

A Primer on the Tax Credit for Carbon Oxide Sequestration

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In this article, the authors explain how 2018 amendments to the section 45Q credit, along with proposed regulations and recent IRS guidance, affect the tax benefits available from investing in carbon capture, use, and sequestration projects. They also identify remaining issues that Treasury and the IRS should address.

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Carbon capture and sequestration adapt proven technologies from the oil and gas industry to reduce greenhouse gas emissions from industrial sources like power, cement, and chemical plants. These technologies can be expensive to implement on an industrial scale, requiring large upfront capital investment and significant ongoing operating costs. Traditionally, the economic incentives have been insufficient for investors to pursue industrial-scale carbon capture and sequestration projects. Like renewable energy projects, such as wind and solar, additional economic incentives were necessary before investors would commit capital to carbon capture projects. The section 45Q tax credit for carbon oxide sequestration, enacted in 2008 and significantly modified in 2018, provides a substantial incentive for taxpayers to invest in these projects.

Despite the enactment and subsequent amendments enhancing the credit, investment was held back by a lack of regulatory guidance on how critical aspects of the credit would apply, or guidance on how tax equity investors could avail themselves of the credit. The IRS and Treasury recently issued Rev. Proc. 2020-12, 2020-11 IRB 511, Notice 2020-12, 2020-11 IRB 495, and prop. reg. section 1.45Q-1 to -5. Taxpayers may rely on this guidance when making investments in carbon capture, use, and sequestration projects. These are important developments for an industry with great potential for reducing greenhouse gas emissions — particularly carbon dioxide (CO₂).

In 2018 Congress amended section 45Q to include provisions to increase the dollar value of the credits to up to \$50 per metric ton of captured carbon oxide (CO), allow taxpayers credits from carbon capture equipment installed on plants owned by third parties, create a credit for capturing CO from the ambient air (direct air capture), allow credits for use of CO in commercial products, and permit transfers of

credits. As described below, the 2018 legislation, along with the recent guidance and proposed regulations, should provide taxpayers with more confidence about the tax benefits available from investing in carbon capture, use, and sequestration projects.

I. Carbon Capture and Sequestration

Carbon capture and sequestration uses existing technologies to capture waste carbon dioxide, usually from large industrial sources, such as biomass power plants, transport it to a storage site, and deposit or use it where it will be prevented from entering the atmosphere. Historically, CO₂ has been injected into underground oil formations to produce more oil than could normally be extracted as part of the enhanced oil recovery (EOR) process.

EOR technologies using CO₂ injection have been in use in the United States for several decades. CO₂ injected into a formation mixes with oil trapped in the pore spaces in reservoir rock, causing the oil to swell and move toward the production wells. Much of the injected CO₂ remains trapped in reservoir rock that has securely held oil and gas underground for millions of years. A portion of the CO₂ is extracted along with the oil and gas (and water) through the production wells, where it is recaptured and reinjected into the reservoir. Most of the CO₂ used in EOR traditionally has come from naturally occurring underground reservoirs, but some CO₂ operators have increased their use of CO₂ from industrial sources in recent years.

The technologies developed for use in EOR can also be deployed in carbon capture and sequestration projects that aren't associated with production of oil and gas. Because no commercial market exists for injecting CO₂ in a project that produces no saleable product, section 45Q offers a higher credit for these "pure sequestration" projects. Also, emerging technologies will allow direct air capture, in which CO₂ is taken from ambient air rather than a point source, and long-term use of CO₂ in products.

Carbon capture projects require significant investments in capture equipment and infrastructure, such as pipelines to transport CO from the point of capture to the sequestration site.

Absent section 45Q credits, taxpayers may not find it economical to capture and sequester CO₂ or other carbon oxides. Sequestration of CO₂, other than through EOR or other industrial uses, may have no associated revenue stream. Congress recognized that an economic incentive was necessary to encourage EOR operators to conduct EOR operations using CO from industrial sources that would otherwise be vented to the atmosphere or from direct air capture facilities that remove CO from the ambient air.

