# IRS and Treasury Publish Final Regulations for Sections 45Y and 48E Technology-Neutral Clean Electricity Production and Investment Tax Credits

On January 15, 2025, the United States Department of the Treasury ("Treasury") and the Internal Revenue Service ("IRS") published final regulations (the "Final Regulations") regarding the clean electricity production credits available under Section 45Y (the "Tech-Neutral PTC") of the Internal Revenue Code of 1986, as amended (the "Code") and the clean electricity investment tax credits available under Section 48E of the Code (the "Tech-Neutral ITC" and, together with the Tech-Neutral PTC, collectively the "Tech-Neutral Credits").

The Tech-Neutral Credits were introduced under the Inflation Reduction Act of 2022 ("IRA") to replace existing technology-specific tax credits available under Sections 45 and 48 of the Code with technology-neutral credits that apply to clean energy projects generally and that generate zero or negative greenhouse gas ("GHG") emissions. The Final Regulations largely adopt the proposed regulations for the Tech-Neutral Credits that were published on June 3, 2024 (as corrected on July 18, 2024) (the "Proposed Regulations") and are effective as of January 15, 2025.

The Tech-Neutral Credits generally apply to qualified facilities and energy storage technologies that are placed in service after December 31, 2024. The legacy production and investment tax credits will still be available for projects that started construction prior to 2025, subject to certain continuity requirements. However, taxpayers may only claim one credit (either a legacy tax credit or a Tech-Neutral Credit) with respect to a particular project.

The Tech-Neutral Credits will commence phasing out over a three-year period upon the later of 2032 and when annual GHG emissions from U.S. electricity production drop to 25% or less of 2022 levels, as determined by the Secretary of Treasury. The credit will be reduced by 0% in the first calendar year following the emissions drop, by 25% in the second year, by 50% in the third year and will fully phase out in the fourth year.

## BACKGROUND

The Tech-Neutral PTC replaces the existing production tax credits under Section 45 of the Code, and is available to taxpayers with a qualified facility placed in service after December 31, 2024. The Tech-Neutral PTC provides a base credit amount of 0.3 cents per kWh for the first 10 years of operation; however, if prevailing wage and apprenticeship requirements are met, the Tech-Neutral PTC base credit amount can be increased to 1.5 cents per kWh. In addition, the Tech-Neutral PTC may be increased by an additional 10% if certain domestic content requirements are met and/or an additional 10% if the qualified facility meets the criteria to be classified as being located in an "energy community". In order to qualify for the tax credit, the electricity produced at a qualifying facility must be either (i) sold to an unrelated person or (ii) if the facility is equipped with a metering device owned and operated by an unrelated person, sold, consumed, or stored by the taxpayer during the taxable year. The Final Regulations confirm that the sale of electricity to a related party with a subsequent sale to an unrelated party cannot be treated as a sale to an unrelated party.

The Tech-Neutral ITC replaces the Section 48 investment tax credit, and is available to taxpayers with a qualified facility or energy storage technology placed in service after December 31, 2024. The Tech-Neutral ITC provides a base credit amount of 6% of qualified investments; however, if prevailing wage and apprenticeship requirements are met, the base credit amount for the Tech-Neutral ITC can be increased to 30%. In addition, the Tech-Neutral ITC may be increased by an additional 10% if certain domestic content requirements are met, an additional 10% if the qualified property is located in an energy community and/or an additional 20% if the qualified property is located in a low-income community.

The Tech-Neutral Credits are transferable to third parties subject to the IRA transferability rules and, for government and non-government tax-exempt entities, the Tech-Neutral ITCs are eligible for direct payments at the taxpayer's discretion.

