CARBON CAPTURE COALITION

Carbon Capture Coalition Statement for the Record

United States Senate Committee on Environment and Public Works

Committee Hearing: "Improving the Federal Environmental Review and Permitting Processes," February 19, 2025

Introduction

The Carbon Capture Coalition (the Coalition) appreciates the opportunity to submit this statement for the record to the US Senate Environment and Public Works Committee for the February 19, 2025, hearing on improving the federal environmental review and permitting processes.

Carbon management technologies, including capturing carbon dioxide (CO_2) from industrial facilities, power plants, and the ambient air, are an enabling technology platform for the production of cleaner energy and materials. Taken together, they are essential tools in a broader federal strategy to bolster American leadership in technology innovation and expand clean energy production while providing air quality, jobs, and local economic benefits to communities and regional economies.

The nationwide adoption of carbon management technologies requires proper implementation of enacted laws and an efficient and timely permitting system. This includes permitting CO_2 storage wells via the Environmental Protection Agency's (EPA) Underground Injection Control (UIC) Class VI Well Program, and providing appropriate permitting frameworks for CO_2 pipelines. Additionally, continued implementation of the necessary supportive policy framework for carbon management technologies includes:

- Providing regulations for the most recent enhancements to the federal Section 45Q tax credit;
- Continued implementation of funding for development and commercial deployment provided through the Infrastructure Investment and Jobs Act;
- Finalizing additional regulations for pipeline safety at PHMSA; and
- Promulgating and finalizing regulations for the storage of CO_2 in the outer continental shelf at BOEM and BSEE.

About Us

The Coalition is a nonpartisan collaboration of more than 100 companies, labor unions, and conservation and environmental policy organizations. Coalition members work together to lay the groundwork for the necessary portfolio of federal policies to enable nationwide, commercial-scale deployment of carbon management technologies. The full suite of carbon management technologies is crucial to driving down emissions across sectors, bolstering domestic energy and industrial production, and supporting workers with a broad range of skill sets. Carbon management includes carbon capture, removal, transport, reuse, and storage from industrial facilities, power plants, and ambient air.

Existing Domestic Framework of Carbon Management Policies

For more than a decade, the Coalition has worked with a broad group of bipartisan Members of Congress to realize a wide range of policy achievements, including:

- The bipartisan reform and expansion of the federal Section 45Q tax credit, the foundational financing mechanism for carbon management projects, in the 2018 FUTURE Act;
- Historic increases in funding to retool and expand federal research, development, and demonstration (RD&D) carbon management programs; and
- Groundbreaking legislation to prioritize the build-out of CO2 transport and storage infrastructure in the bipartisan Storing CO_2 and Lowering Emissions (SCALE) Act.

Most recently, the enhancement of the 45Q tax credit increased credit values across industry, power, and direct air capture and moved the commence-construction deadline for projects to the end of 2032. This robust framework has helped generate unprecedented interest in domestic carbon management deployment, with an ever-growing list of announced projects in the last several years. In 2023 alone, 120 carbon capture, removal, reuse, and storage projects throughout the US were announced. As of now, there are 276 announced projects and counting, with a combined total capture capacity of nearly 200 million metric tons per year. Despite this impressive progress, we are still not on track to meet global carbon management deployment goals, which require one billion tons of carbon capture capacity deployed by 2030, or more than four times the current capture capacity.

Current Challenges to Constructing Carbon Management Projects

While existing laws and regulations provide a strong foundation that has launched the industry toward commercial deployment, the sectors that make up the carbon management value chain face significant headwinds to maturing and deploying nationwide. Current challenges include an increasing gap between available financing and costs of capital, as well as delays and uncertainty in the permitting process for transport and storage infrastructure. Because of these obstacles, recently enacted supportive policies must mark the beginning, not the end, of necessary efforts to build the portfolio of available federal policies for carbon management technology deployment.

