

Final Regulations Issued Regarding Section 45Q Tax Credits Carbon Oxide Sequestration

The U.S. Department of the Treasury and the Internal Revenue Service on January 6, 2021, issued [Treasury Decision 9944](#), providing final regulations relating to Section 45Q tax credits (Regulations). The Regulations provide guidance on the Section 45Q tax credits accrued for certain qualified carbon oxide sequestration activities using qualified equipment.

The Regulations—in tandem with a two-year extension of the deadline for the commencement of construction of qualifying carbon capture projects (pursuant to the [second COVID-19 stimulus legislation signed by President Trump on December 27, 2020](#))—were anticipated by those working on or planning on investments in various carbon capture, utilization, and storage developments.

This update will identify and discuss several important issues discussed in these regulations.

Summary

The Regulations signal the intent of Treasury and IRS to permit the use of Section 45Q tax credits by a broad group of taxpayers on a flexible and beneficial basis. The Regulations do this, in part, by aligning the use of Section 45Q tax credits to well-used and understood tax credit structures and practices that already derive from the Internal Revenue Code (e.g., production tax credits and investment tax credits pursuant to Sections 45 and 48 of the Code, respectively).

Definitions

The Regulations dedicate significant space to definitions. A summary of all of the definitions in the Regulations is beyond the scope of this update, but issues addressed in the definitions of "qualified carbon oxides," "carbon capture equipment," and "qualified facility" all merit attention.

Qualified Carbon Oxides

The Regulations clarify that the amount of the Section 45Q tax credit is computed only on the amount of qualified carbon oxides captured and measured at the source of capture and verified at the point of disposal, injection, or utilization. It does not include all greenhouse gases. For capture of carbon oxides from an industrial source, the carbon oxides may only count toward the Section 45Q tax credit if they otherwise would have been released into the atmosphere as industrial emissions. For capture of carbon oxides by a direct air capture facility,

any carbon oxide that is captured directly from the ambient air may qualify for the Section 45Q tax credit, provided that the carbon oxide is measured at the source of capture and verified at the point of disposal, injection, or utilization.

An important benefit of this definition of qualified carbon oxides is that carbon oxide will be fungible for purposes of the Section 45Q tax credit. Carbon oxide comingled, transported, or stored in a common or shared pipeline (a common practice) will satisfy the definition of qualified carbon oxide, so long as the amount of carbon oxide (as opposed to the particular molecules) is (1) measured at the source of capture and (2) verified at the point of disposal, injection or utilization (i.e., there is a mass balance).

Carbon Capture Equipment

Although Section 45Q of the Code does not expressly define "carbon capture equipment," the Regulations provide a definition of "carbon capture equipment" that relies on the functionality of the equipment: "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."

Treasury and the IRS rejected the definition in the proposed regulations that contained lists of qualifying equipment. They opted instead for this functional definition, stating that it would "provide flexibility without limiting the definition of carbon equipment solely to a list of components, which caused confusion in the proposed regulations."

The Regulations also clarify that all components that make up an independently functioning process train capable of capturing, processing, and preparing carbon oxide for transport would qualify as one unit of carbon capture equipment.

Qualified Facility—Aggregation of Carbon Capture Amounts

Section 45Q(d)(2) provides the carbon oxide capture thresholds, which must be met for a subject facility to be considered a "qualified facility" under the Regulations. The Regulations clarify that taxpayers may aggregate carbon capture amounts from various facilities to meet the minimum capture requirements of Section 45Q(d). To allow for such aggregation, the Regulations permit use of the "single project rule" which allows for multiple facilities or units of carbon capture equipment that would operate as a single project to be treated as a single qualified facility or unit of carbon capture equipment for purposes of determining when construction began.

Factors considered in determining whether such multiple facilities or equipment are operated as a "single project" include: (1) common ownership of carbon capture equipment; (2) common control of carbon capture equipment; (3) common operations and maintenance protocols for the carbon capture equipment; (4) common plan or approach for the design and construction of the carbon capture equipment; (5) common contract for the transport, disposal, or use of the carbon oxides; (6) common use of a single construction management contract for the carbon capture equipment; and (7) common construction financing for the carbon capture equipment.

Taxpayer Eligible to Claim Section 45Q Tax Credits

The Regulations contain important clarifications regarding the taxpayers eligible to claim Section 45Q tax credits. These clarifications expand the universe of potential financing and contractual structures that are possible for the construction, operation, and maintenance of carbon capture equipment.

Carbon Capture Equipment Placed in Service Before February 9, 2018

For carbon capture equipment placed in service at a qualified facility before February 9, 2018, only the person or entity that captures and physically or contractually ensures the disposal of carbon oxides can claim the Section 45Q tax credit. In other words, only the person or entity that owns both the qualified facility and the carbon capture equipment can qualify for the Section 45Q tax credit.