In 2008 Congress enacted the Energy Improvement and Extension Act, which included the first version of the section 45Q credit to encourage taxpayers to install carbon capture equipment on their industrial facilities and permanently sequester captured carbon oxide. The 2008 section 45Q credit is effective for facilities placed in service between October 2008 and February 8, 2018. The credit is for CO₂ sequestration of qualified CO₂ captured at a qualified facility and disposed of in secure geological storage within the United States.

The 2008 section 45Q credit allowed taxpayers a credit in the amount of \$10 per metric ton for CO₂ used in EOR and \$20 per metric ton for CO₂ not used in EOR (that is, pure sequestration). The 2008 credit was available only to owners of industrial facilities generating CO emissions who captured CO at the facility. The taxpayer that owned the facility could contract with third-party EOR operators to ensure secure geological storage. The 2008 credit also provided for the recapture of credits for CO₂ that ceased to be captured, securely stored, or used as a tertiary injectant.

Section 45Q, as enacted in 2018, provides new rules for credits for CO captured using carbon capture equipment placed in service before February 9, 2018, the date of enactment. The 2008 credit and credits under section 45Q for CO captured using carbon capture equipment placed in service before February 9, 2018, have a quantity limit. The 2008 credit expires in the year after the IRS, in consultation with the Environmental Protection Agency, certifies that 75 million metric tons of qualified CO₂ have been taken into account under the prior credit. In Notice 2020-40, 2020-25 IRB 952, the IRS reported that more than 72 million metric tons had been taken into account

under the 2008 credit and the current credit for carbon capture equipment placed in service before February 9, 2018.

The 2008 credit contained a mandate from Congress for Treasury to issue regulations, but the IRS and Treasury never promulgated any regulations. The IRS issued Notice 2009-83, 2009-44 IRB 588, which included interim guidance on who may claim the credit, what is qualified CO₂ and a qualified facility, how to establish secure geological storage of CO₂, and reporting and recordkeeping requirements. Other important issues were not covered, such as procedures for recapture in the case of leakage. Moreover, controversies soon arose between taxpayers and the IRS over the requirements for establishing secure geological storage for purposes of claiming the 2008 credit, see, for example, Internal Revenue Manual section 4.41.1.3.5 (IRS Oil & Gas Handbook outlining the IRS position on establishing secure geological storage), introducing further uncertainty and discouraging investment in carbon capture and sequestration projects.¹

II. The New Section 45Q Credit

Congress amended section 45Q in the Bipartisan Budget Act of 2018. New section 45Q provides tax credits for (1) the capture and sequestration of CO₂ and other CO from industrial sources that, absent capture and use or sequestration, would be vented to the atmosphere, and (2) the capture and use or sequestration of carbon oxides directly from ambient air. The new section 45Q credit increased the amounts of the credit that can be claimed for carbon oxides captured using carbon capture equipment and sequestered in secure geological storage.

It also added increased flexibility for contractual arrangements, so that the taxpayer claiming the credit no longer must own the industrial facility, the taxpayer can separately invest in carbon capture equipment, and the taxpayer can elect to transfer the credit. The new credit lowered the carbon capture threshold for

many facilities. It also expanded the qualifying types of gases and qualifying uses. Lastly, it eliminated the 75-million-metric-ton overall cap to the credit for carbon oxides captured using carbon capture equipment placed in service after February 8, 2018.

Like the 2008 credit, new section 45Q left many areas for Treasury and the IRS to provide guidance. The key provisions and the current guidance regarding the same are discussed below.

A. Credit Amount and Overall Cap

The credit amount under the new section 45Q credit is based on an “applicable dollar amount.” For CO that is used in EOR, the credit amount will increase each tax year by linear interpolation, beginning at \$12.83 per metric ton in tax years beginning after 2016, until it reaches \$35 per metric ton in the last tax year beginning before 2027. Thereafter, the credit will be adjusted annually for inflation.

For facilities under the prior credit, the prior credit continues with some modifications until the cap of 75 million metric tons is met. The new section 45Q credit does not have an overall cap on the credit. This greatly improves the credit, as it provides projects and developers with more certainty that the credit will be available once projects begin operations.

