

INSIGHTS

Treasury Releases Final Regulations on 45Q Carbon Capture Credits

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On January 6, 2021, the Department of the Treasury and the Internal Revenue Service (IRS) issued **[final regulations](#)** (the Final Regulations) under section 45Q of the Internal Revenue Code of 1986, as amended (Section 45Q), which allows a credit for carbon oxide sequestration (the Section 45Q Credit). The Final Regulations amend and clarify the **[proposed regulations](#)** under Section 45Q (the Proposed Regulations) released on May 28, 2020, described in Bracewell's alert available [here](#). In 2020, the IRS also issued **[Notice 2020-12](#)** (the Notice), providing guidance concerning the start of construction requirement under Section 45Q and **[Revenue Procedure 2020-12](#)**, providing a safe harbor for partnerships to make valid allocations of the Section 45Q Credit.

Background

Section 45Q, enacted in 2008 and expanded by the Bipartisan Budget Act of 2018, seeks to incentivize the reduction of carbon oxide emissions and the efficient use of carbon oxide, including for purposes of enhanced oil recovery. Section 45Q allows a credit based on the metric tons of carbon oxide that a taxpayer captures using carbon capture equipment at a qualified facility and disposes of through secure geological storage, uses as a tertiary injectant for oil or gas recovery, or utilizes through photosynthesis, conversion to a material or chemical compound, or any other purpose for which a commercial market exists as determined by the Secretary of the Treasury. For carbon capture projects placed in service after February 8, 2018, taxpayers generally are eligible for Section 45Q Credits for 12 years after the project is placed in service. The Section 45Q Credits for such projects increase each year to a maximum of \$50 per metric ton of qualified carbon oxide disposed, and a maximum of \$35 per metric ton of qualified carbon oxide injected or used, in each case, with inflation adjustments after 2026. Prior to the Consolidated Appropriations Act, 2021 (the 2021 Act), the Section 45Q Credit was available only for qualifying projects for which construction began before January 1, 2024. The 2021 Act extended the start of construction deadline through the end of 2025, as described in Bracewell's alert available [here](#).

The Final Regulations

The Final Regulations generally are responsive to stakeholder comments and, among other changes and clarifications: (i) simplify the definition of carbon capture equipment; (ii) allow

taxpayers to aggregate smaller carbon capture facilities for purposes of meeting minimum capture requirements; (iii) reduce the Section 45Q Credit recapture period to three years; (iv) clarify taxpayer eligibility to claim the Section 45Q Credit by contractually ensuring carbon oxide capture, storage, injection or utilization and the transferability of such credit; and (v) clarify the scope for utilization of carbon oxide and lifecycle analysis (LCA) for measuring utilized carbon oxide. Accordingly, the Final Regulations provide greater certainty for developers and investors to move forward with carbon capture and sequestration projects and seek Section 45Q Credits.

Definition of Carbon Capture Equipment

Section 45Q does not define carbon capture equipment. The Proposed Regulations generally provided that carbon capture equipment includes all components of property that are used to capture or process carbon oxide until the carbon oxide is transported for disposal, injection or utilization. They also listed items included in, and excluded from, the definition of carbon capture equipment. The Final Regulations remove this list in favor of a functionality-based definition, which, consistent with the Proposed Regulations, defines carbon capture equipment as including all components used to capture or process carbon oxide until the carbon oxide is transported for disposal, injection or utilization. Under the Final Regulations, carbon capture equipment is equipment used for the purpose of:

- separating, purifying, drying and/or capturing carbon oxide that would otherwise be released into the atmosphere from an industrial facility;
- removing carbon oxide from the atmosphere via direct air capture; or
- compressing or otherwise increasing the pressure of carbon oxide.

The Final Regulations provide that carbon capture equipment generally does not include components of property used for transporting carbon oxide for disposal, injection or utilization, but does include a gathering and distribution system that collects carbon oxide from one or more qualified facilities that constitute a single project to transport the carbon oxide away from the qualified facility or project to a pipeline used by one or more taxpayers and projects.

The Final Regulations also clarify that carbon capture equipment that is originally placed in service at a qualified facility on or after February 9, 2018 may be owned by a taxpayer other than the taxpayer that owns the industrial facility at which the carbon capture equipment is placed in service.

Aggregation to Achieve Minimum Capture Requirements

Under Section 45Q, a qualified facility is either an industrial facility or direct air capture facility which captures at least the minimum metric tons of carbon oxide provided in Section 45Q, based on the type of facility (the Minimum Capture Requirements). Commenters requested that taxpayers be permitted to aggregate carbon capture from multiple facilities to achieve the Minimum Capture Requirements.

In response to these comments, the Final Regulations allow taxpayers to aggregate multiple facilities that are operated as a single project, determined in accordance with the factors described in section 8.01 of the Notice, for purposes of achieving the Minimum Capture Requirements. Pursuant to the Notice, factors indicating that multiple facilities are part of a single project include, but are not limited to: (i) the facilities are owned by the same legal

entity; (ii) the facilities are constructed in the same general geographic location or on adjacent or contiguous pieces of land; (iii) a single system of gathering lines or a single off-take operation is used to collect and deliver carbon oxide to a transportation pipeline; (iv) carbon oxide captured from the qualified facilities is disposed of, utilized, or used as a tertiary injectant pursuant to a shared contract; (v) the facilities are described in one or more common environmental or other regulatory permits or are required to collectively report their activities; (vi) the facilities were constructed pursuant to a single contract providing FEED or similar services covering the full scope of the single project; (vii) the facilities were constructed pursuant to a single master construction contract; and (viii) the construction of the facilities was financed pursuant to the same loan agreement.