Carbon Capture Equipment Placed in Service on or After February 9, 2018

For carbon capture equipment placed in service on or after February 9, 2018, however, a person or entity that owns the carbon control equipment but does not otherwise own the qualified facility can now claim the Section 45Q tax credit. This clarification greatly expands the potential types of structures that can qualify for Section 45Q tax credits. For example, tax equity partnerships similar to those used in the renewable energy industry to benefit from production tax credits and investment tax credits pursuant to Sections 45 and 48 of the Code, respectively, can now be used to help finance carbon capture equipment.

The Regulations do not provide specific rules regarding how to allocate any Section 45Q tax credits generated by carbon capture equipment that captures qualified carbon oxide among multiple taxpayers that own different components within a carbon capture system or an undivided interest in the same carbon capture equipment. For each single process train of carbon capture equipment, only one taxpayer will be permitted to claim the Section 45Q tax credit, and it will be the taxpayer who either: (1) physically ensures the capture and disposal, injection, or utilization of qualified carbon oxide or (2) contracts with others who capture and dispose of, inject, or utilize qualified carbon oxide. The Regulations, however, expressly allow multiple owners of carbon capture equipment to allocate Section 45Q tax credits among themselves pursuant to a partnership formed in compliance with Revenue Procedure 2020-12. Only a person in direct contractual privity with the person authorized to make the election will be permitted to claim the Section 45Q tax credit. The existence of each contract and the parties involved must be reported to the IRS on an annual basis on Form 8933, "Carbon Oxide Sequestration Credit."

Geological Storage of Carbon Oxide

Of particular interest to domestic oil and natural gas producers, industrial emitters, and those already invested in carbon capture technologies are the Section 45Q tax credits accruing from the disposal or use as injectant for enhanced oil and natural gas recovery with subsequent disposal. To benefit from such tax credits, taxpayers engaging in disposal activities must establish that their qualified carbon oxide was in fact disposed of in "secure geological storage." Such taxpayers have two pathways that demonstrate "secure geological storage":

1. Adopt compliance with the Environmental Protection Administration's (EPA) Greenhouse Gas Reporting (GHGR) regulations and obtain an EPA authorized Monitoring Reporting and Verification (MRV) plan
2. Conform to (a) subpart UU of the GHGR regulations (that did not require an EPA-approved MRV plan) and (b) CAS/ANSI ISO 27916:19, issued by the International Organization for Standardization

Qualifying taxpayers electing to adopt the first pathway described above may self-certify the amounts of carbon oxide securely stored depending on their reporting to the EPA. Qualifying taxpayers electing to adopt second pathway must then obtain independent certification of the amounts securely stored. [1]

Recapture of Section 45Q Tax Credits

The Regulations also provide rules for the recapture of Section 45Q tax credits when qualified carbon oxide capture ceases to be disposed of in a secure geological storage or used as a tertiary injectant (utilized for

enhanced oil and natural gas recovery) consistent with Section 45Q. Among other clarifications, the Regulations reduced the recapture period from five to three years as set forth in the proposed regulations, acknowledging that the risk of qualified carbon oxide leakage leading to a recapture event is greatest in the years in which the qualified carbon oxide is injected, and decreases over time as the qualified carbon oxide becomes stable (through mineralization or the sealing of wells, for instance). The likelihood of leakage decreases thereafter.

Effective Date of the Regulations

The Regulations generally are effective for taxable years beginning on or after the date of filing in the Federal Register. However, taxpayers may elect to apply the Regulations in their entirety retroactively for taxable years beginning on or after January 1, 2018.

What Was Not Included

The Treasury does not appear to be willing to consider any deviation from its placed-in-service requirement or to any interim credit allowance. Although the Section 45Q tax credit is available to the qualified taxpayer for 12 years from the date that a qualified facility is placed in service, but before such a taxpayer can claim these tax credits, the qualifying facility must have procured the necessary: (1) EPA Monitoring, Reporting and Verification Plan and (2) an approved lifecycle greenhouse gas emissions analysis. These requirements can, in themselves, cause a substantial delay to the facility in obtaining these approvals and then incur to the taxpayer a loss of an unknown portion of the 12-year tax credit period and its benefits. We expect that this will be a subject of further concern and commentary.

Associated IRS Release

The IRS made a related release, [IR-2021-05](#), that explains Treasury's final Regulations regarding the Section 45Q tax credits for qualified carbon oxide sequestration for those taxpayers claiming one or both of the following carbon capture tax credit amounts:

- Up to \$50 per metric ton of qualified carbon oxide for permanent sequestration
- Up to \$35 per metric ton of qualified carbon oxide for enhanced oil or natural gas recovery purposes

Pursuant to this IRS release, neither of these credit amounts is subject to a limitation on the number of metric tons of qualified carbon oxide captured.

Endnotes

[1] The Regulations provide that an independent engineer or geologist making a certification regarding a project must be duly registered or certified in a state and that such certification be accompanied by an affidavit from the subject independent engineer or geologist under penalty of perjury that they are independent from the taxpayer, electing taxpayer, and/or tax credit claimants (as applicable).

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