

States Enact Legal Frameworks to Govern Carbon Capture & Storage

ACCORDING to the latest report from the Intergovernmental Panel on Climate Change, transitioning away from fossil fuels is insufficient to meet climate goals, particularly for difficult to decarbonize sectors that cannot easily make this transition. Under many of the IPCC's scenarios, technologies to capture emissions before they are released, remove legacy emissions from the atmosphere, and safely sequester the carbon will need to be developed at scale.

The administration agrees. "Drastically cutting emissions across our economy through next-generation carbon management technologies is a critical component of President Biden's strategy to combat the climate crisis," said Secretary of Energy Jennifer M. Granholm, announcing the latest \$2.52 billion in funding under the Bipartisan Infrastructure Law to catalyze investments in carbon capture systems.

But as practitioners in the energy transition space know, incentivizing capital investment in new technologies is necessary but not sufficient. Equally robust efforts are needed to develop workable legal frameworks to facilitate this expansion and steer it in an environmentally responsible manner. Much is being done at the state level, where new laws governing carbon capture, utilization, and sequestration—CCUS—are rapidly evolving. At least 15 states have enacted significant legislation, addressing siting, review, permitting, operation, and liability. These states range broadly from California and Utah in the West to Texas and Louisiana on the Gulf, to North Dakota and Nebraska in the Great Plains, and to West Virginia in the East. This trend can be expected to continue in other states as well.

Developing the law in this area requires contributions from lawyers in

multiple disciplines, including property, oil and gas, permitting, corporate, and tax. One of the areas the states are addressing, for example, is pore space ownership. When CO₂ is permanently stored underground in deep geologic formations, it fills gaps or voids known as *pore space*. As oil-and-gas practitioners are aware, it can be unclear which entities possess pore space rights, especially in areas with split mineral and surface estates, which can complicate negotiations between operators, landowners, and mineral rights holders. Multiple states have chosen to address this concern by clarifying ownership of pore space rights.

Siting carbon storage facilities is further complicated by the fact that there could be dozens or hundreds of property owners with claims to pore space rights in a given formation. States have established mechanisms to authorize a carbon storage facility with the consent of a majority or super-majority of pore space owners, while ensuring equitable compensation for non-consenting owners. The specific mechanism varies from state to state, but can include pooling, amalgamation, integration, and unitization.

Some states have also addressed long-term stewardship of these sites, including mechanisms for transferring facilities to state ownership after injection ceases, wells are capped, and the CO₂ plume is stable. Some of these laws also establish trust funds and fee mechanisms to defray long-term costs that could be borne by the state.

Another big issue is state primacy for permitting injection wells. Underground injection wells are regulated by the federal Safe Drinking Water Act, implemented by EPA. Underground injection wells for permanent sequestration of CO₂ are categorized as Class VI wells. States can obtain primacy for

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Ethan Shenkman is a partner in the environmental practice at Arnold & Porter. Ethan.shenkman@arnoldporter.com.

Class VI permitting if they demonstrate their regulatory programs are no less stringent than EPA's. Many practitioners believe that state primacy will be necessary to develop capture at scale. To date, the agency has only issued Class VI permits for two projects—and none since 2015. Meanwhile, the backlog of Class VI permits pending before EPA has ballooned from 14 to 47 in just the past 10 months.

Only two states have received primacy so far (North Dakota and Wyoming), but this group may soon grow. EPA is expected to complete review of Louisiana's application soon. Arizona, Texas, and West Virginia have each entered the pre-application phase. In addition, the infrastructure bill appropriated \$50 million in grants to help defray the costs of state programs, and Pennsylvania has announced its intention to jump into the fray. Notably, EPA has made clear that state applicants must demonstrate how environmental justice and equity considerations will be incorporated into their permitting programs.

These and other state law developments are captured in the "CCUS Legislative Tracker," an interactive tool recently released on the Carbon Dioxide Removal Law webpage of Columbia Law School's Sabin Center for Climate Change Law (<https://cdrlaw.org/ccustracker/>). The tracker, maintained by Arnold & Porter, is designed to assist practitioners, regulators, project proponents, and researchers stay on top of these fast-moving trends.