

Energy Overview

The United States is one of the largest producers and consumers of energy in the world—the largest producer and consumer of oil and natural gas and the second largest producer and consumer of electricity.¹ Its primary sources of energy include fossil fuels, including petroleum, natural gas, and coal; nuclear energy; and renewable sources of energy.

As of 2023, petroleum accounted for a 38% share of total U.S. energy consumption, with natural gas, renewable energy, coal, and nuclear electric power accounting for approximately 36%, 9%, 9%, and 9%, respectively.² In recent years, renewable energy production and consumption in the United States have increased greatly and reached record highs, with the increase largely attributable to increases in solar and wind energy production. Biomass energy production and consumption and geothermal energy consumption have also seen notable increases.

The U.S. has introduced major energy and climate policy reforms aimed at strengthening clean energy manufacturing. In 2021, the United States announced its long-term strategy for achieving its ultimate goal of net-zero emissions by no later than 2050.³ The U.S. government has likewise announced its goals of achieving 100% carbon-free electricity by 2035.⁴ To achieve these goals, the U.S. has emphasized the importance of decarbonizing electricity production, decarbonizing consumption by electrifying end uses and switching to other clean fuels, reducing energy waste, reducing non-CO₂ emissions, and increasing carbon sequestration efforts.

Throughout the 20th century, the U.S. created various incentives to encourage the development of certain energy sources, such as oil and gas. In recent years, these incentives have shifted to encourage the development of low carbon energy sources, often called “green” energy sources. The most significant and far-reaching collection of such incentives are contained in the Inflation Reduction Act (the “IRA”), which provides tax credits for green technologies. The IRA’s adoption by industry stakeholders has been rapid, transformative and capital-intensive.

1 U.S. Energy Information Administration, Frequently Asked Questions (last visited Sep. 30, 2024), available at <https://www.eia.gov/tools/faqs/faq.php?id=709&t=6>; Statista, Production of Natural Gas Worldwide in 2023, by Country (last visited Sep. 30, 2024), available at <https://www.statista.com/statistics/264101/world-natural-gas-production-by-country/>; Statista, Natural Gas Consumption Worldwide in 2023, by Country (last visited Sep. 30, 2024), available at <https://www.statista.com/statistics/265407/world-natural-gas-consumption-by-country/>; Statista, Primary Energy Consumption Worldwide in 2023, by Country (last visited Sep. 30, 2024), available at <https://www.statista.com/statistics/263455/primary-energy-consumption-of-selected-countries/>; Statista, Leading Countries in Electricity Generation Worldwide in 2023 (last visited Sep. 30, 2024), available at <https://www.statista.com/statistics/1263669/electricity-generation-worldwide-country/>.

Tax Overview

The U.S.⁵ imposes a federal income tax on the worldwide taxable income of persons (including corporations) that are citizens or residents of the U.S. The federal income tax also applies to non-residents on their income that is effectively connected with a trade or business in the U.S. (“ECI”) and other U.S. source income, including fixed or determinable annual or periodic income (“FDAP” income), such as interest, dividends, rents and royalties. While non-U.S. residents are generally not taxed on capital gains from the sale of property, they are subject to tax on the disposition of U.S. real property interests (which is treated as ECI and subject to withholding at 15% of the total amount realized). In addition, most states impose a state income tax on income calculated for federal income tax purposes with some adjustments.

FDAP income received by non-U.S. persons is generally subject to withholding tax at a rate of 30%, which may be reduced or eliminated by applicable double-tax treaties. With respect to the U.S. federal income tax treatment of interest income, for a non-U.S. person who is not a 10% shareholder (a holder that owns less than 10% of a corporation by vote or less than 10% of the capital or profits interest in a partnership), the portfolio interest exemption generally exempts the interest income from U.S. federal income tax.

For individuals, the income tax rate is progressive, with the maximum rate of 37% currently (which is set to increase to 39.6% starting in 2026). For individuals, capital gain is taxed at a preferential rate of up to 20%. For corporations, the income tax rate is 21% and there is no preferential capital gains rate. Individuals and corporations can generally use capital losses to offset capital gains only, and unused capital losses can be carried back three years and forward five years.

