

# IRS Rules on Section 45Q Eligibility for Separately Owned and Subsequently Installed Property at Qualified Facility

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On July 1, the IRS issued Revenue Ruling 2021-13, which concludes that an acid gas removal (AGR) unit at a methanol plant constituted carbon capture equipment for purposes of the carbon capture credit under Section 45Q (Section 45Q Credit), notwithstanding that the AGR unit was not part of a single process train capable of capturing carbon oxide until additional carbon capture equipment was installed four years after its original placed-in-service date. The ruling also confirmed that the 12-year period for the Section 45Q Credit began only upon the subsequent installation of carbon capture equipment at the methanol plant and that the owner of the subsequently installed equipment could claim the credit even though it did not own the AGR unit or the methanol plant.

## Carbon Capture Equipment

For carbon capture equipment originally placed in service at a qualified facility on or after February 9, 2018, the Section 45Q Credit is calculated based on a specified dollar amount per metric ton of qualified carbon oxide that is, *inter alia*, captured by the taxpayer during the 12-year period beginning on the date the equipment was originally placed in service. Section 45Q does not define the term “carbon capture equipment.” [The regulations finalized in January](#) contain a functional definition: While “carbon capture equipment” generally includes all components of property used to capture or process carbon oxide until the carbon oxide is transported for disposal, injection, or utilization, as well as a system of gathering and distribution lines that collect carbon oxide captured from a qualified facility (or multiple qualified facilities that constitute a single project), the term generally does not include components used for transporting qualified carbon oxide for disposal, injection, or utilization. All components that make up an independently functioning process train capable of capturing, processing, and preparing carbon oxide for transport should be treated as one unit of carbon capture equipment.

Under the facts of Revenue Ruling 2021-13, a methanol plant produced a raw synthesis gas (syngas) by gasifying petroleum coke. The AGR unit purified the syngas by removing hydrogen sulfide, carbonyl sulfide, and carbon dioxide, and the purified syngas was then converted into methanol. The AGR unit was placed in service on January 1, 2017 for depreciation purposes. In 2021, an investor purchased and installed new components of carbon capture equipment necessary to create a single process train capable of capturing, processing, and preparing for transport the CO<sub>2</sub> that was being released into the atmosphere. The investor did not acquire an ownership interest in the AGR unit or the methanol plant.

As an initial matter, the IRS explained that because one function of the AGR unit was to separate carbon dioxide from a gas stream, it was carbon capture equipment for purposes of Section 45Q even though it was not part of a

single process train that was capable of capturing carbon oxide between the time of its initial installation in 2017 and the installation of additional carbon capture equipment in 2021. The IRS concluded that the AGR unit's earlier history of releasing carbon dioxide did not preclude it from later qualifying as carbon capture equipment.

### **Ownership of Components of Single Process Train**

The owner of the carbon capture equipment installed in 2021, which together with the AGR unit constituted a single process train capable of capturing carbon oxide, did not own either the AGR unit or the methanol plant. The IRS ruled that the separate ownership of components of the single process train did not prevent the owners from claiming the Section 45Q Credit. Instead, based on the language of the regulations, the IRS concluded that the person to whom the Section 45Q credit is attributable merely must own at least one component of carbon capture equipment in the single process train.

### **Placed-in-Service Date of Single Process Train**

The 12-year period for the Section 45Q Credit begins on the date the carbon capture equipment is originally placed in service. Under applicable regulations, all components that make up an independently functioning process train capable of capturing, processing, and preparing carbon oxide for transport are treated as a single unit of carbon capture equipment. Accordingly, the relevant placed-in-service date for purposes of the Section 45Q Credit is the original placed-in-service date of the single process train. The IRS ruled that in the case of the carbon capture equipment, including the AGR unit, the placed-in-service date for Section 45Q Credit purposes could not occur until the new components of carbon capture equipment were added in 2021, notwithstanding that the AGR unit was placed in service in 2017 for depreciation purposes. The IRS noted that the equipment installed in 2021 would have a 2021 placed-in-service date for depreciation purposes.

### **Observations**

Revenue Ruling 2021-13 provides helpful authority for existing industrial and electricity-generating facilities that already include equipment that separates carbon oxide from other gases or liquids and therefore, after the addition of new carbon capture equipment, could subsequently become components of an independently functioning process train that captures, processes, and prepares carbon oxide for transport, disposal, utilization, or injection. The ruling provides comfort that the 12-year credit period will not begin running when the existing components were previously placed in service and clarifies the application of the depreciation periods.

The ruling also clarifies that the Section 45Q Credit can be attributable to an investor even if that investor does not own all components of carbon capture equipment within a single process train. Though helpful in situations where it may not be practical for a taxpayer to own all components of a single process train, the requirement that a taxpayer must own "at least one component" of the carbon capture equipment likely will raise questions as to when an item is sufficiently substantial to constitute a single component.

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