GAO Highlights

CARBON CAPTURE TAX CREDIT

Actions Needed to Improve Federal Administration and Evaluation of Tax Expenditure

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A report to congressional committees

Contact: Jessica Lucas-Judy at lucasjudyj@gao.gov

What GAO Found

The Carbon Oxide Sequestration Credit (45Q) is a tax credit provided for certain carbon oxides that are captured at emission sources or directly from the air and either stored underground or used to produce products. The credit has been amended multiple times, including by the 2022 Inflation Reduction Act (IRA), which added new credit features. More recently, the One Big Beautiful Bill Act created parity in credit values across uses of captured carbon. As of March 2026, there were 33 carbon capture facilities in the U.S., with additional facilities planned. The number of 45Q credit claims more than tripled from 2019 to 2023, according to IRS data.

The Internal Revenue Service (IRS) has taken several actions to administer the 45Q credit and mitigate potential noncompliance. However, taxpayers using carbon to produce products face compliance burdens, delays, and uncertainty in claiming the credit. GAO identified areas in the approval process for carbon utilization where IRS and the Department of Energy (DOE) could potentially minimize compliance burden and improve certainty for taxpayers. Pursuing such opportunities—for example, streamlining certain processes, or clarifying acceptable datasets that can be used to calculate carbon displaced—could improve the process and help minimize delays for both agencies and taxpayers.

Source: GAO team photo taken with permission of Petra Nova Parish Holdings. | GAO-26-107711

Multiple potential goals, the lack of a designated agency to evaluate the effectiveness of the credit, and data limitations complicate Congress's ability to understand the performance of the 45Q credit. Even so, periodic reviews of tax expenditures are crucial for informed oversight. GAO has previously recommended various actions Congress and agencies could take to improve oversight for other tax expenditures, such as identifying what should be analyzed and by whom. In this report, GAO identified key questions for Congress to consider directing agencies to analyze to help determine the performance of the credit. These key questions are: (1) how well the credit is working to achieve its goals, (2) how efficiently the credit is performing and (3) how the credit compares to other policy tools.

Why GAO Did This Study

The 45Q credit was created in 2008 to incentivize the development of carbon capture technology and reduce carbon emissions. Carbon capture involves complex and novel technology, and the 45Q credit could result in potentially substantial revenue expenditures.

The IRA includes a provision for GAO to review the distribution and use of IRA funds. This report assesses (1) IRS's administration of the 45Q credit, and (2) the challenges in evaluating the effectiveness of the credit. GAO reviewed agency policies and procedures and interviewed officials from IRS, DOE, and the Environmental Protection Agency. GAO also interviewed selected external stakeholders knowledgeable about the 45Q credit, representing advocacy, research, and industry. GAO also conducted two site visits to carbon capture sites in Houston, Texas.

What GAO Recommends

GAO is recommending that Congress consider directing agencies to collect and analyze data to answer key questions about the performance of the 45Q credit, such as how well it is working to achieve its goals, how efficiently it is performing, and how it compares to other policy tools.

GAO is making four recommendations to IRS and two recommendations to DOE to improve the review process for carbon utilization, by reducing taxpayers' burden while still mitigating potential noncompliance. These include determining a time period of carbon capture data needed to begin claiming the credit, and clarifying datasets acceptable for calculating carbon displaced. IRS partially agreed with one recommendation; IRS and DOE disagreed with the remaining five. GAO maintains the recommendations are warranted as discussed in the report.