

# Guidance on Carbon Capture and Sequestration Tax Credit Provides Clarity for Developers and Investors

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The Treasury Department and the Internal Revenue Service (IRS) recently released long-awaited proposed regulations regarding the carbon capture and sequestration tax credit provided under Section 45Q of the Internal Revenue Code (Section 45Q Credit). The proposed regulations, together with IRS guidance issued earlier this year, provide welcome certainty to developers and investors that have delayed moving forward with carbon capture projects due to questions regarding how to properly qualify for Section 45Q Credits, and how such credits may be recaptured. In particular, the guidance clarifies:

- How to timely begin construction of a project;
- How to contract for carbon oxide sequestration;
- Acceptable carbon oxide storage standards;
- How to demonstrate carbon oxide utilization;
- When and how credits are recaptured;
- How to transfer credits; and
- When credits allocated through a partnership flip will be respected.

However, there are still certain issues regarding the qualification for, and recapture of, Section 45Q Credits that would benefit from further guidance.

A taxpayer may rely on the proposed regulations for tax years beginning on or after February 9, 2018, provided the taxpayer applies the proposed regulations in their entirety and in a consistent manner. Comments on the proposed regulations must be submitted by August 3, 2020.

## Background

In 2018, Congress expanded Section 45Q, making the credit available to an owner of carbon capture equipment that is placed in service at a qualified facility on or after February 9, 2018, for the 12-year period from the date such equipment is placed in service. The credit is provided for each metric ton of qualified carbon oxide captured by such equipment and sequestered by being (i) disposed of in secure geological storage (referred to as disposal), (ii) used as a tertiary injectant in a qualified enhanced oil or natural gas recovery project and disposed of in secure geological storage (referred to as injection), or (iii) utilized in a manner described in Section 45Q(f)(5) (referred to as utilization and, together with disposal and injection, sequestration).<sup>1</sup>

The amount of the Section 45Q Credit depends on the year in which qualified carbon oxide is captured and sequestered, and whether such qualified carbon oxide is disposed, injected or utilized. For each metric ton of qualified carbon oxide that is disposed, the Section 45Q Credit is \$31.77 in 2020, and increases linearly each year to \$50 in 2026; thereafter, the \$50 credit amount is adjusted for inflation. For each metric ton of qualified carbon oxide that is injected or utilized, the Section 45Q Credit is \$20.22 in 2020, and increases linearly each year to \$35 in 2026; thereafter, the \$35 credit amount is adjusted for inflation.

<sup>1</sup> Prior to the Bipartisan Budget Act of 2018 (BBA), Section 45Q Credits were smaller in amount and only available (i) with respect to captured carbon dioxide, (ii) to taxpayers who physically sequestered carbon dioxide (and not to those who simply owned the relevant equipment), (iii) for the first 75 million metric tons of carbon dioxide captured in a given year, and (iv) with respect to disposal and injection (defined below). Due to the limitations of pre-BBA Section 45Q, there was limited interest in constructing and financing projects eligible for Section 45Q Credits. This client alert only addresses Section 45Q, as amended by the BBA.

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To qualify for the Section 45Q Credit, an owner of carbon capture equipment can either physically sequester the relevant qualified carbon oxide itself or “contractually ensure” that the relevant qualified carbon oxide is sequestered, subject to recapture of the credits. Additionally, an owner of carbon capture equipment can elect to transfer its Section 45Q Credits to a party with whom the owner contracts for sequestration.

Following the 2018 expansion of the Section 45Q Credit, carbon capture developers, prospective investors and other stakeholders requested guidance on a number of open issues. In particular, there were questions regarding (i) the definition of a qualified facility, (ii) how to “contractually ensure” sequestration, (iii) what constitutes “secure geological storage,” for purposes of disposal and injection, (iv) what qualifies as “utilization,” and how a taxpayer could demonstrate utilization, (v) recapture of Section 45Q Credits, (vi) transferring Section 45Q Credits, and (vii) allocating Section 45Q Credits in a tax equity transaction. The proposed regulations, together with IRS guidance issued earlier this year, provide some welcome clarity. However, there remain a number of important issues that have yet to be addressed in guidance.