## EXECUTIVE SUMMARY

The Final Regulations largely adopt the Proposed Regulations for the Tech-Neutral Credits, but also provide clarification and guidance on a number of points raised through the public comment process. We note the following key points:

- The first Annual Table published by the Secretary of Treasury lists the following non-combustion and gasification technologies that are deemed to have a GHG emissions rate of not greater than zero: wind, hydropower, marine and hydrokinetic, solar, geothermal, nuclear fission, fusion energy and waste energy recovering property (that derives energy from one of the seven prior listed sources).
- The first Annual Table does not include combustion and gasification technologies. However, the Final Regulations include rules and guidance regarding the designation of GHG emissions lifecycle analysis models for determining an emissions value for these facilities.
- Facilities with GHG emissions rates greater than zero in a taxable year are ineligible for a Tech-Neutral PTC for that year but may still claim credits in subsequent years within the 10-year credit period where GHG emissions rates are not greater than zero.
- The Final Regulations clarify that the "80/20 Rule" and the "Incremental Production Rule" are distinct rules and provide guidance for facilities that have been retrofitted or restarted.
- Hydrogen energy storage property may qualify for a Tech-Neutral ITC even if the property is used to store hydrogen for purposes other than electricity generation.
- The Final Regulations provide additional guidance on a number of other areas, including the application of prevailing wage and apprenticeship requirements, the treatment of shared integral property for co-located facilities, qualification requirements for interconnection property and the rules applying to carbon capture and sequestration.

The fate of the Final Regulations and the IRA more broadly remains vulnerable to repeal or modification under the current administration.

## SUMMARY OF KEY CHANGES

### *Qualifying Facilities and GHG Emissions Rates*

The GHG emissions rates of specific technologies for purposes of the Tech-Neutral Credits are determined through one of two ways:

- <u>Annual Table</u>: The Secretary of Treasury is required to publish an annual table ("<u>Annual Table</u>") setting forth a list of types or categories of technologies and their respective emissions rates that are deemed to have a GHG emissions rate of not greater than zero.

- Provisional Emissions Rate: If the specific type or category of technology for a facility is not listed in the Annual Table the taxpayer can petition the Secretary of Treasury for a provisional emissions rate based on an emissions value that is supported by either a letter from the Department of Energy or based on a GHG emissions lifecycle analysis ("LCA") model designated by the IRS.

To provide clarity and certainty to taxpayers regarding eligibility, the Final Regulations confirmed that Treasury and the IRS also intend to include in the Annual Table the types or categories of facilities that have a GHG emissions rate of greater than zero. Any additions to or removals from the Annual Table must be accompanied by publication of expert analysis and be consistent with the designated model for conducting an LCA in the case of combustion and gasification ("C&G") facilities or a technical assessment of the fundamental energy transformation into electricity in the case of non-C&G facilities.

On January 15, 2025, Treasury published the first Annual Table listing the following eight non-C&G technologies: wind; hydropower; marine and hydrokinetic; solar; geothermal; nuclear fission; fusion energy; and waste energy recovering property (that derives energy from one of the seven prior listed sources). No C&G facilities were included in the first Annual Table.

The Annual Table is effective until the effective date of the subsequent Annual Table, and taxpayers may rely on the GHG emissions rate in the Annual Table that was in effect when a facility began construction.

### *C&G Facilities and LCA models*

The determination of the emissions value for a C&G facility must be based on the most recent model for conducting an LCA, as designated by the Secretary of the Treasury. However, no LCA model has yet been designated.

The Final Regulations largely keep the Proposed Regulations' framework for conducting LCAs for C&G facilities; however, they provide additional clarity and guidance, including the following:

- "Alternative Fates" and Avoided Emissions: GHG emissions from feedstock must be calculated using "alternative fate" assumptions. These assumptions are used to estimate the emissions that would have resulted from the use or disposal of each feedstock were it not used for energy production (*e.g.*, if landfill gas or coal mine methane were used for flaring) as a baseline for measuring the facility's GHG emissions.
- Temporal Scale: The LCA must evaluate the facility's GHG emissions over a 30-year period beginning in the year in which the facility first qualifies (for the Tech-Neutral ITC) or was placed in service (for the Tech-Neutral PTC).
- Spatial Scale: The Final Regulations include criteria to determine the spatial scale of feedstock calculation, including the consideration of the feedstock's use in local, regional, domestic, or international markets and supply chains.
- Updated LCA Baseline: LCA baselines must be updated every 10 years and not more often than every five years in order to reflect regulatory, economic, supply chain or environmental changes.
- No Offsets or Offsetting Activities: Offsets and offsetting activities should not be included in LCA because they are not related to the production of electricity or the lifecycle of the fuel used in electricity production.
- Book-and-Claim Method: A book-and-claim accounting method cannot be used in an LCA for purposes of the section 45Y and 48E credits.

