CARBON CAPTURE COALITION

June 21, 2019

The Honorable John Thune, Co-lead
The Honorable Debbie Stabenow, Co-lead
Finance Committee Energy Task Force
Washington, D.C. 20510
VIA Email: energy_taskforce@finance.senate.gov

Dear Senators Thune and Stabenow:

The Carbon Capture Coalition is a nonpartisan partnership of over 60 energy, industrial, and technology companies, labor unions, and conservation, environmental, clean energy and agricultural organizations that supports commercial adoption of carbon capture technology (see attached list of Coalition participants and observers). The Coalition was created to help realize carbon capture's full potential as a national strategy for reducing carbon emissions, supporting domestic energy and industrial production and protecting and creating high-wage jobs. The Coalition's diverse participants work together to achieve a common goal: Economy-wide deployment of carbon capture from industrial facilities, power plants and ambient air through financial incentives and other policies that drive private investment, innovation and cost reductions in carbon capture, pipeline transport, utilization, removal and storage.

On behalf of the Carbon Capture Coalition, we submit the following comments for the consideration of the Energy Tax Taskforce:

The Carbon Capture Coalition achieved its top federal legislative priority in February 2018 with passage of landmark legislation in Congress to reform and expand the U.S. Federal Section 45Q tax credit for the storage and beneficial use of carbon captured from industrial facilities, power plants and ambient air. The reform of the 45Q incentive was enacted as part of the broader Bipartisan Budget Act of 2018. This legislation, known as the FUTURE Act, was introduced by Senators Heidi Heitkamp (D-ND), Shelley Moore Capito (R-WV), Sheldon Whitehouse (D-RI) and John Barrasso (R-WY). It was cosponsored by one-fourth of the U.S. Senate, including 18 Democrats, six Republicans and one Independent. A companion bill, the Carbon Capture Act, was introduced in the House by Congressman Mike Conaway (R-TX) and cosponsored by 50 members, including 35 Republicans and 15 Democrats.

The bipartisan support for both bills was unprecedented for legislation of its kind, spanning the political spectrum and all regions of the country and underscoring the breadth of support for carbon capture.

Key provisions of the reformed 45Q tax credit include:

- Increases the credit value incrementally over ten years from \$10 to \$35 per metric ton of CO_2 stored geologically through enhanced oil recovery (CO_2-EOR) and from \$20 to \$50 per ton for saline and other forms of geologic storage;

- Provides $35 per metric ton of emissions reduced through the beneficial use of captured carbon for purposes beyond CO_2-EOR;
- Allows projects involving carbon monoxide (CO) capture and direct air capture to qualify for the credit;
- Authorizes the program for carbon capture projects that commence construction within six years of enactment, and projects meeting that timeframe can claim the credit for 12 years after being placed in service;
- Reduces the minimum eligibility threshold for qualified facilities from 500,000 metric tons of CO_2 or CO captured annually to 100,000 tons for industrial facilities, expanding participation to additional industry sectors by making smaller industrial facilities eligible to claim the credit (retains the 500,000-ton eligibility threshold for electric generating units);
- Establishes a threshold of 25,000 metric tons for CO_2 or CO captured and put to beneficial uses other than EOR;
- Awards the credit to the owner of the carbon capture equipment and allows transfer of the credit to other entities responsible for managing the CO_2 to provide greater flexibility for companies with different business models to utilize the tax credit effectively, including cooperatives and municipal utilities; and
- Increases financial certainty for investors in carbon capture projects by eliminating the previous cap on credits, which the original 45Q credit was about to reach.

Enhancing Monetization of 45Q and Other Tax Credits

The ability of project developers and investors to monetize the full value of the reformed and expanded 45Q and other tax credits is paramount to project finance and feasibility, and Coalition recommends that Congress adopt the following policies.

Preventing the Disallowance of 45Q under the BEAT Tax

The Coalition recommends that Congress amend the Internal Revenue Code to prevent disallowance of 45Q under the Base Erosion and Anti-Abuse Tax (BEAT), treatment already afforded investors claiming the Production Tax Credit for wind energy and the Investment Tax Credit for solar energy. Important potential tax equity investors in carbon capture projects may be subject to BEAT, which was revised in major tax reform legislation in 2017 to lower the threshold that triggers application of the new tax to multinational companies. Business tax credits such as 45Q can be applied to offset up to 80 percent of a company's BEAT obligation. However, this provision applies only through 2025, and the Coalition supports an additional fix that would extend through the duration of the 45Q tax credit.