Net operating losses can generally be carried forward indefinitely to offset taxable income in future taxable years. However, this reduction is limited to 80% of taxable income in each taxable year.

For U.S. federal income tax purposes, certain business entities (such as corporations) can only be classified as a corporation (that is, those entities are subject to corporate income tax), i.e., per se corporations. Other entities with multiple owners (such as limited liability companies or state law partnerships) may elect to be classified as a corporation or a partnership. A partnership is a fiscally transparent entity not subject to tax: a partnership computes its income, and its partners include in their income their allocable share of the partnership’s income. If any entity that is not a per-se corporation has one

2 U.S. Energy Information Administration, U.S. Energy Facts Explained (last visited September 30, 2024), available at <https://www.eia.gov/energyexplained/us-energy-facts/>.

3 U.S. Department of State and the Executive Office of the President, the Long-Term Strategy of the United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050 (Nov. 2021).

4 U.S. Department of Energy, On the Path to 100% Clean Electricity (May 2023).

5 States and localities may also impose income and other taxes, which may be significant.

owner, it may elect to be classified as a corporation or as an entity disregarded as separate from its owner.

The U.S. has generally adopted the arm's length standard for purposes of transfer pricing.

Taxation of Energy Projects

There are many potential levers through which a governing body might encourage or discourage certain behaviors. In the U.S., tax law is one such lever and it has guided the adoption and development of U.S. energy sources since the early 20th century. The deduction for intangible drilling costs, for example, somewhat mitigated the after-tax financial risks of searching for oil and gas deposits. Similarly, the "percentage depletion" method allowed for often significant deductions as oil deposits were depleted. In 1962, the U.S. government also introduced tax credits, which are distinct from deductions in that they are a reduction of income tax liability whereas a deduction is a reduction of taxable income. The earliest iterations of tax credits came in the form of so-called investment tax credits ("ITC") which encouraged investment into certain types of assets. In the 1990s, another type of tax credit, the production tax credit ("PTC") was introduced, based on an asset's production as opposed to its associated capital commitment. Both the ITC and the PTC have survived in one form or another through to the present day. Throughout the years, the types of assets and behaviors favored by tax credits have changed. However, over the course of the 21st century, U.S. tax credits have been increasingly used to favor the development of green technologies.

Tax Credits: In 2022, the U.S. enacted two bills to accelerate its decarbonization and accomplish its net zero commitments: (1) the Infrastructure Investment and Jobs Act and (2) the aforementioned IRA. The broadest piece of clean energy legislation in U.S. history, the IRA is projected to grant about \$663 billion of energy tax incentives over ten years.⁶ There are many different types of energy-related credits, and several noteworthy examples are described below.

❖ **Electricity Generation:** The IRA included credits for clean electricity generation, such as solar, wind, and nuclear power generation. There are two types of credits for which taxpayers may be eligible, although a taxpayer can only claim one of them in connection with a particular project. PTCs generally provide 0.3 cents per kWh of electricity produced and sold to an unrelated third party (this amount is annually adjusted for inflation). ITCs for such eligible energy projects generally provide 6% of the eligible cost of the facilities. With respect to projects that fulfill the so-called prevailing wage and apprenticeship ("PW&A") requirements, these credit amounts can be multiplied by 5, leading to a rate of 1.5 cents per kWh (inflation adjustment factors may also apply to increase this amount) for PTCs and 30% of eligible costs for ITCs. 2025 marks a shift in the incentive landscape whereby qualified facilities must have a greenhouse gas emissions

rate of not greater than zero in order to be credit eligible (though certain technologies such as wind and solar are proposed to be whitelisted going forward with respect to this requirement). In addition to the base credit amounts, taxpayers may receive additional credits for being constructed with sufficient quantities of domestically-sourced materials and components or being located in a region designated as an "energy community" (e.g. a brownfield).

