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IRS Issues Proposed Regulations on Carbon Oxide Sequestration Credit and Provides Clarification

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Recently issued proposed regulations for the carbon oxide (i.e., carbon monoxide and carbon dioxide) sequestration credit provide certainty for developers and investors on credit eligibility requirements.

In particular, the proposed regulations provide helpful guardrails with respect to tax credit recapture and clarify that enhanced oil recovery (“EOR”) operators do not need to comply with existing U.S. Environmental Protection Agency (“EPA”) regulations on secure geological storage—referred to as “Subpart RR”—in order for the activity to be credit eligible.

The clarifications provided by the proposed regulations, if finalized, may unlock investment in carbon capture and sequestration technologies.

Background

In 2018, as part of the Bipartisan Budget Act of 2018 (“BBA 2018”), Congress significantly enhanced the tax credit available for carbon oxide capture and sequestration.

Specifically, for carbon capture equipment originally placed in service at a qualified facility after the effective date of BBA 2018 (February 9, 2018), the credit rate is \$20.22 per metric ton of carbon oxide that is captured and used as a tertiary injectant during 2020 and the credit rate increases linearly to \$35 per metric tons in 2026. The credit rate is adjusted for inflation thereafter. For carbon oxide that is

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permanently stored but not used as a tertiary injectant, the credit rate is \$31.77 per metric ton during 2020 and increases linearly to \$50 per metric ton in 2026. Similarly, the credit rate is adjusted for inflation thereafter.

The credit is available for a 12-year period beginning with the date that the carbon capture equipment is placed in service. The credit is claimed by the taxpayer that owns the carbon oxide capture equipment and physically *or contractually* ensures the capture and disposal, injection, or utilization of the qualified carbon oxide. The rules also provide an election that allows the taxpayer that owns the carbon capture equipment to allocate the credit to the person that acquires the carbon oxide and physically undertakes geological storage, disposal, injection, or utilization of the qualified carbon oxide.

Taxpayers that:

- Owned carbon capture equipment that was placed in service prior to the effective date of the BBA (February 9, 2018),
- Capture at least 500,000 metric tons of carbon oxide in a tax year, and
- Did not claim the prior-law carbon dioxide sequestration credit,

Can claim the credit available under BBA 2018 for a 12-year period beginning February 9, 2018.

To be eligible for the credit, the taxpayer must begin construction of a carbon capture equipment project prior to January 1, 2024.

Proposed Regulations

Carbon Capture Equipment

Because the credit is claimed by the taxpayer that owns the carbon capture equipment, taxpayers have been looking for clarity as to what types of property would be considered carbon capture equipment for this purpose.

Generally, the proposed regulations provide 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.¹ These components of property are those necessary to compress, treat, process, liquefy, pump, or perform some other physical action to capture qualified carbon oxide.²

¹ Proposed section 1.45Q-2(c). Unless otherwise indicated, section references are to the Internal Revenue Code of 1986, as amended (the “Code”) or the applicable regulations promulgated pursuant to the Code (the “regulations”).

² Proposed section 1.45Q-2(c)(2).

Carbon capture equipment may be used for:

- 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.³

The proposed regulations provide an inclusive list of 40 items that are properly treated as carbon capture equipment components.⁴ The proposed regulations go on to provide a list of excluded components. Notably, pipelines are generally an excluded component, with one enumerated exception:

[A] gathering and distribution system that collects carbon oxide captured from a qualified facility...for the purpose of transporting that carbon oxide away from the qualified facility...to a pipeline used to transport carbon oxide from multiple taxpayers is carbon capture equipment.⁵

Qualified Facility

The carbon oxide sequestration credit is available to taxpayers that either capture carbon oxide from the ambient air or capture it from an “industrial facility.”

Taxpayers have been seeking clarity on what constitutes an industrial facility for this purpose.

The proposed regulations provide that a qualified facility is a facility that produces a carbon oxide stream from a fuel combustion source, a manufacturing process, or a fugitive CO-emissions source that absent capture, would be released into atmosphere.

It does not include carbon dioxide production wells at natural carbon-dioxide formations. A deposit of natural gas that contains less than 10 percent of carbon oxide by volume is not a natural carbon-dioxide formation.

Emissions and Capture Requirements

To qualify for the carbon oxide sequestration credit, taxpayers must capture and sequester a minimum amount of carbon oxide per tax year.

Facilities that acquire carbon oxide from the ambient air must capture and sequester at least 25,000 metric tons of qualified oxide during the tax year.

For qualified facilities other than electric generating facilities, taxpayers generally must capture and sequester 100,000 metric tons of carbon oxide per tax year. For electric generating facilities, taxpayers

³ Proposed section 1.45Q-2(c)(1)(i)-(iii).

⁴ Proposed section 1.45Q-2(c)(2).

⁵ Proposed section 1.45Q-2(c)(3).

must capture and sequester at least 500,000 metric tons of carbon oxide per tax year. A lower threshold of 25,000 metric tons is available if the carbon oxide is:

- Fixated through photosynthesis or chemosynthesis, such as through growing algae or bacteria;
- Chemically converted to a material or chemical compound in which the carbon oxide is securely stored; or
- Used for any other purpose of which a commercial market exists, as determined by Treasury guidance.

