

Policy Option Template

Policy Idea: Carbon Abatement Contract Program for Industry and Power

Lead Orgs: *Clean Air Task Force, Coalition staff*

Policy Description:

Under a pilot program, DOE would pay the difference between a project's CO₂ abatement cost and the 45Q credit level provided. This mechanism would provide financial certainty for a specific number of projects, making them more attractive to investors by mitigating the risks to first movers, and help move capture technologies from first-of-kind to nth-of-kind. The policy would effectively increase the price paid by the government for sequestered CO₂ for projects below 5th-of-kind.

Background:

The US has the most advanced policy framework for deploying carbon management technologies; however, large, industrialized nations are catching up with policy support that could diminish the US position as the world leader in deploying these essential technologies, such as Canada's ITC for carbon capture, direct air capture, and transport, reuse, and storage.

A particular issue in the US policy framework is the cost gap between the support provided by 45Q and the cost of first-of-kind projects. 45Q is meant to support the capital costs of nth-of-kind projects; without additional targeted policy support, first movers are disincentivized from investing in the technology. Currently, through the monies in the BIL, the US will be able to demonstrate a small handful of first- or second-of-kind carbon management projects, still leaving a significant gap between the policy support provided for nth-of-kind projects by 45Q and early deployment.

By piloting a Carbon Contracts for Difference (CCfD) program, the DOE can provide targeted support for first-of-kind project deployment and move technologies down the cost curve to Nth-of-kind. By closing the cost gap between capital costs for project deployment and guaranteeing a price for carbon emissions reduction, CCfDs can provide the financial stability needed to encourage investment in Carbon Capture, Utilization, and Storage (CCUS) projects. In European countries with CCfD systems, industrial decarbonization projects propose the price and quantity of carbon they can cut and compete for funding based on these and other parameters. Successful projects are awarded contracts and are guaranteed to be paid the

difference between their offered price and a reference price for CO2 emissions – typically the price under the EU Emissions Trading System (ETS).

Proposal for the US:

- **DOE Develops Abatement Cost Range:** DOE should calculate the abatement cost per ton range for different technology categories, including transportation and storage (T&S), to guide bidding, based on existing materials such as the lift-off report, and data collected via an RFI.
- **Competitive Bidding Process:** Developers submit bids within the calculated abatement cost range based on cost per ton of CO2 to DOE.
- **Selection Criteria:** Evaluate projects based on the cost per ton of CO2 abated, project maturity, potential CO2 reduction volume, and additional economic and environmental benefits. Priority may be given to anchor projects.
- **Contract Duration:** Set contract terms for the length of 45Q, which is currently 12-years.

For example, suppose DOE estimates that the cost of installing the technology at steel blast furnace is \$159 dollars per ton (at the higher end of costs), per the DOE Commercial Liftoff Report. If selected, DOE would sign a long-term (e.g., 12-year) contract with the developer for to pay the difference between this value and tax subsidies available to the developer, accounting for changes in the value of the tax credit(s), such as the 45Q inflation adjustments, and any legislative changes that may occur during the term of the contract.

Alternative policy option:

- Establish a federal funding program focused on financing for CCUS focused industrial decarbonization. The federal government can specify the eligible technologies and states can apply through a competitive bidding processes focused on emission reductions. States would then issue funding through grants and/or other mechanisms.

Impacts:

This policy could accelerate the deployment of large CCUS projects with higher capture costs than \$85/ ton, for example in the steel, cement and petrochemicals sector. These projects can act as anchor tenants for other CCUS projects with CO2 transport and storage needs.

Support and Opposition:

A pilot CCfD program was included in Rep. Khanna's steel bill, although this was not a tech neutral bill and excluded CCUS. This was drafted with input from US Steel, RMI and others.

Additional Actions

- Need to identify partners for modelling.

- Test bipartisan support
- Industry outreach to understand if this is an optimal model