- ❖ **Energy Storage:** The IRA introduced an ITC for standalone energy storage, at a rate of 6% of the eligible costs (or 30% if the PW&A requirements are satisfied) with the possibility of additional credits. Prior to the IRA such projects were only credit-eligible to the extent that they were deemed, by virtue of their energy source, to be a component of otherwise credit-eligible projects, such as wind and solar facilities. Under the current credit regime and going forward for the credit regimes in place for 2025 and later, energy storage is its own credit-eligible class of projects and is not limited to electric batteries, but can also include, in some cases, thermal and hydrogen storage.
- ❖ **Clean Vehicles:** The IRA enacted or amended vehicle-specific credits, including the clean vehicle credit, commercial clean vehicle credit, and previously owned clean vehicle credit. The clean vehicle credit of \$7,500 requires that minerals and battery components be sourced from certain countries, and thus, the credit promotes onshoring and "friend-shoring" of EV battery supply chains.
- ❖ **Clean Energy Supply Chain:** The advanced manufacturing production credit provides a credit for manufacturing of solar energy, wind energy, and battery components as well as inverters and certain critical minerals. The credit amount varies by eligible component. The amount of incentives available and its constituent calculation can vary widely depending on the type of component manufactured or critical mineral derived. There is also an ITC incentive for 6% of the eligible costs (or 30% if the PW&A requirements are satisfied) for certain manufacturing components that, through their operation or eventual use of created products, result in greenhouse gas emission reductions in the U.S.; however, that incentive is only available by application only. Finally, the aforementioned PW&A requirements as well as the credits for domestic manufacturing have already begun to spur the payment of wages at prevailing rates and increased use of manufacturing in the U.S.
- ❖ **Clean Hydrogen:** The clean hydrogen production credit provides up to \$3 per kg of clean hydrogen produced. The credit amount depends on a lifecycle GHG emissions rate, and the rate must be less than 0.45 kg of CO₂e per kg of hydrogen to receive the maximum

⁶ Joint Committee on Taxation, Estimated Revenue Effects of a Proposal to Repeal Certain Energy Items Contained in the "Inflation Reduction Act" (May 2023).



credit amount. To qualify for the credit, the proposed regulations include additional requirements related to deliverability, temporal matching, and incrementality that many stakeholders believe would make it difficult for a mature hydrogen industry to develop in the U.S. However, it remains to be seen which aspects of the proposed regulations might survive once final regulations are issued.

- ❖ **Carbon Capture:** The carbon capture credit is available for qualified carbon oxide captured using carbon capture equipment. The credit amount (for projects that fulfill PW&A requirements) is \$85 per metric ton for carbon oxide stored in geologic storage and \$60 per metric ton for carbon oxide used as a tertiary injection in certain oil or natural gas recovery projects (these amounts are annually adjusted for inflation).
- ❖ **Clean Fuel:** Clean fuel credits incentivize production of transportation fuel with low emissions (i.e., less than 50 kg of CO_{2e} per mmBtu). The credit amount is up to \$1 per gallon for non-aviation fuel and \$1.75/gallon for aviation fuel.

Tax Credit Monetization: Federal tax credits are typically non-refundable general business credits. Historically, to the extent the owner of project did not have the tax capacity to make use of such tax credits, it might have entered into some variety of so-called “tax equity” arrangements, wherein a special purpose vehicle is effected to facilitate an investment by an entity with tax liability sufficient to make use of the non-refundable credits, as well as the underlying accelerated tax depreciation. Tax equity arrangements are still in frequent use and are expected to be on a go-forward basis. However, the IRA introduced two additional mechanisms for monetizing tax credits: the elective payment election (also known as “direct pay”) and transferability election.

The direct pay election is generally available to certain tax-exempt and governmental entities and allows the entities to receive some or all of the credit amount in cash. However, certain credits are eligible for direct pay, despite not being owned by an entity classified as tax-exempt or similar. That is, a taxpayer may earn the advanced manufacturing production credit, the clean hydrogen production credit, and the carbon capture credit on a direct pay basis for a limited 5 year window at its election.