B. Beginning of Construction

Section 45Q permits credits for a 12-year period beginning the date that carbon capture equipment is placed in service at a qualified facility. Among other requirements, a construction of a qualified facility must begin before January 1, 2024, and either construction of carbon capture equipment must begin before that date or the original planning and design for the facility must include installation of carbon capture equipment. Because investors may struggle to complete carbon capture projects before the January 1, 2024, deadline, they will need to establish that they have begun construction before that date. The IRS issued Notice 2020-12, which provides guidance on the beginning of construction for purposes of meeting the effective dates for the credit.

The notice provides two tests to determine the beginning of construction: the “physical work

¹The IRS has provided no guidance on how resolution of these controversies under the 2008 credit may affect the cap of 75 million metric tons.

test” and the 5 percent safe harbor. Both methods are subject to a “continuity requirement” that the taxpayer continually progress toward completion of the qualified facility. This requirement can be met through a “continuity safe harbor” if the project is placed in service by the end of the calendar year that is no more than six years after the calendar year in which the beginning of construction occurs. If a taxpayer satisfies both the physical work test and the 5 percent safe harbor, described in more detail below, the IRS will deem the beginning of construction date to be the first date when one of the two tests is satisfied. The tests are similar, but not identical, to the safe harbor for determining the beginning of construction for certain renewable energy projects.

1. Physical work test.

Under the physical work test, beginning of construction is considered to have occurred when “physical work of a significant nature” begins — provided that the taxpayer thereafter maintains a continuous program of construction. Meeting the physical work test depends on the relevant facts and circumstances, focusing on the nature of the work performed rather than the amount or cost. Both on-site and off-site work count, but preliminary activities like planning or designing the facility do not.

Examples of allowable activities include manufacture of mounting equipment, manufacture of necessary components, manufacture of necessary equipment, excavation for and installation of foundations, and installation of gathering lines. Taxpayers may include work performed by others under a binding written contract entered into before manufacture, construction, or production of components of carbon capture equipment, except for work to produce components held or normally held in inventory.

2. The 5 percent safe harbor test.

The 5 percent safe harbor test is met when a taxpayer pays or incurs 5 percent or more of the total costs of the qualified facility or carbon capture equipment and makes a continuous effort to complete the facility or equipment. The total cost includes all costs that are part of the depreciable basis of the facility or equipment,

including costs associated with front-end engineering and design or other approaches to front-end planning. Specific rules apply to determine what constitutes a single project for purposes of the 5 percent safe harbor. The notice provides relief from failure to meet the 5 percent safe harbor because of cost overruns for a portion of projects with multiple facilities or multiple units of carbon capture equipment.

3. Continuity requirement.

The physical work test and 5 percent safe harbor both require the taxpayer to meet continuity requirements. The physical work test requires a taxpayer to maintain a continuous program of construction. The 5 percent safe harbor requires a taxpayer to make continuous efforts toward completion of the qualified facility or carbon capture equipment. Notice 2020-12 provides that disruptions beyond the taxpayer’s control will not cause the taxpayer to fail the continuity requirements, and it provides a list of potential, permissible disruptions, including delays caused by weather and natural disasters, permits, pipeline interconnection issues, manufacture of custom components, labor stoppages, and financing.

The notice also provides a safe harbor that the continuity requirements will be deemed satisfied if the taxpayer places the qualified facility or carbon capture in service by the end of the calendar year that is no more than six years after the calendar year in which construction begins. The safe harbor, which is two years longer than the continuity safe harbor in Notice 2018-59, 2018-28 IRB 196, can actually cover a period approaching seven years. For example, the continuity safe harbor will be met if construction on a project begins in January 2021 and the project is placed in service by December 31, 2027. The safe harbor is not extended for permitted disruptions.

C. The 80/20 Rule

The proposed regulations provide an 80/20 rule, such that a qualified facility or carbon capture equipment may qualify as originally placed in service, even though it contains some used components of property. The 80/20 rule is met if the fair market value of the used components of property is not more than 20

percent of the qualified facility or carbon capture equipment's total value (the cost of the new components of property plus the FMV of the used property).

