

Alert | Tax/Energy & Natural Resources



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Summary of Guidance on Section 45Q Carbon Tax Credits Under 2020 Notice and Revenue Procedure

On Feb. 19, 2020, the IRS released [Notice 2020-12](#) and [Revenue Procedure 2020-12](#) (together, the “**Carbon Guidance**”) which provide highly anticipated clarity on the Internal Revenue Code Section 45Q credit for carbon oxide sequestration (the “**Section 45Q Credit**”). The Carbon Guidance provides details on determining when construction has begun on an eligible project, and valid partnership allocations (including a permissible partnership flip structure), which in each case are very similar rules to those applicable or relied upon in solar and wind tax credit tax equity transactions.

Background and Requirements for Section 45Q Credit Qualification

Section 45Q, as originally enacted in 2008, applied to sequestration of carbon dioxide. Effective for taxable years beginning after Dec. 31, 2017, the availability of the credit was expanded by the Bipartisan Budget Act of 2018 to carbon oxide (“CO”), a broader term than carbon dioxide, and the metric-ton cap was lifted. Since this expansion (and removal of cap), the recent phase-down of other renewable energy tax equity opportunities, and the U.S. federal corporate income tax rate reduction implemented by the Tax Cuts and Jobs Act of 2017, interest in investment in Section 45Q Credit projects has increased significantly.

Under current law, the construction of the qualified facility that includes carbon capture equipment must begin on or before Dec. 31, 2023, and the credit is available for “qualified CO” for a 12-year period after the “qualified facility” is placed in service.

Qualified CO. To be “qualified CO” captured by equipment placed in service on or after Feb. 9, 2018, the CO must be:

- Disposed of by the taxpayer in secure geological storage, unless used in certain specified manners (including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists);
- Captured from an industrial source or, for direct air capture facilities, from the ambient air; and
- Measured at the source of capture and verified at the point of disposal, injection, or utilization.

It should be noted that “Qualified CO” does not include carbon oxide that is recaptured, recycled, and re-injected as part of the enhanced oil and natural gas recovery process.

Qualified Facility. In general, the facility must capture (a) in the case of a facility which emits not more than 500,000 metric tons of carbon oxide into the atmosphere during the tax year, not less than 25,000 metric tons of qualified carbon oxide during the tax year utilized in certain specified manners (including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists), (b) in the case of certain electricity generating facilities (those not described in clause (a)), not less than 500,000 metric tons of qualified carbon oxide during the tax year, or (c) in the case of a direct air capture facility or any facility not described in clauses (a) or (b), not less than 100,000 metric tons of qualified carbon oxide during the tax year.

Amount of the Section 45Q Credit. The amount of the available credit depends on when the qualified facility is placed in service and the manner of CO utilization, as detailed below for equipment placed in service on or after Feb. 9, 2018.¹ Generally, there are higher credit amounts available where the qualified CO is not used in enhanced oil recovery.

Year	CO Credit Amount Per Metric Ton ²	
	If not used in an enhanced oil recovery (or other specified manner, including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists)	If used in enhanced oil recovery (or other specified manner, including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists)
2018	\$25.70	\$15.29
2019	\$28.74	\$17.76
2020	\$31.77	\$20.22

¹ Different credit amounts apply to equipment and facilities with earlier placed-in-service dates (generally \$10 if used in enhanced oil recovery and, otherwise, \$10, up to a metric ton limit rather than the 12-year time-based limit).

² See Notice 2018-93.

Year	CO Credit Amount Per Metric Ton ²	
	If not used in an enhanced oil recovery (or other specified manner, including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists)	If used in enhanced oil recovery (or other specified manner, including growing algae or bacteria, conversion into a chemical compound or other purpose for which a commercial market exists)
2021	\$34.81	\$22.68
2022	\$37.85	\$25.15
2023	\$40.89	\$27.61
2024	\$43.92	\$30.07
2025	\$46.96	\$32.54
2026	\$50.00	\$35.00

Notice 2020-12 and Revenue Procedure 2020-12: The Carbon Guidance

In 2019, pursuant to [Notice 2019-32](#), the U.S. Treasury and IRS solicited comments regarding issues for the Section 45Q Credit. Many commenters requested guidance on how to determine when construction has commenced. In response, Notice 2020-12 provides guidance very similar to the beginning of construction requirements utilized for solar and wind tax credits, namely, the Physical Work Test and Five Percent Safe Harbor, related continuity requirements, and guidance of transfers of projects.

Beginning of Construction. Notice 2020-12 provides two methods to establish commencement of construction on a qualified facility or carbon capture equipment: (1) beginning “work of a significant nature” (the “**Physical Work Test**”) and (2) incurring at least 5% of the total cost of the qualified facility or carbon capture equipment (the “**5% Safe Harbor**”). In either case, the taxpayer must make continuous progress toward project completion, discussed in more detail below.

- **Physical Work Test.** On-site or off-site work on new components and equipment can satisfy the Physical Work Test. However, preliminary activities are not sufficient (e.g., securing financing, exploring, researching, obtaining permits and licenses, conducting test drilling, and clearing the site).

