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The Gulf of Mexico is ready for carbon storage. So why is the Biden administration holding it up?

By **James Osborne**, *Washington Bureau*May 7, 2024











The Department of Interior is 18 months past a congressional deadline for establishing a system for leasing and permitting carbon storage projects in the Gulf of Mexico and other federal waters.

Brett Coomer/Houston Chronicle

WASHINGTON — The Gulf of Mexico's depleted oil and gas fields have caught the attention of carbon storage developers, encouraged by decades of geologic studies and intent on claiming

<u>lucrative tax credits for capturing emissions</u> from the region's sprawling network of energy and petrochemical facilities.

But 18 months past a deadline set by Congress in 2021's Bipartisan Infrastructure Law, the Biden administration continues to debate how best to move ahead on creating a system for leasing and permitting carbon storage projects in federal waters. The Interior Department is still consulting with industry and counterparts in other countries and has no timeline on when its draft rule will be ready, Interior Secretary Deb Haaland testified at a Senate hearing last week.

"Creating a new regulatory program for a new applied technology, it's very technical and very complex," she said. "We want to make sure we're doing a good job."

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The Gulf of Mexico would seemingly make an ideal focal point of U.S. carbon storage efforts, technology the United Nations and the Biden administration have identified as crucial to decarbonizing the global economy. Exxon Mobil, which is leading a conglomerate of chemical and industrial companies aiming to store Houston-area emissions in the Gulf, estimates the Gulf's carbon storage capacity at more than 500 million metric tons — equivalent to 130 years of

emissions from the U.S. industrial and power sectors.

But storing carbon offshore brings its own host of challenges, experts say. Interior officials must decide a regulatory structure for storing carbon in depleted oil and gas fields that are many miles from shore and surrounded by active oil and gas operations, a task that would typically be handled by the Environmental Protection Agency.

At the same time, they must decide on monitoring and performance standards, seeking to avoid the problems suffered by other projects overseas. <u>Chevron's Gorgon project almost 40 miles</u> off the northwest coast of Australia has so far struggled to meet is promised storage targets.

"Theres plenty of depleted fields in the Gulf that could serve as storage, and I imagine (Interior is) contemplating what's involved in converting those facilities," said Tip Meckel, a geologist at the the University of Texas at Austin's Bureau of Economic Geology, who sits on the Biden administration's carbon storage task force. "It's a big challenge because it takes in all the federal waters, not just the Gulf."

There are <u>approximately 10 offshore carbon storage projects</u> under development in the Gulf, with companies including Exxon, Chevron, Repsol and Venture Global looking to pump carbon dioxide from coastal refineries, petrochemical plants and other industrial facilities beneath the sea floor.

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Those projects are mostly in state waters, acreage that can be leased through agencies in Texas and Louisiana, but companies are eager to go beyond the three- to nine-mile boundary where state waters end, said Erik Milito, president of the National Ocean Industries Association, which represents offshore energy developers.

"Investment is being made in what are billion-dollar projects in places like the North Sea and southeast Asia, and we're sitting back and watching that money flow to other parts of the world," he said. "The Gulf should be a global leader in carbon sequestration. Time is a wasting."

Norway has been storing carbon dioxide beneath its sea floor since 1996, and in recent years <u>has</u> <u>issued seven licenses for projects</u> in the North Sea and Barents Sea. Chevron has been <u>storing</u> carbon dioxide offshore Australia since 2019.

But environmentalists continue to raise doubts about the technology, including whether the carbon dioxide will remain underground and not leak out into the atmosphere. In a report last year, the <u>Center for International Environmental Law cautioned</u> that offshore carbon storage hubs such as those being developed in the Gulf of Mexico posed "uncalculated risks."

"Despite the fanfare around (carbon storage), it is a costly and risky endeavor and nearly all the world's past (carbon storage) projects have experienced unexpected problems or failed outright," the report said.

Offshore might nevertheless present a less risky proposition than onshore and shallow water-carbon storage operations.

There are no landowners to negotiate with or freshwater aquifers to contaminate, problems with which onshore carbon storage facilities must frequently contend. And depleted onshore and near-shore oil and gas fields, particularly older ones, often have unmapped wells that <u>if not properly</u> capped can offer an escape vent for carbon dioxide.

That is not a problem for oil fields farther offshore, which have been developed more recently and typically have far fewer holes from drilling than onshore and shallow water fields, said Graham Bain, an analyst with Enverus Intelligence Research.

"What's attractive for offshore projects is the lack of penetration, and the lack of fresh water

issues, so you're lowering the risk," he said. "In older fields you could suddenly have CO2 escaping when you had no idea there was (well) penetration. If that happens in the early stages that would be really negative for the industry."

Figuring out how best to manage carbon storage in federal waters has been a yearslong project for the Interior Department. Its Bureau of Ocean Energy Management <u>released a report in 2019</u> titled, "Best Management Practices for Offshore Transportation and Sub-Seabed Geologic Storage of Carbon Dioxide," comparing and contrasting various regulatory schemes over more than 250 pages.

But patience on Capitol Hill is running thin, with members of both parties eager to see carbon storage projects up and running.

Sen. Joe Manchin, D-W.V., chairman of the Senate Energy and Natural Resources Committee, chastised the Biden administration last week, both for delays in offshore leasing at Interior and the backlog of onshore and carbon storage projects waiting for permits at EPA.

"We are all understanding theres a transition coming and we have to be part of that transition," he said. "But if the administration is fighting us on sequestration it's an oxymoron to say we can't do (oil and gas development) because you're still putting out CO2."

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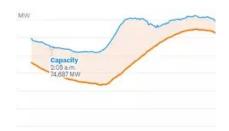


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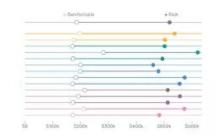
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