D. Secure Geological Storage

Taxpayers claiming the section 45Q credit based on disposal, or use as a tertiary injectant followed by disposal, must establish that their qualified CO was disposed of in "secure geological storage." The statute further prescribes that this term includes storage in deep saline formations, oil and gas reservoirs, and coal seams that can't be mined. As noted above, the standard for establishing secure geological storage has generated significant controversy between taxpayers and the IRS.

Although Treasury and the IRS never issued regulations on secure geological storage under the 2008 credit, the IRS released Notice 2009-83. Notice 2009-83 referred to EPA regulations on underground injection control and greenhouse gas reporting, which were still being written at the time the IRS notice was issued. Since then, the International Organization for Standardization and the American National Standards Institute developed their own protocols for establishing and quantifying secure geological storage of CO (CAS/ANSI ISO 27916:19).

In the United States, taxpayers injecting into the subsurface must obtain an underground injection control well permit from the EPA under the Safe Drinking Water Act. Regarding injection of CO₂ into the subsurface, there are two potentially relevant classes of permit: classes II and VI. The EPA requires a Class II permit for traditional EOR projects when the injection is for the purpose of producing oil and gas. When the primary purpose of CO₂ injection is geological sequestration, the EPA requires a Class VI permit, which imposes additional requirements for the siting and construction of the well.

Class VI wells are required to comply with a stricter set of requirements under subpart RR of the EPA's greenhouse gas reporting rules (GHGR) than Class II wells. Traditional EOR projects, using Class II well standards, must comply with the less strict subpart UU, although they may opt into subpart RR reporting. Compliance with subpart RR requires an EPA-approved

monitoring and verification (MRV) plan, which includes reporting the amount of CO₂ permanently sequestered in the reservoir using a mass-balance computation.

Prop. reg. section 1.45Q-3 establishes the requirements for secure geological storage of qualified CO. If taxpayers are disposing of qualified CO in a manner other than for use in an EOR project, they must comply with subpart RR of the EPA's GHGR regulations and have an EPA-approved MRV plan. Taxpayers that use the qualified CO as part of a traditional EOR project, and in the process store qualified CO, have two options: (1) opt into compliance with subpart RR of the GHGR regulations and get an EPA-approved MRV plan; or (2) comply with subpart UU of the GHGR regulations, which do not require an EPA-approved MRV plan, and comply with CAS/ANSI ISO 27916:19.

Prop. reg. section 1.45Q-3 also establishes that taxpayers must report and certify the amount of qualified CO disposed of in secure geological storage on Form 8893. Taxpayers that comply with subpart RR of the GHGR regulations can self-certify the amount of qualified CO disposed of in secure geological storage. Taxpayers opting to comply with subpart UU of the GHGR regulations and CAS/ANSI ISO 27916:19 must obtain from a qualified independent engineer or geologist annual certifications of their documentation, computations, and monitoring and containment assurance.

Some of the comments the IRS received regarding secure geological storage argued that state standards on secure geological standards could also be used. However, the IRS rejected this suggestion, stating that it would be difficult to administer multiple state standards.

E. Credit Recapture

Section 45Q requires a taxpayer to recapture credits when qualified CO ceases to be captured, disposed of, or used as a tertiary injectant. Prop. reg. section 1.45Q-5 addresses recapture. The proposed regulations specify a "recapture period" during which a recapture event, such as a leak of qualified CO, can lead to recapture liability. They also address quantifying leaked qualified CO, calculating and reporting recapture liability, and allocating the liability among

multiple credit claimants. The rules governing calculation of recapture liability include a lookback period that effectively limits exposure to recapture to the credits claimed in the prior five years. The proposed regulations also provide that leakage resulting from actions not related to selection, operation, or maintenance of the storage facility, such as volcanic activity or a terrorist attack, do not trigger recapture.

