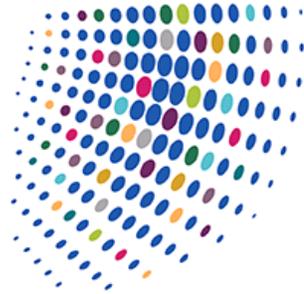


Alerts & Publications



IRS Releases Carbon Capture Section 45Q Proposed Regulations - Providing Long Awaited Answers to Many Developer and Investor Questions

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On May 28, the IRS issued [proposed regulations](#) (REG-112339-17) on the section 45Q credit (“45Q Credit”) for carbon oxide sequestration (the “Proposed Regulations”), providing welcome clarity to several issues that remained uncertain despite the IRS’s recent guidance in Rev. Proc. 2020-12 and Notice 2020-12.¹ The Proposed Regulations address transferability of the credit under section 45Q(f)(3)(B), credit recapture, contractual assurance related to the capture, disposal, use, or injection of qualified carbon oxide, reporting requirements, appropriate security measures for the geological storage of qualified carbon oxide, the application of the 80/20 rule, and a number of essential definitions (e.g., carbon capture equipment and qualified facility).

Background

The 45Q Credit was originally enacted in 2008 as part of the Energy Improvement and Extension Act of 2008. Qualified carbon oxide captured by a taxpayer using carbon capture equipment placed in service before February 9, 2018 (“Pre-BBA”) is eligible for a credit equal to (i) \$20 per metric ton of qualified carbon oxide that is captured and permanently sequestered or (ii) \$10 per metric ton of qualified carbon oxide that is used in enhanced oil recovery (“EOR”) processes or that is utilized in certain other prescribed manners (the “Pre-BBA 45Q Credit”).

Section 45Q was substantially revised as part of the Bipartisan Budget Act of 2018 (the “BBA”), increasing the amount of credit available to taxpayers up to \$50 per metric ton for carbon oxide that is captured and permanently sequestered and \$35 per metric ton for carbon oxide used in EOR and other prescribed processes.² The new rules apply to facilities placed in service on or after February 9, 2018 (“Post-BBA”) and such credit hereinafter referred to as the “Post-BBA 45Q Credit”). While the total amount of credits available for all taxpayers claiming the Pre-BBA 45Q Credits in the aggregate is capped at \$75 million, there is no maximum amount or cap placed on the ability to claim the Post-BBA 45Q Credit. A taxpayer may claim the Post-BBA 45Q Credit during the 12-year period beginning on the date the equipment is originally placed in service.

While the enhanced Post-BBA 45Q Credit has generated substantial interest from investors and developers, a number of important issues and questions relating to the application and calculation of the credit had gone unaddressed by the IRS until very recently with the issuance of a Notice and Revenue Procedure and now with the issuance of these Proposed Regulations. This uncertainty created significant impediments to parties trying to obtain investors to help finance these projects. In response, the IRS issued Notice 2019-32, requesting public comments regarding these issues. The IRS published Notice 2020-12 and Rec. Proc. 2020-12 in response to some of the concerns raised, providing guidance, respectively, in connection with (1) satisfying the “begun construction” requirements by certain deadlines in order to qualify a facility and carbon capture equipment for the Post-BBA 45Q Credit and (2) respecting the allocation of 45Q Credits under section 704(b) relating to investors utilizing partnership “flip” structures (see our prior [Alert](#)). Until now, however, certain very important questions remained unanswered—for example, how the election is made to allow parties other than the owner of the capture and sequestration property to claim the credit, how to calculate the credit where there are multiple parties involved in the capture and storage process, the rules as to how and when the credit would be subject to recapture, and the reporting requirements that taxpayers would be subject to in order to claim the credit. The Proposed Regulations attempt to clarify many of these outstanding items and provide a framework taxpayers can rely on in connection with moving their carbon oxide sequestration projects forward.