### *Retrofitting and Expansion of Facilities*

Taxpayers may claim Tech-Neutral Credits for capital expenditures associated with retrofitting facilities that have already been placed in service in accordance with the following rules:

- 80/20 Rule: Tech-Neutral Credits may be claimed for retrofitted facilities and treated as newly placed in service provided that the fair market value of the retained components is no more than 20% of the total market value of the relevant unit of the qualified facility, as applied on a unit-by-unit basis (the "80/20 Rule").

- Incremental Production Rule: The incremental production rule allows certain additions to an existing qualified facility—either incremental units or additional electrical capacity—to be treated as eligible property, and for a taxpayer to claim Tech-Neutral Credits based on the increased production capacity (in the case of Tech-Neutral PTC) or the portion of basis attributable to the property that increases the nameplate capacity (in the case of Tech-Neutral ITC) of the facility (the "Incremental Production Rule").

The Final Regulations include the following clarifications:

- The 80/20 Rule is distinct from the Incremental Production Rule; however, if a retrofitted facility satisfies both the rules, the entire facility will be treated as being newly placed in service. The Tech-Neutral Credits under the Incremental Production Rule may be claimed even if legacy tax credits had been claimed for the original facility.
- Under the Proposed Regulations, the eligible portion of increased capacity under the Incremental Production Rule was determined exclusively by reference to a facility's nameplate capacity. The Final Regulations continue to allow this, but also provide additional measurement options. Those options include modified or amended facility operating licenses from the Federal Energy Regulatory Commission ("FERC") or the Nuclear Regulatory Commission ("NRC") and any future measurement standard prescribed by the Secretary of Treasury.
- Under the Proposed Regulations, a Tech-Neutral ITC was granted for the full basis of a qualified investment in a new unit, whereas only a partial credit was granted for investments in additions to capacity. The Final Regulations make the rule for an addition of capacity equivalent to that of a new unit, allowing the full basis to be eligible for the tax credit.

### *Restarting Decommissioned Facilities*

A facility that is decommissioned and restarts can qualify for the Tech-Neutral Credits if it meets certain conditions. The Final Regulations make the following changes to the Proposed Regulations' application of this rule:

- The Proposed Regulations required a facility to undergo a period without a valid operating license in order to qualify as having been decommissioned. The Final Regulations modify this language to require a period of at least one calendar year during which the facility was not authorized to operate by its respective federal regulatory authority (*i.e.*, FERC or NRC). With this change, the Final Regulations cover the typical situation for decommissioning a hydropower or nuclear facility in which the licensee maintains an operating license that no longer authorizes the operation of the facility.
- The restarted facility must be eligible to restart based on an operating license issued by either FERC or NRC.
- The facility may not cease operations for the purpose of qualifying for the Tech-Neutral Credits.
- A facility that is decommissioned or in the process of decommissioning and restarts can be considered to have increased capacity from a base of zero if certain conditions are met.

### *No Aggregation of Qualified Facilities*

The Final Regulations confirm that the prevailing wage and apprenticeship rules and bonus adder credits apply at the "qualified facility" level rather than the "energy project" level, except if the qualified facility has a maximum net output of less than one megawatt. This is a shift from the legacy Section 48 investment tax credit, which had permitted aggregation of closely related generation and storage assets as part of an "energy project" for the purposes of satisfying such provisions.