A recapture event occurs when qualified CO for which a credit has been claimed ceases to be captured, disposed of, or used as a tertiary injectant during the recapture period. The recapture period begins on the date of the first injection of qualified CO for disposal in secure geological storage or use as a tertiary injectant, and it 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 subpart RR of the EPA's GHGR regulations or under the CSA/ANSI ISO 27916:19 standard. The preamble to the proposed regulations describes two critical subportions of the recapture period: the "post-credit-claiming period" and the "lookback period." The "post-credit-claiming period" is the five-year period after the taxpayer's last credit. A leak during this period can lead to recapture. Recapture is computed by allocating the leaked qualified CO to previously claimed credits on a last-in, first-out basis, going back no more than five years, which is the lookback period.

If qualified CO leaks to the atmosphere during the recapture period, the taxpayer may have recapture liability. Taxpayers must quantify the leak using the standards in subpart RR or CSA/ANSI ISO 27916:19. If the taxpayer elects to quantify using CSA/ANSI ISO 27916:19, an independent engineer or geologist must certify the quantity leaked. If the leaked quantity does not exceed the amount of qualified CO that the taxpayer disposed of in secure geological storage or used as a tertiary injectant during the year, there is no recapture liability. Instead, the taxpayer simply claims a credit for the net amount of qualified CO disposed of or used as a tertiary injectant during the year. To the extent that the leaked qualified CO exceeds the amount disposed of or used as a tertiary injectant during the year, the taxpayer is liable for recapture. The recapture

liability is computed based on the net amount leaked and the statutory credit rate. Because the credit rate changes from year to year, leaked qualified CO is attributed to credits claimed in prior years on a LIFO basis. That is, the net amount leaked will be attributed first to the first preceding year, then to the second preceding year, and so on, up to a maximum of the fifth preceding year (that is, the five-year lookback period). It has been reported that an initial draft of the proposed regulations included a shorter three-year lookback period, but that during the Office of Management and Budget's Office of Information and Regulatory Affairs' review of the proposed regulations, the lookback period was extended to five years in response to criticism of the three-year lookback period.

If an amount must be recaptured, the taxpayer must add the recapture amount to its tax due in the tax year of the leak. Thus, there is no need to file amended returns for prior years when the taxpayer initially claimed the credits that are being recaptured. If the leaked qualified CO was captured by multiple units of carbon capture equipment that are not commonly owned, the recapture liability is allocated among the owners of the equipment on a pro rata basis among the multiple units of carbon capture equipment, and each owner must report its portion of the recapture liability. Similarly, if the leak is attributable to qualified CO for which multiple taxpayers claimed credits, such as when ownership of the carbon capture equipment changed, or the owner elected to transfer a portion of its credit, the recapture liability is allocated pro rata among the taxpayers that claimed the credits.

A significant aspect of the proposed recapture regulations is that they treat qualified CO as fungible. The LIFO approach to computing the recapture amount and the pro rata approach to allocating recapture among owners of carbon capture equipment or suppliers of stored CO make sense only if each metric ton of CO is essentially equivalent, so that it is not necessary to determine which particular ton was leaked. The proposed regulations include several examples that illustrate this aspect of how the recapture provisions operate. The treatment of CO as fungible is critical to implementation of the credit

in an industrial setting in which CO is often transported from the point of capture to the point of injection via shared pipelines.

The IRS requested comments on how to apply the recapture provisions to section 45Q credits that are carried forward to future tax years because of insufficient income tax liability in the current tax year.

F. Election to Transfer Credit

Section 45Q(f)(3)(B) provides that the taxpayer to whom the credit is attributable may elect to transfer the credit to the person that disposes of the qualified carbon oxide, uses the qualified carbon oxide, or injects the qualified carbon oxide as a tertiary injectant. The proposed regulations provide guidance regarding who can make such an election as well as the time and manner for doing so. Elections are made annually, allowing parties to change this election from year to year. Elections can be for all or only a portion of the credit and can be for the benefit of multiple disposing parties. A disposing party can receive credits from multiple electing taxpayers. For example, a taxpayer with an EOR project can conduct disposal and claim credits from qualified CO capture projects owned by multiple electing taxpayers. The proposed regulations also prescribe rules for both electing and receiving parties to coordinate the reporting of elections on each party's return.