Key Guidance in Proposed Regulations

Election to Transfer the 45Q Credit

A taxpayer can elect to transfer the Post-BBA 45Q Credit to the person that disposes, utilizes, or uses the qualified carbon oxide as a tertiary injectant (the “Section 45Q(f)(3)(B) Election”). This flexibility is very attractive to developers and potential investors, but the Post-BBA 45Q Credit rules provided no specifics as to the full scope and manner of making this election.

The Proposed Regulations resolve many of these uncertainties by providing the following guidance:

- The Section 45Q(f)(3)(B) Election can be made for all or any portion of the Post-BBA 45Q Credit available to the electing taxpayer. In addition, the electing taxpayer can make multiple Section 45Q(f)(3)(B) Elections to allow multiple claimants to claim a portion of the Post-BBA 45Q Credits in proportion to the amount of qualified carbon oxide disposed, utilized, or used by each claimant.
- Generally, the Proposed Regulations provide that the Section 45Q(f)(3)(B) Election must be made on an annual basis by the due date for the filing of the taxpayer’s federal income tax return, including extensions.³
- Both the electing taxpayer and claimant of the Post-BBA 45Q Credit must file a Form 8933 with its federal income tax return. The electing taxpayer

must provide each claimant with a copy of the electing taxpayer's Form 8933, which the claimant must attach to its own Form 8933.

Secure Geological Storage

Developers and investors alike who are interested in projects designed for the capture and geologic storage of carbon oxide have been awaiting guidance on the necessary security measures and regulatory regime that will have to be satisfied/complied with to ensure that stored carbon oxide does not escape and reenter the atmosphere to successfully claim these credits.

Generally, the Proposed Regulations require the operator of such projects to comply with the EPA's Underground Injection Control ("UIC") program regulations and to obtain UIC well permits. The classification of the UIC well permits may vary depending on the geological formation of the sequestration site, the relative location of such site to sources of drinking water or waste water, and the experimental nature of such wells, etc.

The regulations also require such projects to comply with the following EPA Greenhouse Gas Reporting Program ("GHGRP") requirements:

- Subpart RR of the GHGRP requires certain geological sequestration facilities to (a) report information on the carbon dioxide injected, (b) develop, receive EPA approval, and maintain a monitoring, reporting, and verification plan ("MRV Plan"), and (c) report the amount of carbon dioxide geologically sequestered. In addition, these rules require that the amount of carbon dioxide stored must be calculated and documented using mass balance accounting.⁴
- Subpart UU of the GHGRP requires other geological sequestration facilities that are not subject to Subpart RR to provide annual reports on the carbon dioxide received for injection.
- Certain projects subject to Subpart RR requirements may use CSA/ANSI ISO 27916:19 (an alternative standard developed for the quantification and documentation of carbon dioxide stored as a result of EOR) as an alternative methodology to quantify the amount of carbon dioxide received (the "ISO Standard").⁵ Similar to Subpart RR, the ISO Standard also requires documentation and monitoring efforts to be calculated and quantified using mass balance accounting.

Contractual Assurance

The 45Q Credit is claimed by the person that owns the carbon capture equipment or facility for the capture and disposal, injection, or utilization of qualified carbon oxide and that physically or contractually ensures the capture and disposal, injection, or utilization of such qualified carbon oxide.

The Proposed Regulations provide guidance on the types of contracts and the terms thereof, as well as the reporting requirements that must be satisfied in order for a taxpayer that contractually ensures the capture and disposal, injection, or utilization of qualified carbon oxide to qualify for the 45Q Credit, including the following:

- The contract must be written, binding and contain commercially reasonable terms for enforcement (such as providing for indemnification, penalties or damages for breach of contract) and should not limit damages to a specified amount;
- The contract terms may, but are not required to, include the amount of qualified carbon oxide that will be disposed of, injected, or utilized by the contracting party;
- Multiple contracts with multiple parties for the disposal, injection, or utilization of qualified carbon oxide are permitted;
- Each such contract must be reported on IRS Form 8933;
- For qualified carbon oxide intended to be disposed of or injected, the contract must obligate the disposing party to:
 - Comply with the Subpart RR requirements or the ISO Standard, as applicable; and
 - In the event of a recapture event, promptly inform the capturing party of all information pertinent to the recapture (i.e., location of leak, quantity of qualified carbon oxide leaked, value of 45Q credit attributable to the leaked qualified carbon oxide) as required under the regulations.
- For qualified carbon oxide intended to be utilized (as opposed to geologically stored), the contract must obligate the utilizing party to comply with the regulations regarding utilization.