A transferability election allows taxpayers to sell their tax credits to third parties. Tax credits can be sold only once, meaning a buyer of credits cannot go on to sell credits to another party. Further, tax credit sales can only be in exchange for cash and sales of credits can only be made in a limited time frame that begins at the start of the selling entity’s tax year and ends on the extended tax filing date for that entity. Though new, the tax credit transfer market introduced by the IRA has already generated significant activity: a recent study projects that the credit transferability market will be roughly \$20–25 billion in 2024, and it serves as an important financing tool for project developers.

As the credit monetization opportunities have expanded, credits are frequently monetized through a combination of tax equity and transferability, which, depending on specific characteristics, have come to be called hybrid tax equity or synthetic tax equity.

Debt Financing Considerations: Energy projects are capital intensive, requiring significant initial investments. As a result, project developers must raise a significant amount of money through a combination of equity, debt, and tax equity. While generally allowing a deduction for interest, the U.S. now limits such deduction in numerous ways. For example, a taxpayer can deduct business interest roughly up to the sum of its business interest income, 30% of its EBIT, and certain motor vehicle acquisition indebtedness. In certain circumstances (for example, when the debt-to-equity ratio is very high), debt may be recharacterized as equity. Then, interest may be recharacterized as a distribution on equity and thus cannot be deducted. Further, in cases where a project is owned (either direct or indirect) by closely-held C-corps or individuals, it’s prudent to be sensitive to so-called non-qualified non-recourse financing considerations that can cause a material reduction in incentives available for ITC projects. Also, both ITCs and PTCs can be reduced as a result of tax exempt bond financing regardless of ownership structure. It should also be noted that the market standard is for any tax equity arrangement to not include debt at the project level and instead any debt is typically structured as “backleverage” where financing is held at an entity above the entity that owns the credit-eligible projects.

Indirect Ownership by Tax Exempt Entities: As discussed above, if tax exempt entities directly own or produce credit-eligible property, they may take advantage of direct pay. However, if such entities indirectly own or produce credit-eligible property through pass-through entities (e.g., partnerships), they generally cannot make the direct pay election, largely losing the benefit of tax credits that would otherwise have been available to the extent of tax exempt ownership.

Withholding Tax: Foreign investors must consider the tax implications of receiving dividends or interest from a U.S. entity, including withholding tax and applicable double-tax treaties. If foreign investors are providing intellectual property related to particular technologies, it must also consider similar tax implications applicable to royalties. As noted above, interest, dividends, and royalties are generally subject to a 30% withholding tax, subject to reduction due to double-tax treaties. In addition, withholding may be applied to partnership investment on both operating income and sales proceeds.

Tax on Disposition: Many energy facilities are treated as U.S. real property interests. For example, installed solar and wind energy components integral to power generation affixed to land are real property. As such, foreign investors are generally subject to tax on their capital gain from the sale of an energy facility



or a corporation holding the facility. To avoid such tax, foreign investors may consider setting up a holding company in their country to hold shares of a U.S. entity that owns the facility instead of owning the U.S. entity directly, and selling the shares of the non-U.S. holding company. The investors, however, must consider tax consequences in their own jurisdictions.

Other Tax Issues To Be Considered

Pillar 2 Considerations: The U.S. has not yet adopted OECD Pillar 2, and, based on the political landscape, the U.S. may be unlikely to implement it in the near term. But other countries' adoption of Pillar 2 may have a considerable impact on the clean energy transition in the U.S. For the three direct-pay eligible credits for regular taxpayers, these credits should generally be treated as qualified refundable tax credits (QRTCs) under the GloBE rules. As a result, they will generally increase GloBE income and have a marginal effect on effective tax rates in the U.S.

As noted above, most IRA credits are transferable only one time. Therefore, while the IRA credits will generally be treated as marketable transferable tax credits (MTTC) for sellers, the credits will not be MTTCs for buyers because they cannot resell the credits. As such, sellers can generally treat cash consideration as GloBE income, but buyers must treat the difference between the credit amount and consideration as a reduction in covered taxes, resulting in a significant reduction in effective tax rates. Thus, this non-MTTC treatment may limit the pool of tax credit buyers.

Sales and Use Tax: In addition to state income tax, states generally impose sales and use tax on the sale of tangible personal property. However, there may be relevant exemptions. For example, Texas provides an exemption for the sale of tangible personal property that is used in the production of electricity.

