

INSIGHTS

Treasury Releases Long-Awaited Proposed Regulations under Section 45Q

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On May 28, 2020, the Department of the Treasury issued [proposed regulations](#) (the Proposed Regulations) under Section 45Q of the Internal Revenue Code of 1986, as amended (Section 45Q), which provides a credit for the capture and sequestration of carbon oxide and certain related activities (the Section 45Q Credit). The Proposed Regulations, which were eagerly-awaited by taxpayers, practitioners, the carbon capture and sequestration industry, and environmental stakeholders, come one year after the IRS, in [Notice 2019-32](#), solicited general comments from the public on a number of issues and questions raised by Section 45Q. In response to these comments, the Proposed Regulations provide guidance on the standards for secure geological storage, the mechanics for claiming and transferring Section 45Q Credits, and the recapture of Section 45Q Credits, among other topics, which should provide greater certainty for developers and investors to move forward with carbon capture and sequestration projects. Although the Proposed Regulations apply for taxable years after the date of publication in final form in the Federal Register, taxpayers may choose to apply the Proposed Regulations for taxable years beginning after February 8, 2018, if applied in their entirety and in a consistent manner.

Background

Section 45Q, enacted in 2008 and expanded by the Bipartisan Budget Act of 2018 (the BBA), seeks to incentivize the reduction of carbon oxide emissions and the efficient use of carbon oxide, including for purposes of enhanced oil recovery (EOR). Section 45Q allows a credit based on the metric tons of qualified carbon oxide that the taxpayer captures using carbon capture equipment and disposes of through secure geological storage, uses as a tertiary injectant for EOR, 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.

The Section 45Q Credit is available for projects for which construction begins before January 1, 2024, and continues for twelve years after a qualifying project is placed in service. For projects placed in service after February 8, 2018, the amount of the credit increases each year to a maximum of \$50 per metric ton of qualified carbon oxide disposed of, and a maximum of \$35 per metric ton if such carbon oxide is injected or utilized, in each case, with an inflation adjustment after 2026. Reduced credits are available for projects placed in service on or before February 8, 2018.

Secure Geological Storage

Section 45Q's most notable omission was a definition or standard for secure geological storage. Many commenters noted that the lack of clear guidance concerning secure geological storage was, more than any other issue under Section 45Q, inhibiting carbon capture and sequestration projects, and investment in such projects, from moving forward.

Section 45Q(f)(4) requires the Secretary of the Treasury, in consultation with the Environmental Protection Agency (EPA), the Secretary of Energy, and the Secretary of the Interior to establish regulations for determining adequate security measures for geological storage to ensure that qualified carbon oxide does not escape into the atmosphere. The Proposed Regulations provide, consistent with prior IRS guidance in Notice 2019-32, that a taxpayer will be deemed to store captured qualified carbon oxide in secure geological storage if such storage is in compliance with the EPA's rules for monitoring, reporting, and verifying carbon capture and sequestration projections found in [subpart RR](#) of 40 CFR pt. 98 (Subpart RR).

In response to feedback from several commenters, the Proposed Regulations permit taxpayers using captured qualified carbon oxide as a tertiary injectant for EOR to rely on the [CSA/ANSI ISO 27916:19 standard](#) (the ISO Standard) as an alternative to Subpart RR. A taxpayer that reports volumes of carbon oxide to the EPA pursuant to Subpart RR may self-certify the volume of carbon oxide claimed for purposes of Section 45Q. Alternatively, if a taxpayer determines volumes pursuant to the ISO Standard, the taxpayer's documentation must be certified by a qualified independent engineer or geologist as accurate and complete.

Eligibility for Section 45Q Credits

Section 45Q(f)(3) provides that, in the case of a project placed in service after February 8, 2018, Section 45Q Credits may be claimed by a taxpayer that owns carbon capture equipment and either (1) physically ensures the capture, disposal, injection or utilization of the qualified carbon oxide, or (2) contractually ensures the performance of these activities (the Eligibility Rule). Section 45Q, however, does not describe how a taxpayer contractually ensures performance of such activities. Accordingly, prior to the Proposed Regulations, taxpayers that owned carbon capture equipment, and contracted with other parties to capture and dispose of, inject or utilize the qualified carbon oxide, lacked certainty as to whether such contracts would satisfy the Eligibility Rule.

The Proposed Regulations provide that, to contractually ensure performance of the capture and disposal, injection, or utilization of qualified carbon oxide, a taxpayer must enter into a binding written contract with the party that physically performs such activities. The contract must include commercially reasonable terms, must be enforceable against both parties under State law, and may not limit damages to a specific amount. The Proposed Regulations also require that the contract include enforcement mechanisms to ensure the counterparty's obligation to perform; no specific mechanism is required, although the Proposed Regulations provide that such contracts may include provisions relating to long-term liability, indemnification, penalties for breach of contract, and liquidated damages.

The Proposed Regulations further provide that a taxpayer may enter into multiple binding written contracts with multiple parties for the performance of capture and disposal, injection, or utilization of qualified carbon oxide. The Preamble to the Proposed Regulations provides, as an example, that a taxpayer that captures qualified carbon oxide may contract with one party to dispose of a portion of such carbon oxide in a deep saline formation, with another party to

use a portion of such carbon oxide in multiple EOR sites, and with several other parties to utilize the balance of such carbon oxide.