We do note, however, that while the Proposed Regulations provide that there can be multiple contracts with multiple parties, the Proposed Regulations do not provide guidance on how a taxpayer can rely on contractual assurance when there is a chain of taxpayers involved in the capture and storage process, for example, where there are separate contracts between the owner of the carbon capture equipment, the party responsible for the transportation of the carbon oxide, and the party responsible for the physical disposal, injection, or utilization of the qualified carbon oxide.

Utilization of Qualified Carbon Oxide

The 45Q Credit is also available to certain taxpayers that utilize qualified carbon oxide in processes such as those that involve (i) the fixation of qualified carbon oxide through photosynthesis or chemosynthesis, (ii) the secure storage of qualified carbon oxide by the chemical conversion of such qualified carbon oxide into another material or chemical compound, or (iii) “the use of such qualified carbon oxide for other purposes for which a commercial market exists” to the extent not otherwise prohibited in the relevant statute.

As with other provisions of the Post-BBA 45Q Credit rules, there were a number of qualification requirements relating to carbon oxide “utilization” that were left unaddressed. The Proposed Regulations add some clarity by providing that a taxpayer must demonstrate the amount of qualified carbon oxide (a) captured and permanently removed from the atmosphere, or (b) displaced from being emitted into the atmosphere by providing an acceptable lifecycle greenhouse gas emissions analysis (life cycle analysis or “LCA”) in order to claim 45Q Credit for its utilization of qualified carbon oxide. In doing so, an LCA must meet the following requirements:

- It must be in writing and either performed or verified by a professionally-licensed third party (the “GHG Expert”).
- The GHG Expert must use generally accepted standard practices of quantifying the greenhouse gas emissions in its documentation, such as certain standard ISO requirements.
- The GHG Expert must also include its qualifications in the documentation.
- The LCA must be submitted to the IRS and the Department of Energy (“DOE”), where it will be subject to review by the IRS, DOE, and EPA.

Recapture of the 45Q Credit

Code section 45Q(f)(4) does not contain specific rules regarding 45Q Credit recapture. Instead, rules relating to the recapture of 45Q Credits claimed with respect to carbon oxide that was captured and that later leaks/re-enters the atmosphere were left subject to the issuance of regulations. To date, the uncertainty regarding the risk of recapture has arguably posed the biggest hurdle to finding investors willing to finance these project due to the deleterious impact that recapture could have on the economics of a project. In discussions with the IRS leading up to the issuance of these proposed regulations industry participants strongly urged the IRS to limit the risk of recapture to a finite 3-year period ending after the taxpayer claimed the applicable credits.

The Proposed Regulations do not provide a safe harbor or a 3-year recapture period as was hoped for, but they do provide clarity regarding potential recapture exposure. Instead of the anticipated 3-year recapture period, the Proposed Regulations limit the recapture period to the period that ends the earlier of (a) 5 years after the year in which the taxpayer last claimed 45Q Credits or (b) the date the monitoring requirements under Subpart RR or the ISO Standard end (the “Recapture Period”).⁶ In particular, the Proposed Regulations provide that, during the Recapture Period, the taxpayer will be required to recapture some or all of the cumulative credits taken to the extent that any qualified carbon oxide that leaks into the atmosphere in a given year exceeds the qualified carbon oxide stored or used as a tertiary injectant in such year (referred to herein as “excess carbon oxide leakage”).