With respect to off-site work, the IRS considers the manufacture of the following equipment, structures, and components significant:

- Mounting equipment and support structures (e.g., skids, rails and racks);
- Components necessary for carbon capture processes (e.g., membranes, sorbent vessels, adsorbers, compressors, engines, motors, power generators and regenerators, reboilers, turbines, pressure vessels and other vessels, piping and pipelines, pumps, heat exchangers, solvent pumps, filters, recycling units, electrostatic filtration, water wash equipment, lube oil systems, dehydration systems, glycol contractors, specially designed flue gas ducts, conditioners, cooling towers, absorber units, and other types of gas separation, liquification, or processing equipment); and

- Equipment necessary for disposal of qualified CO in secure geological storage (e.g., valves, specialized casings, wellhead equipment, booster compressors, monitoring equipment for a storage site or other components of a wellhead or well).

Components that are in existing inventory or normally held in inventory of a vendor do not qualify.

With respect to on-site work, the IRS considers the following activities significant:

- Excavation for and installation of foundations (for the project as well as for buildings to house equipment necessary to the project (e.g., setting of anchor bolts into the ground and the pouring of the concrete pads of the foundation), but *not* excavation to contour the land or removing existing foundations or components that will not be part of the facility or carbon capture equipment);
- Installation of a system of gathering lines necessary to connect the industrial facility to the carbon capture equipment or other equipment necessary to the qualified facility before transportation away from the qualified facility for disposal, utilization, or use as a tertiary injectant;
- Installation of components noted above in the qualifying off-site work list necessary for carbon capture processes; and
- Installation of equipment and other work necessary for the disposal of qualified carbon oxide in secure geological storage at the geological storage site, which may be at a different location than the qualified facility or carbon capture equipment.

If not done by the taxpayer directly, physical work performed for the taxpayer by other persons under a binding contract that does not limit damages to an amount less than 5% of the total contract price can also qualify. Taxpayers should take care to enter into such a contract before another person commences work intended to qualify for the Physical Work Test.

Unlike the 5% Safe Harbor discussed below, for the Physical Work Test, the IRS will evaluate the nature of the work and not cost – “there is no fixed minimum amount of work or monetary or percentage threshold required.”

The Physical Work Test is not met unless there is a continuous program of construction involving continuing physical work of a continuous nature (the “**Continuous Construction Test**”), discussed in more detail below (i.e., a project entity cannot put down tools for extended periods and qualify under the Continuous Construction Test, as discussed herein).

- **5% Safe Harbor.** As an alternative to the Physical Work Test, construction is deemed to have begun if 5% of the costs are “incurred” (under Code Section 461 and the applicable Treasury Regulations) on new components or equipment. The costs considered for this purpose are all those that are included in the depreciable basis of the qualified facility or carbon capture equipment.
 - If relying on the 5% Safe Harbor, care should be taken, because if there is a cost overrun, the 5% Safe Harbor will not be met. A similar rule applies to solar projects; in that industry, it would be common for developers to plan to incur more than 5% (e.g., 7%).
 - There are, however, provisions allowing a single project comprised of multiple facilities or multiple units of carbon capture equipment to be segmented so a portion of the units that comprise a single project may still meet the 5% Safe Harbor in the event of a cost overrun.

After incurring the first 5% of costs, the taxpayer must make continuous efforts to advance toward the completion of the qualified facility or carbon capture equipment (the “**Continuous Efforts Test**”).

Continuity Requirement.

If a taxpayer places a qualified facility or carbon capture equipment in service by the end of the 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 (i.e., the year the taxpayer met the Physical Work Test or 5% Safe Harbor, discussed above), the qualified facility or carbon capture equipment will be considered to satisfy the continuity requirements (i.e., the Continuous Construction Test or Continuous Efforts Test) applicable to the Physical Work Test and 5% Safe Harbor, respectively, (the “**Continuity Safe Harbor**”). For instance, if the physical work of a significant nature began on Jan. 15, 2021, then the qualified facility or carbon capture equipment must be placed in service (under the same standard applicable to the investment tax credit or deduction for depreciation) by Dec. 31, 2027.

- It is important to note that a project may meet either or both of Physical Work Test or 5% Safe Harbor; however, the six-year Continuity Safe Harbor clock begins to run as soon as construction has begun under either test. For instance, if the Physical Work Test is met in 2022, and the 5% Safe Harbor is satisfied in 2023, 2022 and not 2023 is the year in which construction began for the purpose of the Continuity Safe Harbor.

If the Continuity Safe Harbor is not met, the continuity will be judged based on the facts and circumstances (which may take into account delays due to excusable disruptions outside the taxpayer’s control) to determine whether the Continuous Construction Test or Continuous Efforts Test, as applicable, has been satisfied.

Similar to the 5% Safe Harbor, a single project comprised of multiple facilities or units of carbon capture equipment may be disaggregated for purposes of applying the Continuity Safe Harbor. So, if separate facilities are placed in service prior to the expiration of the Continuity Safe Harbor, those individual facilities will be eligible for the Continuity Safe Harbor, and the remaining facilities in the single project would have to satisfy the continuity requirement through a facts and circumstances determination.