G. Carbon Capture Equipment

The term "carbon capture equipment" is not defined in the statute. The proposed regulations take a functional approach, defining carbon capture equipment to include all components of property used to capture or process qualified CO until the qualified CO is transported for disposal, injection and disposal, or use. This includes property used for separating, purifying, drying, and capturing qualified CO at an industrial facility, property used to remove qualified CO from the atmosphere via direct air capture, and property used to pressurize qualified CO. The proposed regulations include a fairly detailed list with specific examples of the types of equipment that may fall within the definition of carbon capture equipment.

H. Contractual Arrangements

In enacting new section 45Q, Congress significantly increased the pool of potential investors by allowing taxpayers to claim the credit for CO captured using carbon capture equipment that the taxpayer installs on an industrial facility owned by a third party. Taxpayers may claim the section 45Q credit if the credit is "attributable to" them under section 45Q(f)(3)(A) and prop. reg. section 1.45Q-1(h). For carbon capture equipment placed in service before February 9, 2018 (that is, before the amendments), the credit is attributable to the person who captures qualified CO, and either physically or contractually ensures the disposal, injection and disposal, or use of the qualified CO. For equipment placed in service after that date, a taxpayer can contract with a third party to operate the carbon capture equipment. Thus, the credit is attributable to the person who owns the carbon capture equipment and physically or contractually ensures the capture and disposal, injection and disposal, or use of the qualified CO.

Under the proposed regulations, taxpayers don't need to carry out the disposal, injection, or use of qualified CO, and instead may claim the credit if they enter into a binding written contract with another party under which that party (the disposing party) commits to physically carry out the disposal, injection and disposal, or use of the qualified CO in compliance with the proposed regulations. A taxpayer may contract with multiple disposing parties. The proposed regulations specify that the contracts must be in writing, binding against both parties, and not limited in money damages. Contracts must provide for enforcement of the disposal obligations, require the disposing party to comply with the secure geological storage requirements, and notify the taxpayer of leakage that could trigger credit recapture. Contracts may also include long-term liability, indemnity, and liquidated damages provisions and agreements on the amount of qualified CO to be disposed of, including agreed minimum quantities.

III. Safe Harbor for Investors

Tax equity investors have been critical about the growth of the wind and solar industries. For many years they have invested in tax-favored

industrial projects, typically through partnerships, because of the beneficial after-tax returns. Generally, to be recognized as a partner for tax purposes, an investor must bear economic risks and rewards of the partnership business and have a reasonable expectation of pretax profit.

But when Congress enacts a credit to encourage investment in projects that would not be profitable on a pretax basis, it is appropriate to consider the after-tax returns that arise out of the activities that Congress intended to subsidize with the credit. For example, Congress specified in section 45Q that a pure sequestration project, which by its nature may not generate any cash flow, should qualify for the credit at an even higher level than a project that stores CO in conjunction with an EOR project. The fact that such a pure sequestration project is owned by a partnership shouldn't prevent bona fide investors in a pure sequestration project from claiming these credits.

In Rev. Proc. 2007-65, 2007-50 IRB 967, the IRS announced a safe harbor for partnership investments in creditable wind energy projects. Similar safe harbor guidance was necessary to give tax equity investors the confidence to invest in carbon capture projects. Without a safe harbor, potential investors faced the risk that the IRS would disallow the allocation of the credit to investor-partners even if the project qualified for the section 45Q credit.

Rev. Proc. 2020-12 gives additional guidance to investor-partners committing capital to partnerships investing in carbon capture projects. The revenue procedure provides a safe harbor under which investors who meet the requirements in the revenue procedure will be respected as partners, and the IRS will respect allocations of section 45Q credits to the same. The revenue procedure builds on concepts from the safe harbor for wind energy projects in Rev. Proc. 2007-65.

