrogen production credit is eligible for 100% direct pay for both tax-exempt entities and nonexempt taxpayers.

Advanced Manufacturing Production Credit

The IRA adds a new advanced manufacturing production credit with respect to each eligible component produced by the taxpayer and sold to an unrelated person for the taxable year in the taxpayer's trade or business. Eligible components include specific components of solar, wind, and battery projects, such as blades, various types of inverters, battery cells, photovoltaic wafers, and solar modules, as well as certain critical minerals; each eligible component is accorded a specified dollar amount of credit. The credit phases down for most eligible components to 75% for sales in 2030, 50% for sales in 2031, 25% for sales in 2032, and 0% thereafter. The credit is effective for components produced and sold after December 31, 2022.

The taxpayer may elect to treat a sale of components to a related person as a sale to an unrelated person, provided that the Secretary may require information or registration for purposes of preventing duplication, fraud, or any improper or excessive credit amount.

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