Taxpayers were concerned that if the capture and sequestration thresholds were applied based on a tax year basis, they might not meet the threshold in the first year of production.

The proposed regulations provide an annualization rule for the first tax year in which carbon capture equipment is placed in service at a qualified facility.⁶ This rule allows taxpayers to satisfy the production threshold requirements discussed above on a pro rata basis. For instance, if carbon capture equipment is placed in service at an electric generating facility on June 30 and the taxpayer is a calendar year taxpayer, the taxpayer may claim the carbon oxide sequestration credit if the taxpayer captures and sequesters at least 250,000 metric tons in the first year. However, under the annualization rule, the credit allowed remains limited to the actual amounts of qualified carbon oxide captured and disposed of, injected, or utilized in the tax year, and taking advantage of the annualization rule does not permit the taxpayer to claim the credit in the thirteenth year after the year the carbon capture equipment was placed in service.

Contractual Disposal Arrangement

As outlined above, the credit is claimed by the person that both owns the carbon capture equipment and physically *or contractually* ensures the capture and disposal, injection, or utilization of the qualified carbon oxide.

Taxpayers were looking for clarification as to what contractual terms would be necessary to satisfy the disposal requirements. The proposed regulations provide:

A taxpayer is not required to physically carry out the disposal, injection, or utilization of qualified carbon oxide to claim the section 45Q credit if the taxpayer contractually ensures in a binding written contract that the party that physically carries out the disposal, injection, or utilization of the qualified carbon oxide does so in the manner required under section 45Q and [the proposed regulations].

⁶ Proposed section 1.45Q-2(g)(3).

For these purposes, a written contract is only binding if it is:

- Enforceable under state law against both the taxpayer and the party that physically carries out the disposal, injection, or utilization of the qualified carbon oxide; and
- Does not limit damages to a specified amount.

Each contract, along with the parties thereto, must be reported to the IRS annually, on a Form 8933, by each party to the contract. In addition to the information required by Form 8933, taxpayers must also include four pieces of additional information:

- Name and TIN of the taxpayer to whom the credit is attributable
- Name and TIN of each party with whom the taxpayer has entered into a contract to ensure the disposal, injection, or utilization of qualified carbon oxide
- Number of metric tons of qualified carbon oxide each contracting party disposes of, injects, or utilizes on behalf of the contracting taxpayer each tax year
- Special EPA information if there is disposal in secure geological storage or the use of qualified carbon oxide as a tertiary injectant in enhanced oil or natural gas recovery⁷

Taxpayers were also looking for clarification on the election to allocate the credit to the person that contractually ensures the capture and disposal, injection, or utilization of the qualified carbon oxide. Specifically, taxpayers wanted to know if this was an annual election and whether the taxpayer could allocate some, but not all, the credit in a given year.

The proposed regulations clarify that the election to allocate the credit to the person that contractually ensures the capture and disposal, injection, or utilization of the qualified carbon oxide can be made annually and that the taxpayer can elect to allocate only a portion of the credit to the counterparty. Further, the taxpayer can allocate the credit to multiple counterparties if more than one person is disposing of or utilizing the carbon oxide.

Taxpayers were also looking for clarification as to whether a counterparty that is using the carbon oxide as a tertiary injectant—specifically EOR operators—would have to comply with the EPA requirements for secure geological storage—so-called Subpart RR. A non-docketed service advice review issued by the IRS indicated that they would be required,⁸ but most EOR operators did not comply with these rules.

⁷ Proposed section 1.45Q-1(h)(2)(iv).

⁸ IRS NSAR 20183701F (May 3, 2013). Written determinations such as this represent the IRS's analysis of the law as applied to a taxpayer's specific facts, and these type of written determinations are not intended to be relied on by third parties and may not be cited as precedent. Section 6110(k). They do, however, provide an indication of the IRS's position on the issues addressed. Taxpayers with EOR projects generally complied with the reporting requirements of 40 C.F.R. Part 98, Subpart UU. Subpart UU regulations govern the GHG reporting requirements associated with facilities that otherwise inject CO₂ into the subsurface generally.

The proposed regulations clarify that EOR operators are not required to comply with the EPA Subpart RR rules to prove that there has not been any leakage of carbon oxide as long as they comply with International Organization for Standardization (ISO) rules called CSI/ANSI ISO 27916:19, Carbon Dioxide Capture, Transportation and Geological Storage – Carbon Dioxide Storage Using Enhanced Oil Recovery (CO₂-EOR). Under these rules, documentation must be provided to a qualified independent engineer or geologist who must annually certify that the documents provided, including the mass balance calculations as well as information regarding monitoring and containment assurance, are accurate and complete. There are not, however, any EPA reporting requirements under these rules.

