

Carbon Capture Provisions in the Inflation Reduction Act of 2022

The Inflation Reduction Act of 2022 (IRA) provides critical updates to the 45Q tax credit, which incentivizes the use of carbon capture and storage – a climate solution that the Intergovernmental Panel on Climate Change (IPCC) and International Energy Agency (IEA) have found is likely to play a vital role in efforts to address climate change.

By expanding and enhancing 45Q, Congress has made the tax credit significantly more accessible to a broad array of investors and developers. This will move carbon capture and storage closer to realizing its potential as a critical decarbonization solution for hard-to-abate industries such as steel, cement, refineries, and power generation. Industrial sectors that have previously lacked the requisite incentives to decarbonize will now be more likely to participate in the carbon capture, removal, transport, and storage ecosystem. Likewise, direct air capture (DAC), which had a limited future under a \$50/tonne 45Q tax incentive, is likely to gain traction as a leading carbon dioxide removal technology with a higher incentive level.

45Q Enhancements in the Inflation Reduction Act



The IRA increased credit values across the board, with full value realized only if prevailing wage and apprenticeship requirements are met:

- 45Q incentives increase from \$50 to \$85/tonne for storage in saline geologic formations from carbon capture on industrial and power generation facilities.
- 45Q incentives increase from \$35 to \$60/tonne for utilization from industrial and power generation carbon capture.
- 45Q incentives increase from \$50 to \$180/tonne for storage in saline geologic formations from DAC.
- 45Q incentives increase from \$50 to \$130/tonne for utilization from DAC.
- The credit can be realized for 12 years after the carbon capture equipment is placed in service and will be inflation-adjusted beginning in 2027 and indexed to base year 2025.



The IRA extended the commence-construction window for qualifying projects.

- 45Q's commence construction window is extended seven years to January 1, 2033. This means that projects must begin physical work by then to qualify for the credit.



The IRA gives a direct payment option for receiving the credit.

- Carbon capture project developers can receive 45Q as a fully refundable direct payment as if it were an overpayment of taxes.
- For-profit, tax-paying entities can only realize the direct pay option for five years after the carbon capture equipment is placed in service.
- Tax-exempt entities such as states, municipalities, Tribes, and cooperatives can realize the direct pay option for the full 12 years after the carbon capture equipment is placed in service.



The IRA extends broad transferability provisions for 45Q.

- Recipients of the 45Q tax credit may transfer all or any portion of the credit value credit to any third-party, tax-paying entity in exchange for a cash payment during any portion of the 12-year credit window.
- The cash payment received by the original recipient of 45Q will not be taxable.



The IRA broadens the definition of qualified facilities.

- The capture threshold for credit-eligible power generation facilities will decrease from 500,000 tonnes of CO₂ emitted per year to 18,750 tonnes.
- For industrial facilities, it will decrease from 100,000 tonnes of CO₂ emitted per year to 12,500 tonnes.
- For DAC facilities, it will decrease the amount of CO₂ capture requirements from 100,000 tonnes captured per year to 1,000 tonnes per year.
- Power generation facilities seeking to qualify for the credit must meet a capture design capacity requirement of not less than 75% of the CO₂ from an electricity generating unit that will install capture equipment.