The safe harbor contemplates that there will be (1) a partnership (the project company) that owns the carbon capture equipment and claims the credit, (2) a developer, and (3) investors. Also, the safe harbor acknowledges that other parties may also be present, including lenders, emitters, construction contractors, and "offtakers" of

processed carbon oxide who sequester the carbon oxide in secure geological storage.

A. Rules for Developers

The safe harbor requires that the developer have, at a minimum, a 1 percent interest in the material items of the project company's income, gain, loss, deduction, and credit throughout the existence of the project company. Also, the developer cannot lend the investor funds or guarantee the investor's debt to acquire an interest in the project company.

B. Rules for Investors

Investors may be initial partners or join later, either by acquiring an interest directly from the project company or from another partner. During their period of ownership, the investor's interest in partnership items of income, gain, loss, deduction, and credit must remain at least 5 percent of the interest it holds when its interest is the largest.

The investor must make a minimum unconditional investment in the project company equal to at least 20 percent of the sum of the investor's fixed capital investment plus any reasonably anticipated contingent investment required under the partnership agreement. More than 50 percent of the sum of the fixed investment plus reasonably anticipated contingent investments must be fixed and non-contingent (down from a 75 percent non-contingent requirement for wind projects in Rev. Proc. 2007-65). Contributions to pay ongoing operating expenses will not be treated as part of the contingent investment for these purposes.

The investor's interest must be a bona fide equity interest with a reasonably anticipated value that isn't substantially fixed, but is contingent upon the partnership's net income, gain, and loss. The investor may not be protected against loss by the developer, other investors, an emitter, an offtaker, or persons related to the same.

Under the safe harbor, no one may have a call option on the investor's interest; the investor may have a put right as long as the put price does not exceed the FMV of the investor's interest at the time of exercise.

C. Guarantees

Rev. Proc. 2020-12 prohibits anyone from guaranteeing the investor's section 45Q credits, and no one can guarantee repayment of the investor's contributions because of an inability to claim the credit. However, recognizing the commercial realities of many midstream carbon capture projects and the substantive objectives of the credit to actually achieve capture and secure storage of CO₂, the safe harbor allows certain project-related guarantees, including: (1) performance of acts necessary to claim the credit; (2) avoidance of acts or omissions that would prevent claiming the credit or would cause recapture; and (3) supply-or-pay, take-or-pay, supply-all, take-all, and securely-store-or-pay provisions in long-term contracts on arm's-length terms with emitters and offtakers.

Given the midstream nature of many anticipated carbon oxide capture projects, the ability to assure supply and offtake of carbon oxide is critical. Carbon capture equipment must be installed long-term at an emitter's site, and that site may be located near a single offtaker. There is no established market for carbon oxide sequestration. Without the ability to contract for long-term supply and offtake, investments in carbon capture projects at industrial facilities wouldn't be economically feasible.

D. Partnership Allocations

To be respected under the safe harbor, the project company's allocation of section 45Q credits must comply with section 704(b) and reg. section 1.704-1(b)(4)(ii). If the project company generates income from its carbon capture project, it must allocate the section 45Q credit in the same proportion as the partners' respective distributive shares of the income. If the project company does not generate income from its carbon capture project, it must allocate the section 45Q credit in the same proportion as the partners' respective distributive shares of the losses and deductions.

IV. Takeaways for Taxpayers

Although the section 45Q credit has been available for more than 10 years, the lack of guidance on technical application of the credit and investments in carbon capture and

sequestration projects through tax equity partnerships stalled interest and investment. The guidance issued so far by Treasury and the IRS demonstrates an understanding of how carbon capture projects work. The technical guidance on key issues such as secure geological storage, recapture, and beginning of construction should help potential investors evaluate the potential risks and benefits of proposed carbon capture and sequestration projects.

During the guidance process, the IRS met with various industry leaders and groups, as well as nongovernmental organizations, such as the Environmental Defense Fund, to discuss both technical and commercial aspects of the section 45Q credit. The IRS has been receptive to input and feedback from industry, environmental groups, and other stakeholders. Interested parties who have concerns that were not addressed by the proposed regulations should consider submitting comments to the IRS by the August 3 deadline. ■

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