Recapture

The carbon oxide sequestration credit is recaptured if carbon oxide for which a credit has been claimed ceases to be captured, disposed of, or used as a tertiary injectant. Recapture events are determined separately for each project involving capture, disposal, or use of qualified carbon oxide as a tertiary injectant.

Taxpayers were looking for clarification regarding how long the recapture would last and how the recapture would be administered by the IRS.

— *Recapture Period*

Under the proposed regulations, the recapture period begins on the date of first injection of qualified carbon oxide for disposal in secure geological storage or use as a tertiary injectant, and ends on the earlier of:

- Five years after the last tax year in which the taxpayer claimed a section 45Q credit, or
- The date monitoring ends under the requirements of the standards described in proposed section 1.45Q-3(b)(1) or (b)(2), relating to the EPA requirements for secured geological storage and tertiary injections, respectively.⁹

— *Computation of Recapture*

The amount of recaptured carbon oxide is equal to the amount by which the leaked amount of carbon oxide, in metric tons, in a given tax year, exceeds the amount of qualified carbon oxide disposed of in secure geological storage or used as a tertiary injectant in the tax year.¹⁰ Thus, if the leaked amount of carbon oxide does not exceed the amount of carbon oxide disposed of in secure geological storage or used as a tertiary injectant in the relevant tax year, there is no recapture amount and no further adjustments to prior tax years are needed.¹¹

⁹ Proposed section 1.45Q-5(f).

¹⁰ Proposed section 1.45Q-5(d).

¹¹ Proposed section 1.45Q-5(g)(1).

The recapture amount is equal to the product of the quantity of recaptured carbon oxide (in metric tons) and the appropriate credit rate.¹²

Given that the credit rate is different for each tax year, taxpayers were also looking for clarification on what credit rate would apply for the year of the recapture.

The proposed regulations clarify that recapture amounts are calculated on a last-in-first-out basis (LIFO), meaning that to the extent there is recapture in a particular year, the recapture will be deemed attributable first to the prior tax year, then to the tax year before that, and then up to a maximum of the fifth preceding year.¹³ For example, if a taxpayer captures 1,000,000 metric tons in 2025 and 800,000 metric tons in 2026, and then has a recapture of 1,200,000 metric tons in 2027, the recapture applies first to the 800,000 metric tons captured in 2026 at the 2026 rate of \$50.00 and the remaining 400,000 metric ton of recapture is applied against the 1,000,000 metric tons captured in 2025 at the credit rate of \$46.96.

A taxpayer may be subject to recapture in a given tax year even if it no longer owns an interest in the activity. Further, if multiple taxpayers were allocated tax credits in a prior year, the recapture is applied to those taxpayers on a pro rata basis based on the percentage of tax credits that were allocated to them in the prior tax year.

Revenue Procedure 2020-12—issued by the IRS in early 2020—allows tax equity investors to acquire insurance protecting against the credit recapture risk inherent for a specific project so long as the insurance is acquired from an unrelated third party.¹⁴

Partnerships

Revenue Procedure 2020-12 provides a safe harbor (“Safe Harbor”) for tax equity partnerships that claim the carbon oxide sequestration credit. The Safe Harbor is very similar to the safe harbor for wind production tax credit partnerships discussed in Revenue Procedure 2007-65, with a couple significant differences discussed below.

First, Revenue Procedure 2020-12 requires a partnership to allocate the carbon oxide sequestration credit in the same manner it allocates receipts from its activities relating to carbon oxide sequestration. If the partnership does not receive payments for its activities relating to carbon oxide sequestration, the credit must be allocated in the same manner as the partners’ distributive shares of the loss or deduction associated with the cost of the capture and disposal of the qualified carbon oxide.

Additionally, the Safe Harbor only requires 50 percent of an investor’s investment to be fixed and determinable with no contingencies in amount or certainty of payment.¹⁵ This is a favorable provision

¹² Proposed section 1.45Q-5(e).

¹³ Proposed section 1.45Q-5(g)(2).

¹⁴ Rev. Proc. 2020-12, Section 4.08, 2020-11 I.R.B. 511 (Feb 19, 2020).

¹⁵ Rev. Proc. 2020-12 Section 4.04. Compare to the 75 percent requirement in Rev. Proc. 2007-65 Section 4.04, 2007-2 C.B. 967 (Oct. 9, 2007).

for tax equity structuring as it allows an investor to defer up to 50 percent of its total overall investment and make contributions as the credits are earned. This type of arrangement is commonly referred to as a "PAYGO" arrangement.

Summary

The proposed regulations along with Revenue Procedure 2020-12 provide taxpayers with more certainty about the federal tax implications of carbon capture transactions that qualify for the carbon oxide sequestration credit. Provisions that provide added clarity include: (1) the absence of a requirement for EOR operators to comply with EPA regulations under Subpart RR; (2) the definition of an industrial facility; (3) the application of the annualization test for the first year of production; (4) the terms required for disposal under a contractual agreement; (5) how the recapture provisions apply; and (6) how the credits may be allocated in a partnership structure. The clarity provided by the proposed regulations may unlock investment in carbon capture and sequestration technologies.

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