Challenges in Project Financing

Domestically, the 45Q tax credit remains the key federal policy mechanism to incentivize carbon management projects. Bipartisan-supported enhancements to the 45Q tax credit made in 2022, coupled with historic policy support included under the Infrastructure Investment and Jobs Act (IIJA), have resulted in almost $1.7 billion in federal and private investments being injected into diverse regions of the country over 10 states. Maintaining and building upon the credit's utility to American businesses is essential to ensuring these technologies achieve commercial liftoff. That said, further adjustments to the tax credit will be necessary to ensure investment certainty and business model flexibility and ensure these early investments translate into steel in the ground.

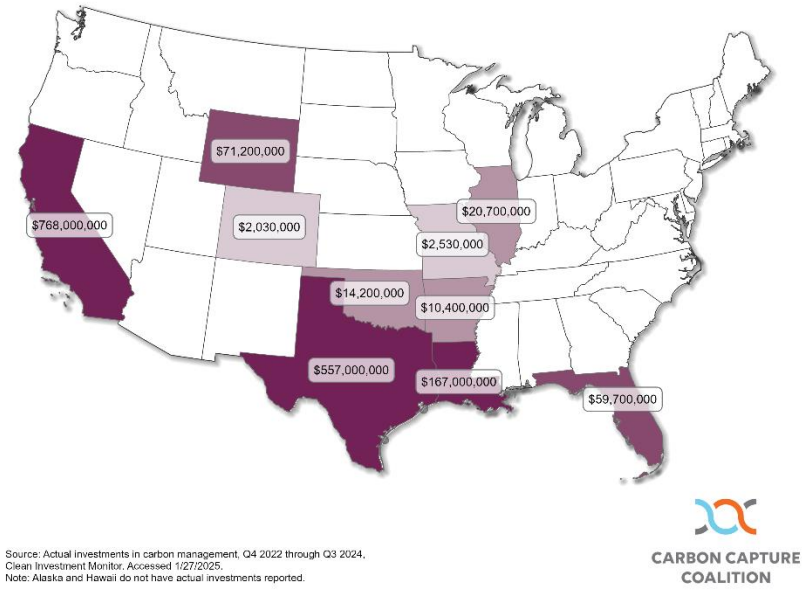

Figure 1: Federal and private domestic investments in carbon management.

Current economics for project deployment are challenging due to a combination of inflationary pressures on raw materials and components, labor, as well as higher interest rates for securing capital. The effect of rising costs is particularly acute for those sectors that have higher costs to deploy carbon management technologies, which includes coal and natural gas-fired power generation, diverse industrial sectors such as steel, cement, basic chemicals, and fertilizer, as well as direct air capture. Importantly, announced projects in these sectors make up more than half of the total domestic project announcements to date.

Challenges in Transport and Storage Project Permitting

Similar to the buildout of supportive infrastructure for increasing the supplies of reliable, affordable energy, carbon management project deployment has been hampered by permitting barriers that have hindered the efficient and responsible deployment of carbon management projects. Announced carbon capture, direct air capture (DAC), and supportive CO_2 transport and storage infrastructure projects cannot be deployed without effective and timely permitting processes. Recognizing the need to reform the nation's permitting framework, the Coalition developed and published a set of permitting principles in 2023 to ensure that any federal legislation modifying the federal permitting process aligns with carbon management project deployment timelines and incorporates robust community consultation. In addition to the broader permitting recommendations contained within the Coalition's developed principles, the Coalition has two high priorities in 2025 we would like to direct to the Committee's attention.

The Permitting Framework for the Safe, Geologic Storage of CO_2

The EPA's UIC program oversees federal permitting of secure geologic storage through its Class II and Class VI well programs. The EPA tailored the Class VI program rules to specifically address the permanent storage of CO_2 and ensure that wells are appropriately sited, constructed, tested, monitored, funded, and closed once injection activities are completed. Project developers looking to store CO_2 securely underground in appropriate geologic formations must receive permits to construct Class VI wells from EPA or relevant state, territory, or Tribal Nations that have been granted primary enforcement authority, referred to as primacy, by EPA. The EPA can grant primary enforcement authority (also known as primacy) to individual states, territories, or Tribal nations, which delegate authority to administer certain injection well classes under the UIC program in accordance with federal regulations. Importantly, states, territories, or Tribal Nations can be approved for this delegation of primacy only when their regulations meet or exceed the federal UIC requirements.