## Qualified Facility

A Section 45Q Credit is only available for qualified carbon oxide captured with carbon capture equipment that is placed in service at a “qualified facility.” Under the statute, a “qualified facility” is any industrial facility, electricity generating facility or direct air capture facility, the construction of which begins before January 1, 2024, if (i) construction of carbon capture equipment begins before such date, or (ii) the original planning and design for such facility includes installation of carbon capture equipment. Additionally, the carbon capture equipment must meet certain minimum carbon oxide capture thresholds, which are dependent on the carbon oxide emissions at the qualified facility.<sup>2</sup>

In February 2020, the IRS issued Notice 2020-12, providing guidance on the determination of when construction has begun on a qualified facility or on carbon capture equipment, and on the definitions of industrial facility and direct air capture facility. Generally, the guidance followed prior IRS guidance on when construction has begun on a wind, solar or other renewable energy facility (Prior Construction Guidance). Specifically, the IRS provided two methods to establish the beginning of

construction: (i) begin physical work of a significant nature (Physical Work Test), or (ii) pay or incur 5% or more of the total cost of the qualified facility or carbon capture equipment (Five Percent Safe Harbor). Similar to the Prior Construction Guidance, Notice 2020-12 provides (i) that whether construction begins under the Physical Work Test or Five Percent Safe Harbor, there must be continuous progress toward completion of the facility once construction has begun (Continuity Requirement), and (ii) a safe harbor, where the Continuity Requirement will be deemed satisfied if a taxpayer places a qualified facility or carbon capture equipment in service by the end of a calendar year that is no more than six calendar years after the calendar year during which construction of the qualified facility or carbon capture equipment began.

Notice 2020-12 also adopted the “80/20 Rule” for purposes of a retrofitted qualified facility or carbon capture equipment, which is consistent with the Prior Construction Guidance. Under the 80/20 Rule, a qualified facility or carbon capture equipment may qualify as originally placed in service even though it contains some used components of property, provided the fair market value of the used components of property is not more than 20% of the qualified facility or carbon capture equipment’s total value (the cost of the new components of property plus the value of the used components of property).

The proposed regulations generally include the definitions of industrial facility and direct air capture facility, and the 80/20 Rule, as provided in Notice 2020-12. Additionally, the proposed regulations helpfully provide that, for purposes of satisfying the minimum emissions and capture thresholds mentioned above, for the year in which carbon capture equipment is placed in service at a qualified facility, annualization of the amount of qualified carbon oxide emitted and captured is permitted. This prevents a taxpayer from having to delay placing equipment in service until the beginning of a new year simply for purposes of satisfying the minimum emission and capture thresholds.

## Contractually Ensure Sequestration

As discussed above, the Section 45Q Credit is attributable to the person that owns the relevant carbon capture equipment and physically or “contractually ensures” the sequestration of qualified carbon oxide. Under the proposed regulations, a taxpayer contractually ensures the disposal, injection or utilization of qualified carbon oxide if the taxpayer enters into a “binding written contract” that requires the party that physically carries out the sequestration (the contractor) to do so in the manner required under Section 45Q and the proposed regulations. A “binding written contract” must be enforceable under state law against both the taxpayer and the contractor (or a predecessor or succes-

<sup>2</sup> A facility that emits not more than 500,000 metric tons of carbon oxide during the taxable year must capture at least 25,000 metric tons of qualified carbon oxide that is utilized. An electric generating facility not described in the preceding sentence must capture at least 500,000 metric tons of qualified carbon oxide during the taxable year. A direct air capture facility, or any other facility not described in the preceding two sentences, must capture at least 100,000 metric tons of qualified carbon oxide during the taxable year.

