

# EPA and DOE Carbon Capture and Storage Roundtable Webinar

## August 11, 2022

### Summary

#### Overview

The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) hosted a stakeholder webinar on Carbon Capture and Storage (CCS) on August 11, 2022. The purpose of this webinar was to engage in facilitated discussions with stakeholders to obtain further input on CCS. The webinar focused on stakeholders in EPA Regions 6 and 9. This webinar was held virtually. Participating stakeholders were encouraged to share comments in the Zoom chat box and submit questions through the Zoom Q&A interface. During the open comment phase of the webinar, participants were encouraged to use the “raise hand” function on Zoom to voice their comments and questions.

The webinar was facilitated by Laura Bachle, EPA contractor, and the EPA Region 6 and 9 Regional Administrators. The facilitator welcomed and thanked participants for joining the webinar, shared the agenda with webinar participants, and introduced the participating EPA and DOE staff.

After the welcome and introductions, EPA and DOE staff delivered presentations. The first presentation covered an overview of CCS as well as a demonstration of the potential technical benefits of CCS. The second presentation focused on DOE’s Energy Justice Framework, including the Justice40 (J40) initiative and how federal initiatives like J40 apply to CCS. The third and final presentation was provided by EPA on its Class VI UIC Program, including Class VI permitting and primacy processes.

After the presentations, the webinar transitioned to a live Q&A session, followed by a discussion of community concerns. The webinar ended with closing statements and suggested next steps.

Additional details on the webinar are summarized below.

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#### Webinar on August 11, 2022, from 7-9 pm EDT

The facilitator was Laura Bachle, EPA contractor. Speakers included:

- Dr. Eartha Nance, Regional Administrator, EPA Region 6
- Martha Guzman, Regional Administrator, EPA Region 9
- Bruno Pigott, Deputy Assistant Administrator, Office of Water, EPA
- Shalanda Baker, Director of the Office of Economic Impact and Diversity, DOE
- Dr. Jennifer Wilcox, Principal Deputy Assistant Secretary, Office of Fossil Energy and Carbon Management, DOE
- Dr. Holly Buck, Management and Program Analyst, Office of Carbon Management, DOE

Over 50 stakeholders, representing various non-governmental organizations (NGOs), as well as other EPA staff, participated in this webinar.

A more detailed summary of the presentations and discussions is provided below, ordered thematically.

## Discussion

### Well Plugging

Requirements for well plugging within the injection zone were discussed, and rules and regulations regarding well plugging were clarified. In the Area of Review, any pre-existing wells that penetrate the injection zone must be plugged, in order to prevent leakage of carbon dioxide (CO<sub>2</sub>). Plugging or phased plugging of these wells is a prerequisite for injection.

### Financial Assurance

EPA's requirements for financial assurance in permit applications were discussed and clarified, and a [website source](#) for further information was distributed via the chat function in Zoom. The Class VI Rule requires permit applicants to provide documentation of ability to pay for the safe operation of the injection well, potential emergency and remedial response, and post-injection site care and closure. The specifics of each financial mechanism were not discussed, but EPA noted that there are many different ways for the project applicant to demonstrate that it will have sufficient financial resources available throughout the life of the project a Class VI project.

### Emergency Response and Remediation

EPA's requirements for emergency response and remediation were discussed and clarified. The applicant must submit and comply with an agency-approved plan to deal with emergencies such as seismicity, leakage of CO<sub>2</sub>, and aquifer contamination. Emergency response and remediation requirements should take into account the presence of population centers, land uses, public water supplies, and feedback from the local community to ensure adequate and thorough emergency planning measures that are localized.

### Hazards of CCS

Stakeholders noted that CCS could be detrimental to emissions reduction efforts, as CCS could cause people to think that business-as-usual emissions will be easily removable from the atmosphere. DOE noted that CCS could help with hard-to-avoid emissions, like those from cement. DOE explained that CCS is a mitigative tool to be used in conjunction with other climate measures.

## Comment Themes

### Life Cycles of Projects

Stakeholders raised concerns of the life cycles of injection wells, stating that CCS is designed to store carbon in perpetuity. Stakeholders noted that as of now, certain monitoring records may be retained for only ten years. However, other classes of injection wells have experienced blowouts seven to ten years following injection. Participants expressed concern about possible diminishing of monitoring over time and noted that measures must be put into place to enforce continual monitoring and prevent blowouts.

Other concerns expressed by participants related to project life cycles included the possibility that carbon capture programs and the associated government subsidies could prolong the lives of fossil power plants and refineries. Participants stated that GHG emissions and concentrations of PM<sub>2.5</sub> near fossil power plants and refineries have been reported, and that when a power plant or refinery lies in a disadvantaged community, its closure could benefit the health and safety of the people living in its

vicinity. Participants stated that financial assurance and liability responsibilities are unclear, and the technology itself is untried over the long term.

### **Siting**

Stakeholders voiced concerns over the siting of Class VI wells, noting that injection wells will likely be built in disadvantaged communities, causing further harm to already-suffering communities. Specifically, the Gulf Coast was mentioned; Louisiana is in the process of seeking primacy, and unique concerns about well siting in this area were raised. Stakeholders noted that measures must be taken to prevent continued harm to disadvantaged and low-income communities.

Stakeholders also expressed concerns regarding siting of Class VI wells being focused on wetlands, including that Clean Water Act regulations against development of wetlands would be side-stepped, and that injection wells would be drilled into protected areas.

Stakeholders also raised concerns over potential co-location of other industries related to CCS in these communities, such as production of solvents and other chemicals used in the injection process.

### **Benefits of CCS**

Many participants voiced concerns regarding whether CCS will be beneficial. It was noted several times that money and time should be invested in decarbonization and expanding renewable energy rather than CCS. DOE noted that CCS is meant to be a complement to decarbonization, not a replacement for it, and that CCS will be required to meet the goals of net zero emissions by mid-century.

### **Cost Burdens**

Stakeholders shared concerns regarding possible cost burdens to low-income communities. They noted that increased costs would likely fall onto communities that have already borne the brunt of climate change-related consequences, especially in the instance that projects are being carried out through investor-owned utilities and risk is transferred to ratepayers. Stakeholders mentioned that there is a “moral hazard” attached to advancing these projects that must be acknowledged. EPA and DOE staff responded that measures should be taken to ensure that costs and potential harms do not further burden disadvantaged communities.

### **Pipelines**

Stakeholders raised concerns over the possible use of pipelines to transport CO<sub>2</sub>, noting the pipeline leak in Satartia, MS, and the broader risks of pipeline use. EPA and DOE are committed to working with the Department of Transportation to prevent similar events from occurring. Transport of CO<sub>2</sub> may also happen by rail or by ship, not only by pipeline.

### **Decision-making Process**

Stakeholders raised several concerns regarding how the government will make decisions on well siting and Class VI primacy, including language access, notice, and comment periods (including who gets notified), and how states determine who is a party to decision-making. It was mentioned that Justice40 may not protect all EJ communities and that already overburdened communities have not asked for CCS, so channels for public participation are even more important. Stakeholders expressed that agencies

need to provide assurance that stakeholder participation will be reflected in decisions before there is more commitment made from EJ stakeholders.

*The EPA regulations summarized in this document contain legally binding requirements. This document does not substitute for those regulations, nor is it a regulation itself. Thus, it does not impose legally binding requirements on EPA, States, or the regulated community, and these summaries may not apply to a particular situation based upon the circumstances.*