The queue of federal Class VI injection well permit applications under review at EPA is ever-growing. As of February 2025, that queue includes 56 projects with a total of 161 well applications across 14 states currently under review by the agency (these figures do not include those projects under review by states with primacy). While EPA has publicly stated its commitment to a 24-month application review process, around 16 percent of the projects under review are now past that mark.

This overall lack of progress affirms the need for timely and efficient review of Class VI well permit applications and state primacy applications, which remains a top priority for the Coalition. **As such, the Coalition recommends EPA commit to reviewing and providing final decisions on individual Class VI injection well applications within 18 months of those applications having been deemed "administratively complete."**

Permitting Interstate CO_2 Pipelines

Robust infrastructure to safely transport and securely store captured CO_2 in geologic formations is an essential component of any broader energy and environment strategy. Carbon management projects, like many of their clean energy counterparts, are complex – and ensuring all pieces of a project come together is necessary to scale the deployment of these technologies across the economy.

While the nation's current permitting regime has been in place for decades, as this industry continues to expand in the near-term, gaps in policy for permitting these projects, among others in the energy sector, have created delays and bottlenecks at critical junctures of project deployment. One example of this is with regard to the buildout of regional CO_2 transport infrastructure systems, which requires efficient and effective permitting grounded in robust environmental protections and community engagement.

It is estimated that domestic CO_2 transport and storage infrastructure will need to expand to anywhere between 25,000 and 65,000 miles to enable the economywide deployment of carbon capture technologies and reduce emissions. For comparison, nearly 385,000 miles of operational pipelines in the US currently carry petroleum, natural gas, oil, and other

products. Unlike natural gas pipelines, which have federal siting authority, the siting and permitting of CO_2 pipelines currently occurs on a state-by-state basis, subject to regulations put forth by states impacted by their construction. Ensuring the continued safety and reliability of CO_2 pipelines as this network expands is a top Coalition priority.

Carbon capture, removal, reuse, transport, and storage projects and associated infrastructure must be responsibly deployed at the pace and speed of growing investor and developer interest in these technologies. In its current state, the available framework is falling short, causing delays in the siting and construction of interstate CO_2 pipelines and the permitting of geologic storage wells. In some cases, these delays have led to wholesale cancellation of projects.

Establishing an optional pathway for federal siting authority for interstate CO_2 pipelines will enable efficient and responsible build-out of the necessary CO_2 pipeline network. Providing similar parity for all linear infrastructure types would enable more effective coordination, planning, and siting across federal agencies to lower impacts for wildlife, landowners, and local communities. **However, current and future CO_2 pipelines that are well served by the current state-by-state regulatory siting authority should be allowed to continue under the current state-by-state process.**

Conclusion

Carbon management technologies, including carbon capture, removal, reuse, transport, and storage, are crucial tools for balancing the increasing need for affordable, reliable energy that drives the American economy with the global imperative to reduce carbon emissions. Together, they are an enabling technology platform for the production of cleaner energy and materials and are important in the effort to continue growing our economy and providing Americans with family-sustaining jobs. Combined with responsible and timely permitting reforms, effectively implementing the existing portfolio of available policies, with additional changes to the available incentives, will provide certainty to investors in carbon management technologies and create a favorable environment for scaling projects.

The Carbon Capture Coalition appreciates the opportunity to comment on the important topics of today's hearing and the Committee's continued support for advancing federal policies to enable greater deployment of carbon capture, removal and reuse technologies and associated CO_2 transport and storage infrastructure. We look forward to working with the Committee in a bipartisan manner to identify the appropriate next steps to ensure these technologies can scale across the economy.

Should you have any questions about anything outlined in this statement, please contact Madelyn Morrison, Director of Government Affairs, Carbon Capture Coalition at mmorrison@carboncapturecoalition.org.