Recapture Period for Carbon Capture Credits

The Proposed Regulations provided that Section 45Q Credits are subject to recapture during the period beginning on the date of the first injection of carbon oxide into secure geological storage or use as a tertiary injectant and ending upon the earlier of five years after the last taxable year in which the taxpayer claimed a Section 45Q Credit with respect to the project, or the date monitoring ends (the Recapture Period). Credit recapture is triggered when the amount of previously-captured carbon oxide that leaks into the atmosphere exceeds the amount of carbon oxide disposed of in secure geological storage, including as a tertiary injectant, during the same taxable year (the Recapture Event). The net leakage is recaptured at a credit rate calculated on a LIFO basis for up to the fifth preceding year (the Look-Back Period). The amount of the recaptured credits is added to the taxpayer's tax liability in the year in which the Recapture Event occurs.

Stakeholders commented that reducing the Recapture Period would increase certainty and reduce risk, incentivizing investment in carbon capture projects. Others commented that it takes less than three years for carbon oxide injected into an underground reservoir to become stable, and once stabilized, the risk of leakage is significantly reduced. In response to these and other comments, the Final Regulations shorten the Recapture Period from five years to three years following the last taxable year in which the taxpayer either claimed a Section 45Q Credit or was eligible to claim a Section 45Q Credit that it elected to carry forward. Such three-year period is expected to account sufficiently for the risk of leakage and reduce taxpayers' compliance burden. Further, the three-year period is consistent with the statutory period for assessing Federal income tax. In addition, the Final Regulations shorten the Look-Back Period to the three taxable years preceding the related Recapture Event.

Taxpayer Eligibility for, and Transferability of, Carbon Capture Credits

Section 45Q provides that, in the case of carbon oxide captured using carbon capture equipment originally placed in service at a qualified facility on or after February 9, 2018, the person that owns the carbon capture equipment and physically or contractually ensures the capture and disposal, utilization, or use as a tertiary injectant of such carbon oxide is entitled to the credits (the Qualified Taxpayer). Such Qualified Taxpayer may elect to transfer the credits to the person that disposes of the carbon oxide, utilizes the carbon oxide, or uses the carbon oxide as a tertiary injectant.

The Proposed Regulations provided a framework for the types of contracts, terms and reporting requirements associated with contractually ensuring capture and disposal or use of carbon oxide. The Proposed Regulations required the owner of the carbon capture equipment to have a binding contract that is enforceable under state law against the taxpayer and the party that

physically carries out the disposal, injection or utilization of the carbon oxide and that does not limit damages to a specified amount.

Commenters requested clarification regarding the use of both contractors and subcontractors for the disposal, injection or utilization of the captured carbon oxide. The Final Regulations provide that a taxpayer may enter into a contract with a general contractor that hires subcontractors to physically carry out the disposal, injection or utilization of the carbon oxide, but the contract must bind the subcontractors to the requirements of the subsection. The Final Regulations, consistent with the Proposed Regulations, permit binding written contracts with multiple parties for the disposal, injection or utilization of carbon oxide.

The Proposed Regulations elaborated upon the Qualified Taxpayer's right to elect to transfer Section 45Q Credits to the person that disposes, utilizes or injects the carbon oxide. Commenters requested clarification whether the election could be made to transfer the credits to various persons in the contractual chain for such services. In response, the Final Regulations provide only the person that contracts with the electing Qualified Taxpayer for the disposal, utilization or injection of carbon oxide may qualify as a credit claimant. If such person subcontracts any services to other parties, such subcontractors are not eligible transferees of the credits. The Final Regulations are premised on the fact that only the person or persons with direct contractual privity with the electing Qualified Taxpayer, and not subcontractors, are eligible transferees of the Section 45Q Credit.

Utilization of Carbon Oxide and LCA

For purposes of Section 45Q, utilization of carbon oxide means: (i) the fixation of such carbon oxide through photosynthesis or chemosynthesis, such as through the growing of algae or bacteria; (ii) the chemical conversion of such carbon oxide to a material or chemical compound in which such carbon oxide is securely stored; or (iii) the use of such carbon oxide for any other purpose for which a commercial market exists (with the exception of use as a tertiary injectant in a qualified enhanced oil or natural gas recovery project), as determined by the Secretary of the Treasury. Commenters requested that the Final Regulations define existing commercial markets. In response, the Final Regulations define the term broadly as a market in which a product, process or service that utilizes carbon oxide is sold or transacted on commercial terms. The definition was drafted to allow for the development of new technologies.

The Final Regulations also address the measurement of utilized carbon oxide. Section 45Q states that the amount of carbon oxide utilized by the taxpayer shall be equal to the metric tons which, based upon an analysis of lifecycle greenhouse gas emissions (as defined in the Clean Air Act), were captured and permanently isolated from the atmosphere, or displaced from being emitted into the atmosphere. The Final Regulations provide that the analysis must consider the full product lifecycle, including all states of product and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished product to the ultimate consumer.

An LCA report must be prepared in conformity with International Organization for Standardization (ISO) 14040:2006, Environmental management — Life cycle assessment — Requirements and guidelines. The LCA report is subject to technical review by the Department of Energy (DOE), and the IRS will determine whether to approve the LCA and will notify the taxpayer. Approval of the LCA report is a condition for claiming Section 45Q Credits with respect to the utilization of carbon oxide. The IRS intends to issue additional procedural guidance regarding the LCA submission and review process, including the length of time

necessary for LCA review. Further, as the DOE and IRS review LCAs, the Department of the Treasury and IRS may issue further guidance addressing common fact patterns.