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sor of either) and cannot limit damages to a specified amount. IRS guidance in other contexts (generally concerning contracts for the purchase of property) provides that a contractual provision that limits damages to an amount equal to at least 5% of the total contract price will not be treated as limiting damages to a specified amount. The proposed regulations, however, do not include a similar exception, possibly due to a concern that it would be difficult to properly value these types of service contracts.

Additionally, the proposed regulations provide that contracts ensuring the sequestration of qualified carbon oxide must include commercially reasonable terms, provide for enforcement of the contractor's obligation to perform the sequestration of the qualified carbon oxide and obligate the contractor to comply with the relevant provisions of the proposed regulations.

Under the proposed regulations, the existence of, and specific information regarding, each contract must be reported annually to the IRS by each party to the contract, regardless of the party claiming the credit.

The proposed regulations make clear that a taxpayer may enter into multiple contracts with multiple parties for the sequestration of qualified carbon oxide. However, the proposed regulations do not address whether a contractor can enter into a subcontract for sequestration. For example, where an owner of carbon capture equipment enters into a contract with a contractor for the disposal of qualified carbon oxide, it is not clear that the contractor may in turn enter into a contract with a subcontractor for the disposal.

## Secure Geological Storage

Both disposal and injection require that qualified carbon oxide be disposed of in secure geological storage. Prior to the proposed regulations, IRS Form 8933 defined secure geological storage as storage in compliance with the Environmental Protection Agency (EPA) Greenhouse Gas Reporting Program, subpart RR.

In general, disposal storage facilities are required to comply with subpart RR, but under relevant EPA rules injection storage facilities may instead comply with a less burdensome reporting program (subject to certain exceptions). Commenters thus noted that the Form 8933 definition of secure geological storage burdened certain injection storage facility operators by requiring them to comply with subpart RR, solely for purposes of the Section 45Q Credit.

The proposed regulations helpfully provide that, for purposes of injection, secure geological storage includes storage in compliance with subpart RR or relevant International Organization for

Standardization (ISO) standards (ISO standards).<sup>3</sup> The proposed regulations do not, however, permit taxpayers to rely on compliance with state reporting rules as a further alternative, as had been requested by some commenters.

A taxpayer must annually certify the volume of qualified carbon oxide claimed for purposes of Section 45Q. Under the proposed regulations, the taxpayer may self-certify the volume of injected carbon oxide reported in compliance with subpart RR; however, for volumes of injected carbon oxide determined in compliance with the ISO standards, the taxpayer may prepare documentation internally, though such documentation must be provided to a qualified independent engineer or geologist who then must certify that the documentation provided is accurate and complete.

## Utilization

Section 45Q(f)(5) provides that utilization means (i) the fixation of qualified carbon oxide through photosynthesis or chemosynthesis, such as through the growing of algae or bacteria, (ii) the chemical conversion of qualified carbon oxide to a material or chemical compound in which such carbon oxide is securely stored, or (iii) the use of qualified carbon oxide for any other purpose for which a commercial market exists (other than injection), as determined by the Treasury secretary. Furthermore, the statute provides that the amount of qualified carbon oxide utilized is equal to the amount the taxpayer demonstrates, based upon an analysis of life cycle greenhouse gas emissions (LCA) and subject to such requirements as the Treasury secretary — in consultation with the Energy secretary and administrator of the EPA — determines appropriate, were (i) captured and permanently isolated from the atmosphere, or (ii) displaced from being emitted into the atmosphere.<sup>4</sup>

The proposed regulations provide that utilization measurement and a written LCA report must be performed by or verified by an independent third party, and that the report must contain documentation consistent with particular ISO requirements and guidelines<sup>5</sup> as well as a statement documenting the qualifications of the third party. Under the proposed regulations, the written

<sup>3</sup> Specifically, the ISO standards permitted by the proposed regulations are those endorsed by the American National Standards Institute under CSA/ANSI ISO 27916:19, Carbon dioxide capture, transportation and geological storage — Carbon dioxide storage using enhanced oil recovery (CO<sub>2</sub>-EOR).