### *Co-location of Qualified Facilities*

The Final Regulations confirm that a taxpayer must own at least a fractional interest in an entire unit of a qualified facility to be eligible to claim the Tech-Neutral ITC; however, they clarify that the taxpayer does not need to own all "integral property" (*i.e.*, an integral part of a qualified facility that is "used directly in the intended function of the property and is essential to the completeness of such function"). Taxpayers who share integral property with another qualified facility may claim Tech-Neutral Credits on the cost basis for the shared property in proportion to each taxpayer's ownership interest.

*Hydrogen Energy Storage*

Hydrogen energy storage property is eligible for the Tech-Neutral ITC. The Proposed Regulations required that such property be used to store hydrogen exclusively for energy production and not for other purposes, such as the production of fertilizer. The Final Regulations remove this limitation.

The Final Regulations also clarify that property that is an integral part of hydrogen energy storage property (and therefore is eligible for the Tech-Neutral ITC) includes, but is not limited to, hydrogen liquefaction equipment and gathering and distribution lines within a hydrogen energy storage property.

*Interconnection Property*

The Final Regulations allow a taxpayer to claim the Tech-Neutral ITC for interconnection property for qualified facilities within a larger energy project, provided that such claim is limited to qualified facilities that each have a nameplate generating capacity (as measured in alternating current) of five megawatts (the "Five-Megawatt Limitation"). The Final Regulations clarify the application of the Five-Megawatt Limitation in cases in which a qualified facility's nameplate generating capacity differs from the maximum output provided in the interconnection agreement. For example, if two separate taxpayers have qualified facilities that meet the Five-Megawatt Limitation and are both party to the same interconnection agreement with a utility that allows for a maximum output of 10 megawatts, each taxpayer may include their respective costs paid or incurred for the qualified interconnection property to calculate their respective Tech-Neutral ITC.

*Carbon Capture and Sequestration*

In the calculation of the GHG emissions rate to determine credit eligibility, the GHG emissions of a qualified facility in the production of electricity are reduced by the amount of qualified carbon dioxide that is captured by the taxpayer at the qualified facility and stored or utilized in accordance with specific requirements. The Final Regulations provide stringent requirements for substantiation and verification of carbon capture and sequestration that must be satisfied for qualified carbon dioxide to be taken into account to compute the GHG emissions rate of a qualified facility.

The Final Regulations also apply the recapture provisions under Section 45Q of the Code, requiring adjustments to the facility's GHG emissions calculations if there are previously captured carbon dioxide leaks. These adjustments have the potential to affect such a facility's credit eligibility.

## CONCLUSION

The Final Regulations and the first Annual Table provide welcome certainty regarding the implementation of the Tech-Neutral Credits. However, the future of the Final Regulations and clean energy tax credits under the IRA more broadly is uncertain as they remain vulnerable to repeal or modification by Congress or the current administration, including as part of the ongoing federal budget reconciliation process or pursuant to the Congressional Review Act. A full repeal of the IRA by Congress is unlikely given the broad bipartisan support for certain of the clean energy tax credits (with the majority of the tax benefits going to purple or Republican-led states) and the Republican party's thin margins in the House and Senate. Nevertheless, even if Congress does not approve a change in law, the Final Regulations can still be modified by the administration pursuant to the notice-and-comment procedures under the Administrative Procedure Act.

NEW YORK

Lauren Angelilli
+1-212-474-1016
langelilli@cravath.com

Andrew C. Compton
+1-212-474-1222
acompton@cravath.com

April M. Kent
+1-212-474-1116
akent@cravath.com

Christopher K. Fargo
+1-212-474- 1236
cfargo@cravath.com

Will Kim
+1-212-474-1362
wkim@cravath.com

CRAVATH, SWAINE & MOORE LLP

NEW YORK

Two Manhattan West
375 Ninth Avenue
New York, NY 10001
+1-212-474-1000

LONDON

CityPoint
One Ropemaker Street
London EC2Y 9HR
+44-20-7453-1000

WASHINGTON, D.C.

1601 K Street NW
Washington, D.C. 20006-1682
+1-202-869-7700

cravath.com