December 7, 2021

The Honorable Ron Wyden
Chairman
Senate Committee on Finance
United States Senate
219 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Wyden,

As the Senate undertakes the next iteration of the Build Back Better Act, the undersigned organizations urge you to remove a harmful and counterproductive provision that would be highly detrimental to lowest cost U.S. power sector decarbonization and meeting net-zero emissions goals.

Carbon capture and storage technologies are included as a key suite of decarbonization tools in the U.S. Nationally Determined Contribution that the Administration presented at COP26 in Glasgow. The 45Q tax credit is a unique and globally recognized incentive to directly decarbonize existing power sector assets, which have locked-in future emissions and will otherwise continue polluting for decades.

However, a **75 percent minimum capture requirement for power plants on a facility-wide or per unit basis to claim the 45Q tax credit would severely limit the emissions reduction potential of the credit and undermine achievement of "100 percent carbon pollution-free electricity" by 2035 as stipulated in the U.S. Nationally Determined Contribution**. Analysis has shown that this provision would likely prevent nearly 60 million tonnes of annual emissions reductions and the creation and retention of tens of thousands of high-wage construction and operations jobs, because the provision would result in fewer existing facilities deploying carbon capture and storage technologies for power plant decarbonization. It could also slow implementation of the infrastructure provisions enacted as part of the bipartisan Infrastructure Investment and Jobs Act and undermines the mission of the Office of Fossil Energy and Carbon Management at the U.S. Department of Energy.

This requirement needlessly imperils existing and new family-supporting middle-class jobs at power plants suitable for carbon capture retrofits. As such, the minimum percentage capture provision directly contradicts and undermines efforts elsewhere in the Build Back Better Act to ensure that enhancements to clean energy and industrial tax credits help safeguard and create domestic American jobs that pay above prevailing wages.

Requiring electric generating units to meet a particular capture percentage to receive any tax credits each year introduces a significant new risk for retrofit projects that must already navigate complex operating and commercial conditions. Although carbon capture technologies can achieve high capture percentages, the financial and investment risks introduced by any kind of percentage *requirement* (either unit or facility-wide) will have harmful unintended consequences. The

requirement will eliminate many first-mover projects because investors cannot risk the possibility that, as the capture unit is commissioned and optimized in the early years of operation, temporary outages make the project ineligible to receive any tax credits at all. If, for example, the capture equipment captures 74 percent of the CO_2 in the first year due to temporary downtime—just under the proposed 75 percent requirement—the project would receive zero revenue from 45Q. For many projects that need to attract hundreds or billions of dollars of private capital, such a profound revenue risk will be unacceptable and a dealbreaker for investment.

Moreover, minimum capture requirements will be particularly detrimental for natural gas power decarbonization resulting in an estimated 75 percent less deployment of carbon capture at natural gas plants. The U.S. gas fleet accounts for about 40 percent of our nation's electricity generation, with the average age of a domestic natural gas plant being around 20 years. With asset lifetimes spanning multiple decades more, the fleet represents a large source of locked-in future emissions. Natural gas power units typically have more variable output than baseload power units, with variability expected to increase as more intermittent renewables are deployed.

Furthermore, incorporating this new percentage capture requirement will require yet more IRS guidance, which would further delay carbon capture projects for several years. The IRS took nearly three years to issue guidance for 45Q following the amendments made in the Bipartisan Budget Act of 2018, a process we cannot afford to repeat. It would also stifle technology innovation, as new capture technologies (e.g. solid sorbents and membranes) may fail to emerge because the financial and investment risk of a 75 percent capture requirement for initial technology deployments is too great.

Finally, the 45Q tax credit is expected to play a significant role in the commercialization of these critical technologies for global decarbonization, reducing emissions at home and abroad. According to the International Energy Agency's Net-Zero Scenario, even in a world where we rapidly reduce the reliance on fossil fuels and allow no additional fossil fuel development, carbon capture and storage technologies will be critical for power sector decarbonization.

By impairing the effectiveness of the 45Q credit, a facility or unit-level capture requirement will substantially reduce early deployment of carbon capture and storage technologies in the power sector, constrain the portfolio of firm low carbon power technology options, lead to the entirely avoidable loss of middle-class jobs that support families and communities, and unacceptably elevate the risk of failure in meeting our national and global climate goals.

We look forward to working with Congress to ensure this minimum capture requirement is struck from the Build Back Better Act so that carbon capture can be deployed rapidly to provide the decarbonized dispatchable electricity our nation needs in the coming decade.

Sincerely,

AFL-CIO

Third Way

Great Plains Institute

United Steelworkers

Pennsylvania Environmental Council

United Association of Union Plumbers and Pipefitters (UA)

Clean Air Task Force

Utility Workers Union of America

International CCS Knowledge Centre

National Mining Association

International Brotherhood of Boilermakers

Carbon Capture Coalition

United Mine Workers of America

Carbon Utilization Research Council

Wyoming Mining Association

Information Technology and Innovation Foundation

JB Energy Partners, LP

Caprock Carbon, LLC

SeaChange, Inc.

Braemar Energy Ventures

LanzaTech

NSI Inc.

Carbon Solutions LLC

Svante Inc

Advanced Resources International, Inc.

Capital Power

Carbon GeoCapture

Glenrock Energy

Avalon International Corporation

LSB Industries, Inc.

Chart Industries, Inc.

Mitsubishi Heavy Industries America

Oxy Low Carbon Ventures

Basin Electric Power Cooperative

Prairie State Generating Company

Carbon America

Cemvita Factory Inc.

Zero Carbon Partners, LLCg

Jupiter Oxygen Corp

Midwest AgEnergy

Siouxland Energy Coop

Battelle

Elysian

Baker Hughes

GE Power

Archaea Energy, Inc.

Sustainable Energy Solutions, Inc

CarbonQuest

Rainbow Energy Center

Honeywell

Brown Brothers Energy & Environment, LLC

Enchant Energy

DTE Energy

Carbon Wrangler LLC

Great River Energy

Carbon Direct

Blue Planet Systems Corp.

CarbonFree

Wolf Carbon Solutions U.S.

Xcel Energy

New Energy Risk

Air Company

Algae Biomass Organization

Ringneck Energy

Conservative Texans for Energy Innovation

Minnkota Power Cooperative

Calpine

Shell

Systems International & The ZEROS Project

Illinois Clean Fuels LLC

Spry Holdings

CC:

The Honorable Charles Schumer
Majority Leader
U.S. Senate

The Honorable Joe Manchin
Chairman
Senate Committee on Energy and Natural Resources