<sup>4</sup> Life cycle greenhouse gas emissions generally mean the aggregate quantity of greenhouse gas emissions related to the full product life cycle, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential according to applicable EPA guidance.

<sup>5</sup> Specifically, the proposed regulations require documentation consistent with ISO 14044:2006, "Environmental management — Life cycle assessment — Requirements and Guidelines."

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LCA report will be subject to a technical review by the Department of Energy (DOE), and the IRS, in consultation with the DOE and EPA, will determine whether to approve the LCA.

The proposed regulations reserved on guidance regarding other commercial markets for utilization and standards of adequate life cycle analysis, and the Treasury Department and IRS requested comments on these issues.

## Recapture

Section 45Q requires the Treasury Department to issue regulations regarding the recapture of Section 45Q Credits previously claimed for disposal or injection when qualified carbon oxide ceases to be disposed of in secure geological storage. The lack of recapture guidance prior to the proposed regulations was a major point of uncertainty for carbon capture developers and potential investors. The proposed regulations provide welcome guidance, but there are still some outstanding questions.

Despite requests from certain commenters, the proposed regulations do not provide a recapture safe harbor (*e.g.*, if qualified carbon oxide was disposed in a specific, approved manner, there could be no recapture). However, the proposed regulations do provide that recapture is not required for leaks caused by certain events not related to the selection, operation or maintenance of a storage facility, such as volcanic activity or terrorist attack. Additionally, the preamble to the proposed regulations references Revenue Procedure 2020-12 (discussed below), which expressly provides that a taxpayer may obtain third-party recapture insurance to protect against recapture. Such insurance may be particularly desirable for projects with tax equity investors that want to manage risks regarding investments in projects that claim Section 45Q Credits.

The proposed regulations provide that Section 45Q Credits are subject to a five-year lookback period. This generally means that, if there is a leak of qualified carbon oxide with respect to which a taxpayer claimed Section 45Q Credits, the taxpayer's previous five years' Section 45Q Credits are subject to recapture. Specifically, under the proposed regulations, if in a taxable year a taxpayer, storage facility operator or regulatory agency determines that qualified carbon oxide has leaked into the atmosphere, the taxpayer will have a recapture amount if the leaked amount of qualified carbon oxide exceeds the amount of qualified carbon oxide disposed or injected by the taxpayer in that taxable year. (A leaked amount otherwise reduces the amount disposed or injected in that year for purposes of calculating the taxpayer's Section 45Q Credits.) The proposed regulations provide that any recapture amount is calculated on a last in, first out (LIFO) basis for purposes of determining the amount of qualified carbon

oxide recaptured and the appropriate credit rate to use in calculating such recapture (*i.e.*, the excess leaked qualified carbon oxide is deemed attributable first to the first preceding year, then to the second preceding year, and so on, up to the fifth preceding year). For example, if a taxpayer claims Section 45Q Credits with respect to 1 million metric tons of qualified carbon oxide disposed in each of years 1 through 6, and in year 7 all 6 million metric tons leak into the atmosphere (and no qualified carbon oxide is disposed), under the proposed regulations only Section 45Q Credits claimed by the taxpayer in years 2 through 6 are subject to recapture.

If leaked qualified carbon oxide was captured from multiple units of carbon capture equipment that were not under common ownership, or is attributable to qualified carbon oxide with respect to which multiple taxpayers claimed Section 45Q Credits (*e.g.*, if ownership of the relevant equipment was transferred), the recapture amount must be allocated on a pro rata basis.

