

Tax rule for industry rewards carbon capture

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When it comes to encouraging manufacturers to reduce their carbon dioxide (CO₂) emissions, a carrot might be more effective than a stick. That's the approach taken by a recent U.S. tax code rule that offers credits to companies that capture and then store or use CO₂. The rule will likely spur innovations in carbon capture technology, according to an article in *Chemical & Engineering News (C&EN)*, the weekly

newsmagazine of the American Chemical Society.

The rule, enacted in February 2018, expands a [tax credit](#), called 45Q. Under the rule, industrial manufacturers can earn a tax [credit](#) of \$50 per metric ton of CO₂ captured and stored permanently in geologic formations, or \$35 per metric ton of CO₂ captured and used, such as for enhanced oil recovery (EOR). A previous version capped the credit at 75 million metric tons of captured CO₂, and paid only \$20 per metric ton of the captured gas. Companies with emission-intensive operations, such as those in the cement, steel and power industries, are busy modeling whether their facilities can take advantage of the credit, Senior Business Editor Melody Bomgardner writes.

The corn ethanol industry, which produces as much as 40 million metric tons per year of CO₂, already captures about 20% of the gas to sell to soda bottlers or for dry ice. The tax credit could spur investment in pipelines to transport CO₂ from ethanol plants to use for EOR and other purposes. The cement maker LafargeHolcim has partnered with Svante, a provider of CO₂ capture technology, to study whether the credit makes it profitable to capture and permanently store underground CO₂ emissions from a [cement plant](#) in Colorado. And Net Power, with partner Toshiba Energy Systems & Solutions, have demonstrated a gas-fired power plant that uses captured CO₂ to power a turbine before recycling or reuse. Because 45Q mandates that companies start constructing carbon-capture facilities within seven years, most companies benefiting from the rule will rely on mature carbon-capture technologies, but these projects will drive demand for next-generation technologies, experts say.

More information: The article, "45Q, the tax credit that's luring US companies to capture CO₂," is freely available [here](#).

Provided by American Chemical Society

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