

Insights

INFLATION REDUCTION ACT EXPANDS SUPPORT FOR NUCLEAR POWER PLANTS

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The Inflation Reduction Act (“IRA”) created new incentives for the generation of electricity from nuclear power plants, supplementing incentive provisions that are currently in place. The primary changes are (i) the adoption of a new 8-year production tax credit (“PTC”) for certain existing nuclear power plants, and (ii) enabling nuclear facilities to qualify under the new technology-neutral zero-emission PTC and investment tax credit (“ITC”) regime that will apply beginning in 2025. Some of the other incentives adopted by the IRA may also support the nuclear industry.

EXISTING INCENTIVES PRIOR TO IRA

The advanced nuclear production tax credit (“Advanced Nuclear PTC”) under Code Section 45J of the Internal Revenue Code (the “Code”), created in the Energy Policy Act of 2005 (the “Energy Policy Act”), provides a 1.8 cents per megawatt-hour (“mWh”) tax credit for the first 8 years an “advanced nuclear power facility” is placed in service and sold to an unrelated person, provided that the plant had not begun construction when the Energy Policy Act was signed into law.

An “advanced nuclear power facility” for purposes of the Advanced Nuclear PTC is any facility owned by the taxpayer which uses nuclear energy to produce electricity and was placed in service after August 8, 2005 and before January 1, 2021.

The Bipartisan Infrastructure Law (“BIL”), enacted in 2021, also provides nuclear credit incentives. Specifically, the Civil Nuclear Credit Program (“CNCP”) created under the BIL allows operators and owners of nuclear reactors to apply for certification to bid on credits to support nuclear facility operations. In order to receive credits under the Department of Energy’s (“DOE”) CNCP, applicants must demonstrate that the nuclear reactor is projected to close for economic reasons and such closure will lead to a rise in air pollutants.

INFLATION REDUCTION ACT INCENTIVES

The IRA recognizes the potential for nuclear power plants to provide a low-carbon source of electricity by both increasing incentives for the production of electricity from certain existing nuclear power plants, and by enabling new nuclear power plants placed in service after December 31, 2024

to participate in the PTC and ITC incentives available for the production of electricity from renewable and other low-carbon sources.

ZERO-EMISSION NUCLEAR POWER PRODUCTION TAX CREDIT

The IRA creates a new zero-emission nuclear power production tax credit (“Zero Emission PTC”) for certain existing nuclear power plants under Section 45U of the Code. Similar to the CNCP, the goal of the Zero Emission PTC is to prevent the decommissioning of existing nuclear power plants. The Zero Emission PTC is available to any “qualified nuclear power facility” for electricity produced and sold from 2024 through 2032. The amount of the credit, which is indexed to inflation, is equal to the amount by which (1) the product of (a) 0.3 cents (adjusted for inflation after 2023) and (b) the kilowatt-hours (“kWh”) of electricity produced by the taxpayer at a qualified nuclear power facility and sold by the taxpayer to an unrelated person during the taxable year exceeds (2) the “reduction amount” for such taxable year. The “reduction amount” is a specific formula that reduces the amount of credit available if the price of power rises above \$25 per mWh. The credit rate is increased by a factor of five (i.e. from 0.3 cents to 1.5 cents per kWh) if certain “prevailing wage requirements” are met with respect to labor used in altering or repairing the facility.

“Qualified nuclear power facilities” which qualify for the Zero Emission PTC are nuclear facilities which are owned by a taxpayer which uses nuclear energy to produce electricity and are not an “advanced nuclear power facility” under the Energy Policy Act. In other words, taxpayers which qualify for the Advanced Nuclear PTC are unable to claim the Zero Emission PTC.

CLEAN ELECTRICITY PRODUCTION TAX CREDIT

For facilities placed in service after December 31, 2024, the IRA replaces the existing PTC under Section 45 of the Code with a technology-neutral “zero emissions” clean electricity production tax credit (“Clean Electricity PTC”) under Section 45Y of the Code. The Clean Electricity PTC is available annually for 10 years to any “qualified facility” with a greenhouse gas emissions rate of no greater than zero. Unlike the existing PTC, nuclear power plants could qualify for the Clean Electricity PTC. The amount of the credit is a specified credit rate, which is adjusted for inflation from 1992, multiplied by the kWh of electricity produced. The base credit rate is 0.3 cents per kWh, and is increased by a factor of five (i.e. to 1.5 cents per kWh) if certain prevailing wage and apprenticeship requirements (the “PWA Requirements”) are met with respect to the construction of the facility. For a more detailed discussion on the PWA Requirements, please see “[*Title of Insight on PWA Requirements*].” The credit rate is also increased by 10 percent (i.e. from 0.3 cents to 0.33 cents, or from 1.5 cents to 1.65 cents, as applicable) if the facility is built in an “energy community” (generally, a brown field site, in communities with higher than average employment or tax revenues attributable to the fossil energy industry, or in the vicinity of a closed coal mine or a retired coal-fired electric generating unit), and is also increased by 10 percent if certain domestic content requirements are met. For a more detailed discussion on the energy communities bonus and the

domestic content bonus, please see “[*Title of Insight on Energy Communities Bonus*]” and “[*Title of Insight on Domestic Content Bonus*],” respectively.

The Clean Electricity PTC is not available to taxpayers who claimed the Zero Emission PTC or the Advanced Nuclear PTC.

CLEAN ELECTRICITY INVESTMENT TAX CREDIT

For facilities placed in service after December 31, 2024, the IRA also replaces the existing ITC under Section 48 of the Code with a technology-neutral “zero emissions” clean electricity investment tax credit (“Clean Electricity ITC”) under Section 48E of the Code. The credit is available for any “qualified facility” and certain energy storage technology. To qualify, a “qualified facility” must generate electricity and may not have greater than zero greenhouse gas emissions. Unlike the existing ITC, nuclear power plants could qualify for the Clean Electricity ITC. The Clean Electricity ITC is available in the year the qualified facility is placed in service, in an amount equal to a specified percentage of the basis of qualified property included in the facility. The percentage is equal to 6 percent if the PWA Requirements are not satisfied with respect to the construction of the facility, and is increased to 30 percent if the PWA Requirements are satisfied. For facilities satisfying the PWA Requirements, an additional 10 percentage point increase (i.e. from 30% to 40%) is available if the facility is located in an “energy community” (as described above) and a further 10 percentage point increase is available if certain domestic content requirements are met. For facilities that do not satisfy the PWA Requirements, a two percentage point increase is available to facilities that satisfy the energy community and domestic content requirements.

OTHER TAX CREDIT INCENTIVES

The IRA provides some additional tax credit incentives that could benefit the development of future nuclear power plants. The new clean hydrogen PTC under Section 45V of the Code establishes a PTC for qualifying hydrogen production facilities. Other governmental programs may encourage the use of nuclear power to produce hydrogen. In addition, the new advanced manufacturing PTC under Section 45X of the Code encourages the production of certain components that can be used in nuclear power plants, including certain inverter equipment and electricity storage equipment.

HIGH-ASSAY LOW-ENRICHED URANIUM FUNDING

The IRA also earmarks \$700 million for the development of a domestic market and production of high-assay low-enriched uranium (“HALEU”). The money must be spent by the DOE by 2026. Advanced nuclear reactors and future reactors require HALEU for their operation and Russia, prior to the invasion of Ukraine in 2022, was the leading supplier of HALEU for U.S. manufacturers. Due to embargoes and sanctions on Russian companies, the funding is intended to fund research and provide money to U.S. companies to fully develop a U.S. supply of HALEU.

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