Further, the Proposed Regulations provide the following clarifications regarding the recapture of 45Q Credits:

- If credit recapture is required, a taxpayer will not be required to amend prior year tax returns to reflect such recapture. Instead, the taxpayer will need to account for such recapture in the taxable year the recapture event is identified and reported (as stated above, the amount of recapture is determined based on the excess, if any, of the amount of qualified carbon oxide that has leaked back into the atmosphere over the amount of qualified carbon oxide disposed of or used as a tertiary injectant in the year of the leakage).
- Excess carbon oxide leakage in any given year will result in recapture of credits calculated using the applicable credit rate determined on a last-in first-out basis.
- To the extent that there is excess carbon oxide leakage in any given year, 45Q Credits required to be recaptured will be added to the amount of taxes due in such taxable year.
- When a recapture event occurs with respect to a geological storage facility with multiple owners or claimants, the recaptured credits must be allocated among the owners/claimants proportionate to the amount of qualified carbon oxide captured by their respective carbon capture activity/equipment.
- Leakage of qualified carbon oxide caused by actions not related to the selection, operation, or maintenance of the storage facility will not be treated as a recapture event (e.g., resulting from events such as volcanic activity or terrorist attack).
- Removal of qualified carbon oxide from storage is a recapture event.
- A taxpayer may obtain recapture insurance from third-party insurers.

Amount of Qualified Carbon Oxide Captured With Pre- and Post- BBA Equipment

The determination of the amount of qualified carbon oxide captured for purposes of the 45Q Credit depends on whether the qualified carbon oxide is captured by a qualified facility or equipment placed in service pre-BBA or by a qualified facility or equipment placed in service Post-BBA.

For qualified carbon capture from a qualified facility that was placed in service Pre-BBA, and for which additional carbon capture equipment is placed in service Post-BBA, the amount of qualified carbon oxide captured at such facility for the taxable year is equal to:

- For the portion of a facility's equipment that was placed in service Pre-BBA, the lesser of (i) the total amount of qualified carbon oxide captured at such facility for the taxable year, or (ii) the total amount of the carbon dioxide capture capacity of such facility as of February 8, 2018.
- For the portion of a facility's equipment placed in service Post-BBA, an amount (not less than zero) equal to the excess of (i) the total amount of qualified carbon oxide captured at such facility for the taxable year, over (ii)

the total amount of the carbon dioxide capture capacity of such facility that was in service as of February 8, 2018.

The Proposed Regulations provide that for purposes of analyzing whether a facility or equipment is treated as placed in service Pre-BBA or Post-BBA (and thus determining the appropriate method for quantifying the amount of qualified carbon oxide captured at such facility), a physical modification or equipment addition that results in an increase in the carbon dioxide capture capacity of existing carbon capture equipment is merely considered an installation of additional carbon capture equipment on an existing facility or equipment and will not be treated as placed in service Post-BBA. Whereas, when the cost of a physical modification or equipment addition satisfies the 80/20 rule (discussed below), such installation is treated as “new” carbon capture equipment, as opposed to merely an increase in capacity of an existing Pre-BBA facility. Thus, such new carbon capture equipment, even when installed on a Pre-BBA facility, may determine the amount of the qualified carbon oxide it captured by using the methodology applicable to facilities placed in service Post-BBA.

80/20 Rule

Generally, for purposes of various other tax credits, a facility that undergoes substantial improvement such that the fair market value of the used property is not more than 20% of the facility’s total value after modifications is treated as originally placed in service at the time such improvements are completed. As discussed above, the Proposed Regulations provide that the 80/20 principle also applies to determine whether a facility or equipment is deemed placed in service before or after the effective date of the BBA. Therefore, facilities placed in service Pre-BBA may apply the 80/20 rule to determine whether a portion or all of the facility may qualify as originally placed in service Post-BBA if it has incurred costs for physical modification or equipment addition that satisfies the 80/20 rule. Furthermore, a taxpayer may also include the cost of new pipelines owned and used exclusively by such taxpayer to transport carbon oxides to such qualified facility as the cost of a “new” qualified facility or carbon capture equipment. If a portion or all of a qualified facility or equipment is treated as placed in service Post-BBA under the 80/20 rule, the qualified carbon oxide capture captured by such facility or equipment is eligible for the enhanced Post-BBA 45Q Credit and the amount of qualified carbon captured will be calculated using the Post-BBA methodology (as described in the preceding paragraph).

