On June 30, 2021, the White House Council on Environmental Quality (CEQ) delivered a Carbon Capture, Utilization and Sequestration (CCUS) report to Congress in accordance with the Utilizing Significant Emissions with Innovative Technologies (USE IT) Act passed in December 2020. The CEQ report highlights an inventory of existing permitting requirements for CCUS deployment and identifies best practices for advancing the efficient, orderly and responsible development of CCUS projects at
an increased rate.

The Biden Administration is “committed to accelerating the responsible development and deployment of CCUS to make it a widely available, increasing cost-effective, and rapidly scalable climate solution across all industry sectors.” CEQ Chair Brenda Mallory recognized that in order “[t]o avoid the worst impacts of climate change and reach President Biden’s goal of net-zero emissions by 2050, we need to safely develop and deploy technologies that keep carbon pollution from entering the air and remove pollution from the air...The report ... outlines a framework for how the U.S. can accelerate carbon capture technologies and projects in a way that benefits all communities.” Development of CCUS projects and related infrastructure will be encouraged and favorably looked upon by the Biden Administration as a demonstrable example of how it’s seeking to combat climate change.

**CCUS - OPPORTUNITY OF THE FUTURE FOR MIDSTREAM COMPANIES?**

CCUS refers to a set of technologies that remove carbon dioxide (CO2) from the emissions of point sources or the atmosphere and permanently sequesters them. In addition to removing CO2, carbon capture technology has the potential to remove other types of pollution, such as sulfur oxides. According to leading scientists and experts, removal of CO2 from the air is essential to addressing the climate crisis and alleviating the most severe impacts of climate change. Beyond the impact carbon capture technology will have on the climate crisis, CCUS will continue to have a valuable role in the US economy as the technology continues to evolve.

The CEQ report makes it extremely clear that any effective nationwide rollout of CCUS is heavily dependent on a massive buildout of pipelines for CO2 transportation infrastructure. Currently, there are approximately 45 CCUS facilities in operation or in development and 5,200 miles of dedicated CO2 pipelines. The number of CCUS facilities and the breadth of dedicated CO2 pipelines will need to expand at a rapid rate if CCUS is to become an effective tool for meeting net-zero emission by 2050.

Establishing CCUS at scale is going to be heavily dependent on—and presents a great opportunity for—midstream pipeline developers. Despite the 5,200 miles of CO2 pipelines and the potential to employ “orphaned” pipeline networks previously used by the oil and gas industry once remediated, there is no current network of CO2 pipelines at a scale large enough for permanent carbon sequestration across all industrial sectors. Thus, to achieve climate goals set by the Biden Administration, a significant amount of CO2 pipelines will need to be developed. According to the CEQ report, expansion of CO2 pipeline infrastructure in “the near term is critical to CCUS project development, and that it must be carefully planned in a way that engages communities.”

Accordingly, should the United States wish to meet its goal of net-zero emissions by 2050, research suggests that CCUS deployment should increase tenfold over the next decade. “To reach net-zero emission targets, CCUS is essential; however, the current CO2 transport infrastructure for large-scale CCUS build-out is not sufficient. Estimates vary on what is required to meet the demand of large scale efforts in the United States, but there is a clear consensus that CO2 pipelines are critical to the
The CEQ report details the panoply of existing and proposed federal financing mechanisms available to CCUS project developers. Incentives, structures and policies, such as the Section 45Q tax credit, California’s Low Carbon Fuel Standard and the US Department of Energy’s research, development, demonstration and deployment, are expected to quicken CCUS deployment. Further, the Consolidated Appropriations Act, 2021 enacted on December 27, 2020, allows “CCUS projects to be identified as covered projects under Title 41 of the FAST Act, a statutory program designed to improve the timeliness, predictability and transparency of the Federal environmental review and authorization process for significant infrastructure projects.” The enactment of such policies are designed to make the development of CCUS facilities more appealing to potential developers and investors.

Additional incentives to attract responsible CCUS deployment are under consideration. For instance, the Storing CO2 and Lowering Emissions (SCALE) Act, introduced in March 2021, creates a financial incentive modeled after the Transportation Infrastructure Finance and Innovation Act, which was designed to support transportation projects of national and regional significance. The carbon dioxide transportation infrastructure finance and innovation program would provide federal loans and credits for government entities and public utilities developing CCUS projects, including common carrier pipelines. In addition to US President Joe Biden’s American Jobs Plan that seeks to reform and expand the Section 45Q tax credit, several bipartisan bills have been introduced and include provisions to reform and enhance Section 45Q with a focus on making it more effective for hard-to-decarbonize sectors.

The CEQ report also cautions that it is imperative the deployment of CCUS technology be responsible and properly structured. A successful deployment of CCUS enables the deployment of carbon dioxide removal (CDR). Use of CDR, which removes CO2 from the ambient air, may need to be utilized to meet net-zero goals. Thus, the implementation of CCUS will either enable or constrain future CDR development. The cautionary statements made within the CEQ report also come with guidance documents and best practice resources to assist in and encourage the responsible implantation of CCUS technology.

In developing CCUS facilities and implementing CCUS technology, the CEQ report identifies opportunities within the transportation industry where the federal government can facilitate the build out of a more extensive pipeline network within the United States. The CEQ report further notes that the federal government does have the statutory authority for the authorization and deployment of CCUS activities offshore; however, further regulatory detail needs to be in place to ensure that comprehensive management of CCUS activities protects the coastal, marine and human environment.
The CEQ report also states that the CEQ may potentially work with federal agencies to continue to facilitate “efficient, orderly, and responsible deployment of CCUS.” In the near future, the CEQ will convene an interagency working group to develop further guidance based on the CCUS report and will establish, at a minimum, two CCUS regional task forces, as required by statute.

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