

Carbon Sequestration Tax Credit FAQ #4: What are Qualifying Emissions Sources for Section 45Q Tax Credit Projects?

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This is part of an ongoing series of blog posts that answer frequently asked questions about the carbon sequestration tax credit under section 45Q of the Internal Revenue Code. See [prior posts](#) for additional background on the tax credit.

In order to qualify for carbon capture tax credits, the tax rules require that a “qualified facility” be the source of carbon oxide emissions. Subject to minimum capture requirements described below, a “qualified facility” can be any industrial facility, electricity generating facility or direct air capture facility (each as described further below), as long as (i) the construction of the facility begins before 2024, and (ii)(A) either the construction of the carbon capture equipment at the facility begins before 2024 or (B) the original planning and design for the facility includes the installation of carbon capture equipment. The IRS [published rules in February 2020](#) to help taxpayers determine when construction begins for purposes of section 45Q.

What is an Industrial Facility, Electricity Generating Facility or Direct Air Capture Facility?

Proposed U.S. Treasury Regulations define the terms industrial facility, electricity generating facility and direct air capture facility as follows:

- “Industrial facility” means a facility that produces a carbon oxide stream from a fuel combustion source or fuel cell, a manufacturing process or a fugitive carbon oxide emission source (e.g., resulting from leaks or other unintended releases) that, absent capture and disposal, would otherwise be released into the

atmosphere as industrial emission of greenhouse gas or lead to such release.

- “Electricity generating facility” means a facility subject to depreciation under specific IRS asset classes that include certain hydraulic production plants, nuclear production plants, steam production plants and combustion turbine production plants.
- “Direct air capture facility” means any facility that uses carbon capture equipment to capture carbon oxide directly from the ambient air.

Minimum Capture Requirements

In addition to meeting start of construction deadlines, the qualified facility must meet minimum capture requirements outlined in the chart below that vary by facility type.

Qualified Facility Type	Minimum Annual Capture Requirement
Industrial or electricity generating facility that emits a maximum of 500,000 metric tons into the atmosphere per year	At least 25,000 metric tons must be captured annually and put to a commercial use described in section 45Q(f)(5) ¹
Electricity generating facility that emits 500,000 or more metric tons into the atmosphere per year	At least 500,000 metric tons must be captured annually
Direct air capture facility or any other facility not described above	At least 100,000 metric tons must be captured annually

Substantial annual minimum capture requirements reflect a policy decision by Congress to try to direct carbon capture and sequestration subsidies to very large projects that have a reliably steady stream of carbon emissions. However, these baseline requirements also put the tax credits at risk if the facility does not produce sufficient emissions to reach the capture threshold, or if the facility is shut down at some point during the 12-year period during which the credits are available. Absent further tax guidance on this point, potential carbon capture tax credit investors should be careful to diligence the operating history (if any) of the underlying facility and form a view as to the likelihood that the facility can maintain minimum

emissions levels for 12 consecutive years. Note that the failure to achieve minimum capture targets in a particular year does not cause a recapture event or cause the loss of tax credits claimed in prior taxable years.

1. Commercial uses described in section 45Q(f)(5) include: (i) the fixation of carbon oxide through photosynthesis or chemosynthesis, such as through the growing of algae or bacteria, (ii) the chemical conversion of carbon oxide to a material or chemical compound in which the carbon oxide is securely stored, or (iii) the use of carbon oxide for any other purpose for which a commercial market exists (with the exception of use as a tertiary injectant in an enhanced oil or natural gas recovery project), as determined by the Secretary of the Treasury.↩

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