Definitions

The Proposed Regulations also provide certain important definitions, such as the meaning of “carbon capture equipment” and “industrial facility.”

“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. Specifically, carbon capture equipment includes equipment used for the purpose of separating, purifying, drying, and capturing carbon oxide from an industrial facility, removing carbon oxide from the atmosphere, and compressing or otherwise pressurizing carbon oxide. Carbon

capture equipment includes components of property necessary to compress, treat, process, liquefy, pump or perform some other physical action to capture qualified carbon oxide, such as absorbers, compressors, conditioners, cooling towers, dehydration equipment, and so forth. Components of carbon capture equipment do not include pipelines, branch lines, or land and marine transport vessels used to transport captured qualified carbon oxide. However, equipment used to gather or distribute carbon oxide for the purpose of transporting captured carbon oxide to a pipeline used to transport carbon oxide is carbon capture equipment.

The Post-BBA 45Q Credit is available to owners of carbon capture equipment placed in service Post-BBA at a qualified facility. Because the Proposed Regulations provide that components of equipment used to capture and process carbon oxide are also considered carbon capture equipment, it is unclear whether, in circumstances where there are different owners for qualified facilities or distinct components of the carbon capture equipment, the owners of such components should each be apportioned the Post-BBA 45Q Credit and how such apportionment should be calculated.

The Proposed Regulations provide that for purposes of the 45Q Credit, an “industrial facility” is a facility that produces a carbon oxide stream from a fuel combustion source or fuel cell, a manufacturing process, or a fugitive carbon oxide emission source that would otherwise release greenhouse gas into the atmosphere. The Proposed Regulations also exclude certain facilities that produce carbon dioxide from natural carbon-dioxide bearing formations or subsurface springs.

Application

The Proposed Regulations are proposed to apply to taxable years beginning on or after the date the final regulations are published in the federal register. However, until final regulations are adopted, taxpayers may rely on these Proposed Regulations for taxable years beginning on or after February 9, 2018 as long as they apply the Proposed Regulations in their entirety and in a consistent manner.

¹ All section references are to the Internal Revenue Code of 1986, as amended time to time (the “Code”), and to the Treasury Regulations promulgated thereunder.

² For taxable years beginning in a calendar year after 2016 and before 2027, the applicable dollar amount is established by a linear interpolation between \$22.66 and \$50 for each calendar year during such period, and after 2026, equal to the product of \$50 and the inflation adjustment factor.

³ While the Section 45Q(f)(3)(B) Election must be made on a timely filed return, the Proposed Regulations allow a limited window for the election to be made on an amended return for taxable years ending after February 9, 2018 but before a date yet to be determined.

⁴ Mass balance accounting is a method used to compute the net amount of sequestered qualified carbon oxide (as determined in accordance with procedures set forth in Subpart RR or the ISO Standard).

⁵ The International Organization for Standardization (“ISO”) developed the ISO Standard to qualify and document the total carbon dioxide that is stored in connection with EOR.

⁶ The draft of the Proposed Regulations initially submitted in March, 2020 to the Office of Information and Regulatory Affairs (for White House review of regulations, which has become a standard process in recent years) proposed a 3-year recapture period, which would have presented less economic risk to investors. It is unclear why the 3-year recapture period was increased to 5 years in the published Proposed Regulations. However, a Department of the Treasury’s [report](#) dated April 15, 2020, that found that certain taxpayers have improperly claimed approximately \$900 million of 45Q Credits for projects with no approved MRV plans (87% of the total 45Q Credits claimed by such taxpayers), may have affected the change.

This memorandum is a summary for general information and discussion only and may be considered an advertisement for certain purposes. It is not a full analysis of the matters presented, may not be relied upon as legal advice, and does not purport to represent the views of our clients or the Firm. Arthur V. Hazlitt, an O’Melveny partner licensed to practice law in New York, Alexander Roberts, an O’Melveny counsel licensed to practice law in New York, and Dawn Lim, an O’Melveny associate licensed to practice law in New York, contributed to the content of this newsletter. The views expressed in this newsletter are the views of the authors except as otherwise noted.

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