Because the proposed regulations measure recapture based on when credits were claimed by the taxpayer but do not address situations in which the taxpayer disposed or injected qualified carbon oxide in different storage facilities, it is unclear how the lookback period and LIFO approach used by the proposed regulations apply in such situations. For example, where a taxpayer disposed qualified carbon oxide from one project in Storage Facility A in year 1 and in Storage Facility B in years 2 through 6, and there is a leak at Storage Facility A in year 7, it is unclear whether the leaked carbon oxide from Storage Facility A in year 7 is subject to recapture and, if so, whether such recapture would be calculated using the LIFO approach (*i.e.*, using rates from years 2 through 6, as appropriate). Further guidance on these issues is needed.

## Transferring Credits

Section 45Q(f)(3)(B) provides that an owner of carbon capture equipment entitled to claim a Section 45Q Credit (electing taxpayer) may elect to allow a contractor that disposes, injects or utilizes the qualified carbon oxide to instead claim the Section 45Q Credit (Section 45Q(f)(3)(B) Election).

The proposed regulations provide welcome flexibility in making Section 45Q(f)(3)(B) Elections. Specifically, the proposed regulations authorize these elections to be made on an annual basis on a timely filed income tax return (but not an amended return), for all or a portion of an electing taxpayer's available Section 45Q Credits. The proposed regulations also authorize the elections to be made for a single or multiple contractors. These rules should allow potential electing taxpayers and contractors to make tax efficient Sections 45Q(f)(3)(B) Elections on a year-by-year basis.



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## Potential Tax Equity Market and Partnership Flip Safe Harbor

The developer (or “sponsor”) of a project that generates tax credits (*e.g.*, a wind energy project that generates production tax credits, or a solar energy project that generates an investment tax credit) often does not have sufficient taxable income to efficiently utilize such credits. A developer will thus frequently look for a “tax equity investor,” who can efficiently utilize such credits, to provide an equity investment in the project. The investment will be structured to allocate tax credits and certain other tax attributes generated by the project (such as depreciation) to the tax equity investor in an efficient manner.

Although such tax equity investments are common for many tax credit-generating projects, the tax equity market for carbon capture projects is nascent, as developers and potential tax equity investors have been hesitant to build and finance projects without detailed guidance on Section 45Q. It thus remains to be seen what financing structures are generally preferred by developers and tax equity investors in this space. However, tax equity investor demand for Section 45Q Credits can be expected to be strong, particularly considering that production tax credits for qualifying wind projects, and the investment tax credit for qualifying solar projects, will generally phase down and expire as carbon capture projects are constructed and the amount of a Section 45Q Credit increases.

A structure that has been widely used in other tax equity transactions is a “partnership flip,” where a developer and one or more tax equity investors form a “project company” (usually a multiple member limited liability company) that is treated as a partnership for tax purposes to own and operate the relevant tax credit-generating property. A tax partnership provides a developer and investors flexibility to allocate project company tax items in a manner that ensures the majority of tax credits and other relevant tax attributes are allocated to tax equity investors that can use them, while distributing cash generated by the project company in a different proportion than the tax allocations.

In a typical partnership flip transaction, a developer contributes the relevant property to the project company and one or more tax equity investors purchase interests in the project company from the developer or the project company. The majority of taxable income, losses and tax credits (and usually a smaller portion of cash distributions) are then allocated to the investors until the investors hit a target after-tax rate of return (or, in some transactions, until a specified date). Once the investors hit the target rate of return (or upon the specified date), the tax allocations “flip,” such that the majority of taxable income, losses and any remaining tax credits

are allocated to the developer. A developer will often have a call option to purchase (and/or an investor will have a put option to sell to the developer) an investor’s project company interest for fair market value at some point following the flip (though as discussed below, a developer call option is not permitted for carbon capture partnership flips under the relevant IRS safe harbor).

In February 2020, the IRS issued Revenue Procedure 2020-12, which provides a safe harbor under which a partnership flip structure will be respected for purposes of allocating Section 45Q Credits (Section 45Q Safe Harbor). The Section 45Q Safe Harbor generally sets forth similar requirements to those in prior IRS guidance that provided safe harbors for partnership flips used to allocate wind production tax credits and rehabilitation tax credits.