Expanded Transferability

Congress should provide additional flexibility to the existing transfer provision in the 45Q statute by including additional taxpayers who are involved in the carbon capture transaction to be allowable as transferees. Additional flexibility will make it easier for investors in carbon capture equipment to transfer the credit to taxpayers with tax liability, creating a larger market for monetizing 45Q tax credits and, thus, a larger pool of eligible investors in projects.

A new credit transfer provision for 45Q could be modeled on the existing transfer provision found in Section 45J(e) of the Advanced Nuclear Tax Credit, which serves as a precedent for a more flexible transfer standard for 45Q. Potential transferees for such tax credits may include persons who have an ownership interest in the carbon capture facility; provided equipment or services in the construction of such a facility; provided transportation of CO_2 from the facility or transmission or distribution of electricity from such facility; purchased electricity or products from such a facility; or provides financing for the qualified facility or carbon capture equipment.

Providing a Revenue-Neutral Refundable Option

The Coalition recommends that Congress provide a revenue-neutral refundable option for the 45Q tax credit. Such an option would allow project developers the choice to convert the 45Q tax credit into a cash grant, which would create certainty for project developers concerning the monetization and value of the tax credit. Carbon capture projects have high capital costs, and many carbon capture project developers and financiers may have federal tax credits that they are unable to use or that must be carried over to later years. Such a policy should be structured to be revenue neutral for the federal government by allowing a project developer to take the credit as cash for a limited number of years, instead of claiming the tax credit for the full 12 years allowed under the current statute.

Establishing a Bonding Mechanism

Congress should consider a proposal to establish "American Energy Bonds" that would allow project developers and energy companies to more efficiently monetize federal tax credits, including 45Q, to encourage additional private investment in our nation's energy infrastructure. Under the proposal, energy companies would be allowed to make interest payments in the form of tax credits, provided they invest the proceeds of the bonds in qualified American energy infrastructure projects, including carbon capture and utilization. Once assigned to the bondholder, the energy company would no longer be eligible to claim the credit, which would go to the bondholder. Importantly, this structure would not create a new tax credit or expand any pre-existing credits.

Technical Corrections to Expand Eligibility and Access

Technical corrections are also needed to ensure that carbon capture and utilization projects are eligible for and have access to available federal incentives.

Eliminating the 25,000-Ton Threshold in 45Q for Carbon Utilization Projects

The Coalition recommends that Congress eliminate the 25,000-ton annual minimum CO_2 capture threshold for carbon utilization projects seeking to claim the 45Q tax credit. In the FUTURE Act, Congress added carbon utilization to 45Q to incentivize the development and deployment of new applications for using captured carbon beyond its traditional use in CO_2-EOR, and a minimum threshold of 25,000 metric tons of annual capture and a maximum threshold of 500,000 tons were established to determine eligibility. Since passage of the legislation last year, it has become clear, based on technical input from technology companies, that most projects in the nascent carbon utilization field will simply not be able to reach the 25,000-ton threshold. This creates the risk that new 45Q program will fail to accomplish the intended goal of catalyzing the demonstration and deployment of new carbon utilization technologies in the commercial marketplace.

Fixing the 48A Tax Credit to Enable Carbon Capture Retrofits of Existing Power Plants

The Coalition endorses proposed reforms to the existing 48A Advanced Coal Tax Credit contained in the bipartisan Carbon Capture Modernization Act introduced recently in the Senate and House (S. 407 and H.R. 1796). The Act corrects design flaws in the 48A program that have made it impossible for companies to access existing incentives to retrofit currently operating coal-fired power plants with carbon capture technology. Fixes in the legislation include removing efficiency requirements that are incompatible with carbon capture (while still achieving far greater emission reductions than from efficiency improvements alone), lowering the percentage CO_2 capture requirement for existing units to improve project economics, lowering the size threshold for eligible projects and directing the Treasury Department to offer additional application rounds to reallocate available 48A credits.

In addition to specific provisions in the legislation, the Coalition recommends that Congress reduce the threshold for eligible projects to 50 MW.