Single Project.

For the purpose of determining whether construction has begun, multiple facilities or multiple units of carbon capture equipment may be treated as a single project based on the relevant facts and circumstances. The following factors indicate that the facilities or equipment are part of a single project:

- Ownership by a single legal entity;
- Construction in the same general geographic location or on adjacent or contiguous pieces of land;
- A single system of gathering lines or a single off-take operation is used to collect and deliver carbon oxide to a transportation pipeline;
- Shared contract for disposal, utilization, or use as tertiary injectant;
- Common environmental or other regulatory permits or collective reporting;
- Construction pursuant to a single contract providing FEED or similar services covering the full scope of the single project;
- Construction pursuant to a single master construction contract; and
- Financing pursuant to the same loan agreement.

As discussed above, a single project can be disaggregated for the purposes of satisfying the begun construction and continuity requirements.

Retrofitting Permitted.

A qualified facility or carbon capture equipment may qualify as originally placed in service even if used components are included, so long as the amount spent on new components is at least four times the value of the used components (the “**80/20 Rule**”). The 80/20 Rule will apply to each separate facility or unit of a single project.

Transfer of Qualified Facility.

- **Change of Taxpayer.** In the Carbon Guidance, similar to earlier guidance with respect to wind and solar projects, the IRS stated that there is no requirement that the taxpayer that places the facility in service be the same taxpayer that began construction. A qualified facility or carbon capture equipment on which construction began may be transferred (so long as the transfer is more than just tangible personal property (e.g., an equity interest transfer of a single-member LLC used to hold and develop the project)) and the new owner can rely on the work performed and costs incurred before the transfer.
- **Change of Site.** A taxpayer may begin construction with the intent to develop in one location and transfer the same facility or carbon capture equipment to a different site and rely on the work performed and costs incurred prior to the site transfer.

Partnership Allocation Guidance.

It is important to tax equity investors that the Carbon Guidance confirms that partnership flip structures common in wind tax equity deals are a permissible method of tax equity investment in carbon projects. The IRS provides in Revenue Procedure 2020-12 that it will respect partner allocations of the Section 45Q Credits that comply with the following requirements:

- **Minimum Allocation Percentages.**
 - At all times, the developer must have at least a 1% interest in each material item of partnership income, gain, loss, and deduction.
 - At all times during the period during which it owns an interest in the partnership, each investor must have at least a 5% interest in each material item of partnership income, gain, loss, and deduction.
 - Similar to wind partnership flip structures, the cash distributions do not have to be the same as the tax allocations.
 - The Revenue Procedure 2020-12 provides an example of a valid (safe harbor) allocation, which includes the following distribution and allocation provisions:

	Developer		Investor	
	Cash Distributions	Allocations (including Section 45Q Credit)	Cash Distributions	Allocations (including Section 45Q Credit)
Until the developer receives its agreed cash	100%	1%	0%	99%

	Developer		Investor	
	Cash Distributions	Allocations (including Section 45Q Credit)	Cash Distributions	Allocations (including Section 45Q Credit)
return (e.g., return of capital) or a fixed date				
If the investor has not yet reached its agreed after-tax IRR (the “ Flip Point ”), until the Flip Point	0%	1%	100%	99%
After the Flip Point, for the life of the project	95%	95%	5%	5%

• **Investment Requirements**

- Each investor must be a bona fide equity holder with genuine upside and downside risk, and no other person involved in the project can guarantee or insure an investor’s right to claim the Section 45Q carbon oxide credit.
- Each investor must maintain an unconditional at-risk investment that is 20% or more of its total investment during the time it owns the partnership interest.
- More than 50% of an investor’s investment (taking into account fixed and contingent investments) must be fixed.
- The developer cannot lend any investor the funds to acquire the investor’s interest (or guarantee any of the investor’s financing of its interest).
- Timing of tax equity investments is not addressed by the Carbon Guidance (other than as discussed above with respect to transfers of an interest in a project after construction began but before the project was placed in service).

• **Put and Call Rights**

- None of the developer, the investors, or any related person may have a call option or other right to purchase the carbon capture equipment or a partnership interest in the future.
- An investor may not have a right to require another person to purchase the such investor’s partnership interest in the future for more than fair market value.

The Carbon Guidance rules are effective for transactions entered into on or after March 9, 2020. The IRS will not issue private letter rulings on the matters covered in the Carbon Guidance.

Conclusion

The Carbon Guidance will likely allow many project sponsors and tax equity investors to structure Section 45Q Credit transactions with greater confidence, which may lead to significant expansion of the tax equity market, particularly among investors looking for alternatives to the phase-down in wind and solar tax incentives.

However, while taxpayers may rely on the Carbon Guidance, the IRS has yet to release guidance or regulations on certain other critical aspects of the Section 45Q Credit. Potential investors may wait to invest until the IRS provides more clarity on issues raised by Notice 2019-32, for example, the criteria for satisfactory geographical storage and additional guidance on potential recapture of the Section 45Q Credit (including standards of triggering and measuring the recapture).

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