Tax Credit Insurance: Buyers of tax credits and investors in tax equity structures face numerous risks. Certain tax credits may be recaptured, causing a taxpayer to lose a certain percentage of a previously claimed credit. A taxpayer may claim excess credits, leading to certain tax credits to be denied years later. To mitigate these risks, project developers often obtain tax credit insurance. The tax insurance market as it relates to tax credits is relatively new and the terms, dynamics, and pricing of such products is rapidly evolving.

Tariffs: The U.S. plans to increase import duties for many energy-related products from China (e.g., 100% for electric vehicles; 50% for solar cells; and 25% for battery parts, batteries and certain critical minerals).

Other Incentives: Many state and local governments offer tax and non-tax incentives for large investments. For example, companies making significant investments—and thus, contributing to local economic growth—may obtain a property tax abatement for a fixed period and direct cash assistance.

Relevant Experience

Covington advises clients on their significant energy-related investments and tax credit monetization transactions. Drawing on our deep expertise in these areas and working together with top talent in our Energy, Environment, and Public Policy groups, we regularly interact with Congress and relevant government agencies on tax credit matters. Covington has advised on the tax aspects of significant energy projects, including:

- ❖ Cameco Corporation in its strategic partnership with Brookfield Renewable Partners in their \$8.2 billion acquisition of Westinghouse Electric Company.
- ❖ Borrego Solar Systems in the sale of its Renewable Energy Development Business to ECP.
- ❖ LanzaTech NZ in its \$2.2 billion De-SPAC merger with AMCI Acquisition Corp. II.
- ❖ SK Innovation in its \$13 billion joint venture with Ford to manufacture electric vehicle batteries.
- ❖ Cameco Corporation in its acquisition of interests in GE-Hitachi Global Laser Enrichment from GE-Hitachi Nuclear Energy.
- ❖ SK E&S in its \$75 million joint venture investment with Sunrun, a home solar, battery storage, and energy services company.
- ❖ LanzaTech New Zealand Limited in its \$25 million joint venture with Suncor Energy Inc. and Mitsui & Co., Ltd. to spin out LanzaJet, Inc. into a stand-alone entity that will produce sustainable aviation fuel.
- ❖ Tax-efficient structuring of investments by international and domestic clients related to clean energy infrastructure, including tax equity, partnerships and joint ventures, leasing, and other bespoke arrangements.
- ❖ Clients' monetization of tax credits through elective payment and transferability elections and purchase of tax credits to reduce their tax burden, including negotiating insurance policies.

Leo Berwick is a dedicated transactional advisory firm with deep expertise in infrastructure, renewables and energy transition. Leo Berwick provides tax and financial advisory, financial modeling and valuation services. Experience includes:

- ❖ Negotiating and pursuing a wide variety of insurance policies covering across myriad credit-eligible technologies.
- ❖ Advise developers and IPPs on strategies and tactics the monetization of tax credits and incentives, taking into account short-term goals and long-term aspirations.



- ❖ Ares with its strategic partnership with ENGIE for a 2.7 GW portfolio of Renewables and Storage Assets in the U.S.
- ❖ John Laing Group with its acquisition of Duke Energy's equity interest in Pioneer Transmission, LLC.
- ❖ ECP and its co-investors with the acquisition of Atlantica Sustainable Infrastructure Plc.
- ❖ Qualitas Energy with its acquisition of Heelstone Renewable Energy, a leading US utility-scale renewable energy platform.
- ❖ Northleaf Capital Partners on its commitment of \$200mn to EVPassport, an open API-driven electric vehicle charging platform.
- ❖ Manulife Investment Management's \$135 million investment into NineDot Energy, the leading developer of community-scale battery energy storage systems (BESS) in the New York City metropolitan area.
- ❖ Igneo Infrastructure Partners on its acquisition of a majority equity interest in Soltage LLC, an industry leader in the development, financing, and operation of distributed scale solar and storage assets across the US.
- ❖ Amber Infrastructure with its acquisition of 50% interest in GreenGas Colorado, which generates approximately 360,000 MMBtu per year.



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