In 2018, coal-fired electricity generation accounted for 30 percent of global CO_2 emissions. A majority of that generation is found today in Asia's young and growing coal fleet, where average power plants are only 12 years old and will require carbon capture retrofit solutions to meet midcentury emissions reduction goals. Innovation knows no borders, and it is vital that the U.S. continue to lead the way in commercial deployment of technologies to manage carbon emissions from existing power plants. Enacting these proposed reforms to the federal 48A tax credit would free up an estimated $1.7 to $2 billion in available funding for tax credits, allowing U.S. power companies to pursue multiple additional carbon capture projects and build on the success of NRG Energy's world class Petra Nova project at a power plant near Houston.

Federal Policies to Complement 45Q

Additional federal incentives and other policies can be combined with the 45Q tax credit to help more carbon capture and utilization projects reach financial feasibility than with just the 45Q tax credit alone. The following policies would complement 45Q by reducing the cost of debt and equity, thus providing project developers with access to capital on more favorable terms.

Making Carbon Capture Projects Eligibility for Tax-Exempt Private Activity Bonds
The Carbon Capture Coalition endorsed the bipartisan Carbon Capture Improvement Act introduced in the Senate and House last Congress, which would make carbon capture projects eligible for private activity bonds (PABs), thereby allowing project developers access to tax-exempt debt to finance their projects and thus lowering their capital costs. PABs are a common, well-accepted financing technique used to finance airports, seaports, mass transit, water pollution control, hazardous waste disposal, and solid waste facilities (including sulfur scrubbers in coal power plants). However, carbon capture equipment cannot now be financed with PABs. Roughly two-thirds of the cost of capturing a ton of CO_2 is repayment to investors and lenders who funded the carbon capture plant. PABs reduce annual debt payments by both lowering interest rates and extending the repayment period. Federally authorized access to PABs is a permanent incentive, not subject to the on-again, off-again nature of federal tax credits.

The Carbon Capture Improvement Act was introduced on June 10, 2019.

Providing for Eligibility of Carbon Capture Projects for Master Limited Partnerships
The Coalition supported the bipartisan MLP Parity Act when it was introduced in the Senate and House last Congress. The Act would make a broad range of clean energy technologies eligible for the MLP structure, including carbon capture. MLPs combine the tax benefits of a partnership with a corporation's ability to raise capital in public markets. Eligibility for MLPs would allow carbon capture projects to reduce the cost of equity, providing access to capital on more favorable terms. MLP financing has backed more than $500 billion worth of U.S. oil and gas pipelines and some coal-related infrastructure. Typically, annual funds raised in the tax equity partnership market through tax credits has been $5 to $10 billion. By contrast, typical annual issuances in the MLP market have been in the $50 billion a year range. Like PABs, eligibility for MLPs would provide a permanent federal incentive, unlike tax credits.

The MLP Parity Act was introduced on June 13, 2019.

We appreciate this opportunity to submit comments to the Energy Task Force. Please let us know if we can answer any questions or provide additional information. We would also be pleased to arrange for industry, labor and NGO members of the Carbon Capture Coalition to meet with you or your staff as a follow-up, if that would be helpful to you.

Sincerely,

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CARBON CAPTURE COALITION

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AK Steel
American Carbon Registry
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Baker Hughes, a GE Company
BPC Action
Carbon180
Carbon Wrangler LLC
Clean Air Task Force
ClearPath Foundation
Cloud Peak Energy
Conestoga Energy Partners
Core Energy LLC
EBR Development LLC
EnergyBlue Project
Energy Innovation Reform Project
Glenrock Petroleum
Great River Energy
Greene Street Capital
Impact Natural Resources LLC
ION Engineering LLC
International Brotherhood of Boilermakers
International Brotherhood of Electrical Workers
Jackson Hole Center for Global Affairs
Jupiter Oxygen Corporation
Lake Charles Methanol
LanzaTech
Linde LLC
Mitsubishi Heavy Industries America, Inc.
National Audubon Society
National Farmers Union
National Wildlife Federation
NET Power
New Stel International, Inc.
NRG Energy
Occidental Petroleum Corporation
Peabody Energy
Prairie State Generating Company
Praxair, Inc.
Renewable Fuels Association
Shell
SMART Transportation Division (of the Sheet Metal, Air, Rail and Transportation Workers)
Summit Power Group
Tenaska Energy
The Nature Conservancy
Third Way
Thunderbolt Clean Energy LLC
United Mine Workers of America
United Steel Workers
Utility Workers Union of America
White Energy
Wyoming Outdoor Council

Observers

Algae Biomass Organization
Carbon Engineering
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Institute of Clean Air Companies
Melzer Consulting
Tellus Operating Group
World Resources Institute