Finally, a taxpayer is not considered to elect to transfer all or a portion of allowable Section 45Q Credits to a contracting party solely by contracting for services related to such carbon oxide. Such credits may be transferred only through the Transfer Election, described below.

Transfer of Section 45Q Credits

Section 45Q permits a taxpayer eligible to claim Section 45Q Credits under the Eligibility Rule to elect to allow the party that disposes of, injects, or utilizes the qualified carbon oxide to claim the credit (the Transfer Election). The Transfer Election, along with the allocation of credits to tax equity investors through partnerships, or other entities classified as partnerships, pursuant to [Rev. Proc. 2020-12](#), allows taxpayers without sufficient tax liability to benefit from the credits to monetize Section 45Q Credits and reduce overall project costs.

The Proposed Regulations, consistent with the expressed preference of several commenters, offer considerable flexibility to taxpayers seeking to transfer Section 45Q Credits. The Proposed Regulations permit the Transfer Election to be made for all or part of available Section 45Q Credits, and may be made to a single or multiple credit claimants, for each taxable year. If a taxpayer elects to transfer Section 45Q Credits to multiple credit claimants, the maximum amount of credits allowable to each credit claimant is proportional to the amount of qualified carbon oxide disposed of, injected, or utilized by such claimant. Finally, a credit claimant may receive transfers of Section 45Q Credits from one or more electing taxpayers in the same taxable year without limitation.

Recapture of Credits

Section 45Q(f)(4) requires the Secretary of the Treasury to promulgate regulations addressing the recapture of Section 45Q Credits if qualified carbon oxide ceases to be captured and disposed of or injected in a manner consistent with the requirements of Section 45Q. Prior to the Proposed Regulations, the absence of guidance regarding recapture of Section 45Q Credits created uncertainty regarding the scope of the recapture risk which, in turn, deterred investment in carbon capture and sequestration projects. The Proposed Regulations, however, provide greater clarity by defining how the recapture is computed and borne, and the length of the recapture period.

First, the Proposed Regulations provide that a taxpayer is subject to recapture only to the extent the amount of qualified carbon oxide leaked to the atmosphere in a taxable year exceeds the amount disposed of or injected in the same taxable year (the Net CO Decrease). This determination is made separately for each project. The amount of the recapture is the product of the Net CO Decrease and the appropriate credit rate, using the last-in-first-out (LIFO) method. In other words, the leakage is deemed attributable to the first prior taxable year, then subsequent prior taxable years, in order, for up to five taxable years. If there is no Net CO Decrease, there is no recapture amount, although the amount of carbon oxide leaked to the atmosphere would offset the amount of qualified carbon oxide disposed of, or injected, in such year for purposes of computing the Section 45Q Credit.

Second, the recapture period begins on the date on which qualified carbon oxide is first disposed into secure geological storage or used as a tertiary injectant. Such period ends upon the earlier of (1) five years after the last taxable year in which the taxpayer claimed a Section

45Q Credit for the applicable project or (2) the date monitoring ends for such project. Any recaptured amount must be added to the amount of tax due in the taxable year in which the recapture event occurs.

If the leaked carbon oxide was captured by multiple units of carbon capture equipment, and such units were not held under common ownership, the recapture amount must be allocated on a *pro rata* basis among the multiple units of carbon capture equipment. In addition, if the Section 45Q Credit associated with the leaked carbon oxide was taken by multiple taxpayers, the recapture amount must be allocated on a *pro rata* basis among the taxpayers that claimed the credits to which the leaked carbon oxide is attributed.

To illustrate the recapture provisions, assume a taxpayer (Owner) owned a facility (the Facility) which captured qualified carbon oxide which Owner sold for use in EOR. Owner claimed the entire Section 45Q Credit for 100,000 metric tons of carbon oxide captured in each of 2021, 2022 and 2023. Such credits were \$2.268 million in 2021, \$2.515 million in 2022, and \$2.761 million in 2023. On January 1, 2024, Owner sold the Facility to an unrelated buyer (Buyer) and, in 2024 the Facility captured 90,000 metric tons of qualified carbon oxide which was sold for use in EOR. Buyer utilized the Section 45Q Credit of \$2.706 million in 2024. The Facility was not utilized after 2024.

In 2025, leakage of 190,000 metric tons of carbon oxide is detected. Using the LIFO method, 90,000 metric tons of leakage is attributed to 2024, and the remaining 100,000 metric tons of carbon oxide is attributed to 2023. Because Buyer claimed the entire Section 45Q Credit of \$2.706 million in 2024, Buyer must add the amount of such credit to its tax liability in 2025. Likewise, because Owner claimed the entire Section 45Q Credit of \$2.761 million in 2023, Owner must add the amount of such credit to its tax liability in 2025.

Comment Process

Before the Proposed Regulations are adopted as final regulations, consideration will be given to any comments that are submitted timely to the IRS. The Treasury Department and the IRS have requested comments on all aspects of the Proposed Regulations and continue to accept comments on certain aspects of the BBA amendments to Section 45Q for which guidance has not yet been provided. Finally, Congress is considering various statutory changes to Section 45Q, which Bracewell's [Policy Resolution Group](#) is actively monitoring.