New Report Explores Federal, State Carbon Dioxide Pipeline Regulation

WASHINGTON (June 28, 2023) — The National Association of Regulatory Utility Commissioners today released a new report authored by Public Sector Consultants, *Onshore U.S. Carbon Pipeline Deployment: Siting, Safety, and Regulation*, that explores barriers and opportunities for the deployment of carbon capture, utilization and storage technology.

CCUS technology has significant potential to reduce greenhouse gas emissions and mitigate the impact of climate change, particularly in hard-to-decarbonize industrial and commercial sectors. Carbon capture technologies can isolate carbon dioxide emissions from fuel-intensive industrial processes or power generation. Captured carbon is then either used as a feedstock in another process, such as enhanced oil recovery, or permanently stored in underground reservoirs. Unless utilization or storage occurs at the same location as carbon capture, which is rare, carbon must be transported from a point source to a utilization or storage site.

Pipelines offer significant advantages for large-scale transportation of carbon dioxide over other methods. Reaching net-zero carbon emissions in the United States by 2050 will require between 29,000 and 66,000 miles of carbon pipelines between point sources to utilization and storage sites, according to studies led by the Great Plains Institute in 2020 and Princeton University in 2021. As of October 2022, the U.S. had deployed fewer than 6,000 miles of carbon pipelines, according to the U.S. Department of Transportation.

“The NARUC Subcommittee on Clean Coal and Carbon Management is always exploring the potential uses of new technologies to help minimize emissions,” said Subcommittee Chair Mary Throne of the Wyoming Public Service Commission. “The subcommittee believes that supporting the advancement of technologies such as CCUS is one step of many that will help reach greenhouse gas emission reduction goals and maintain system reliability.”

Although closing this gap is important to achieving low-carbon goals, carbon pipelines operate in a complex and uncertain local, state and federal regulatory landscape and face public concerns about safety and siting. This report covers numerous regulatory issues surrounding carbon pipeline development, including the current narrow federal definition of carbon dioxide and the considerable variation in state and local governments’ laws and regulations. The report serves as a primer for regulators and stakeholders who seek to better understand the regulatory challenges and opportunities facing this critical infrastructure.

“Several public utility commissions have recently been presented with interstate carbon pipeline proposals,” said Kiera Zitelman, technical manager with NARUC’s Center for Partnerships and Innovation. “With increased national attention on carbon management, this timely report aids state regulators as they gather information and make decisions affecting carbon transportation infrastructure.”

“We are pleased to have worked with NARUC’s Center for Partnerships and Innovation to develop this report,” said Colin Seals, director at Public Sector Consultants, a Michigan-based public policy research firm. “I believe it will serve as an important resource to help decisionmakers navigate the regulatory uncertainty around this emerging technology.”
Onshore U.S. Carbon Pipeline Deployment: Siting, Safety, and Regulation was produced with support from the U.S. Department of Energy via the DOE-NARUC Coal Modernization and Carbon Management Partnership.


NARUC will host the report’s authors in a public webinar moderated by Chair Throne on June 29 from 2:00 to 3:00 pm ET. Please register at https://bit.ly/3XaiUX8.

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About NARUC

NARUC is a non-profit organization founded in 1889 whose members include the governmental agencies that are engaged in the regulation of utilities and carriers in the fifty states, the District of Columbia, Puerto Rico and the Virgin Islands. NARUC’s member agencies regulate telecommunications, energy, and water utilities. NARUC represents the interests of state public utility commissions before the three branches of the federal government.