In general, the Section 45Q Safe Harbor requires that:

- The developer and each investor maintain a certain minimum interest in the project company, and the investor’s interest must constitute a bona fide equity investment;
- The value of the investor’s project company interest (i) be contingent upon the project company’s operations, separate from any tax attributes, and (ii) not be reduced through off-market fees or other arrangements (*e.g.*, management or developer fees, or disproportionate distributions);
- The investor make and maintain a minimum unconditional investment of at least 20% of the total fixed investment and reasonably anticipated contingent investment required to be made by the investor (though reductions below this amount for distributions of operating cash flow are permitted);<sup>6</sup>
- More than 50% of the investor’s fixed investment plus reasonably anticipated contingent investment (except for contributions to pay ongoing operating expenses) not be contingent (*e.g.*, on production generating Section 45Q Credits);<sup>7</sup>
- Neither the developer nor an investor have a call right to purchase the project company’s carbon capture equipment or an interest in the project company;
- An investor not have a put right requiring any person involved in the carbon capture transaction to purchase the investor’s project company interest at a price that is more than its fair market value;

<sup>6</sup> Additionally, the investor cannot be protected against loss of any portion of this minimum investment through any arrangement with a person involved in the carbon capture project.

<sup>7</sup> This requirement is similar to that traditionally employed by many partnerships that own and operate refined coal production facilities eligible for production tax credits under Section 45. *See, e.g.*, AM 2018-002 (Feb. 28, 2018) (IRS National Office memorandum providing general guidelines for analyzing refined coal credit transactions).

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- No person involved in any part of the project company guarantee or otherwise insure an investor's ability to claim Section 45Q Credits or the value of such credits if the IRS challenges the partnership flip structure. Further, no person involved in any part of the project company may guarantee that an investor will receive distributions from the project company or consideration in exchange for its project company interest (except for a fair market value put right, as described above);<sup>8</sup>
- The developer not lend an investor funds to acquire the investor's project company interest; and
- Allocations of project company tax items (including Section 45Q Credits) satisfy the relevant partnership tax rules.

The specific requirements of the Section 45Q Safe Harbor are detailed and complex, and any project company seeking to comply with the safe harbor must carefully evaluate its transaction structure. In particular, because the Section 45Q Safe Harbor requires the investor's partnership interest to constitute a bona fide equity investment, it will be important to analyze how courts have eval-

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<sup>8</sup> Importantly, this does not prohibit an investor from procuring insurance, including recapture insurance, from persons unrelated to the carbon capture project. Additionally, the Section 45Q Safe Harbor expressly permits certain guarantees (including guarantees to perform acts necessary to claim Section 45Q Credits) and provides that an arm's-length offtake agreement does not constitute a guarantee, even if such agreement contains "supply all," "supply-or-pay," "take all," "take-or-pay" or "securely-store-or-pay" provisions.

uated "bona fide partnership" questions in recent cases involving tax equity partnerships that involved the rehabilitation tax credit and the refined coal production tax credit.

There are a number of outstanding issues regarding the use of tax equity for carbon capture projects, including via a partnership flip structure. In particular, it is unclear whether the Section 45Q Safe Harbor can apply to a project company that does not own the relevant carbon capture equipment but instead acts as a contractor for the sequestration of qualified carbon oxide that is entitled to the applicable Section 45Q Credits as a result of a Section 45Q(f)(3)(B) Election. Further guidance on these issues would be welcome.

## Conclusion

The proposed regulations, together with the IRS guidance from earlier this year, provide vital guidance to developers and potential investors in the carbon capture industry. The additional guidance should allow more carbon capture projects to enter financing and development stages. However, as outlined above, certain issues remain unresolved, and as more projects move forward, further issues will likely arise. Careful planning and review will thus be needed to ensure a carbon capture project can properly utilize Section 45Q Credits.