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Acquiring and Defending Carbon Storage Rights

Carbon Capture and Sequestration (“CCS”), one form of which is known as Direct Air Capture, captures carbon dioxide (CO₂) from man-made sources before CO₂ is released into the atmosphere. The captured CO₂ is then injected deep into the ground for permanent sequestration. In the United States, the Department of Energy estimates that the total Direct Air Capture storage capacity for CO₂ is in the trillion of tons. Angela C. Jones & Ashley J. Lawson, *Carbon Capture and Sequestration (CCS) in the United States*, p. 12, CONGRESSIONAL RESEARCH SERVICE (Oct. 18, 2021), <https://sgp.fas.org/crs/misc/R44902.pdf>.

Much of that storage is available in the San Andres formation in the Permian Basin and the Gulf of Mexico, which could potentially store all the carbon released in U.S. production. See, e.g., Joe Blommaert, *The promise of carbon capture and storage, and a Texas-sized call to action*, INTERNATIONAL ASSOCIATION OF OIL & GAS PRODUCERS (June 8, 2021), <https://www.iogp.org/blog/benefits-of-oil-and-gas/opinions/the-promise-of-carbon-capture-and-storage-and-a-texas-sized-call-to-action/>; Mella McEwen, *Permian’s future could lie in storing CO₂ emissions*, MRT (Aug. 29, 2020) <https://www.mrt.com/business/oil/article/Permian-s-future-could-lie-in-storing-CO2-15524972.php>.

Meanwhile, the Biden Administration recently signaled its support of CCS through allocation in the recent Bipartisan Infrastructure Bill. See Nikesh Jindal, Marcella Burke, Laura Bushnell, Cason Hewgley, & Elizabeth Holden, *Infrastructure Bill Paves the Way for New Energy Investments and Technology* (Jan. 25, 2022), <https://www.kslaw.com/news-and-insights/infrastructure-bill-paves-the-way-for-new-energy-investments-and-technology>.

For companies seeking to reduce emissions through Direct Air Capture, one main obstacle will be acquiring the appropriate legal rights to inject into the ground. Companies will need to navigate federal and state-level regulatory hurdles, as well as potential opposition from NGOs.



I. Acquiring Carbon Storage Rights: Permitting and Land Use

There are four ways to acquire the right to inject carbon storage into a subsurface:

- (1) easements and surface use agreement from the owner;
- (2) title to the surface land (surface rights);
- (3) mineral estate to the land; and
- (4) acquire both surface rights and mineral estate.

Depending on which options landowners make available, easements may be the simplest and least expensive approach to acquiring carbon storage rights in a large area. Alternatively, purchasing title to the land and subsurface would guarantee long-term storage across large swaths of land.

Recently, numerous states have passed legislation to address underground storage. Such legislation frequently addresses issues of liability, monitoring, and ownership of pore space and CO₂. For example, Texas has both onshore and offshore carbon storage legislation. The most recent bill was signed by Governor Abbott in June 2021 (HB 1284, 2021) and granted the Texas Railroad Commission sole jurisdiction over Class IV Injection Wells and carbon storage.

II. Regulatory Hurdles

No matter which approach is taken to acquire storage rights, the operators must obtain the requisite permits from the relevant land office, either state or Federal. While the state permits will vary by location, the following federal permits may be applicable:

- The Environmental Protection Agency (EPA) requires Underground Injection Control Permits. The EPA has regulations for six types of underground well injections. These are controlled by the type of fluids and the depth injected. For example, Class VI wells are used to inject CO₂ for geologic sequestration.
- The Department of Interior (“DOI”) may require acquisition of a right-of-way permit if the injection is on public land. And the National Environmental Policy Act (“NEPA”) requires agencies to assess the environmental impacts of qualifying federal actions—a process that can take years to complete. And if the injection is offshore, permits under the Marine Protection, Research and Sanctuaries Act (“MPRSA”) Permit or the Outer Continental Shelf Lands Act (“OCSLA”) may also be required.

III. NGO Opposition and Other Concerns

Although carbon sequestration is intended to be a solution to global climate change, it is not universally supported. NGOs have expressed concern that CCS enables pollution by providing for a “net zero” calculation for emitting greenhouse gases, therefore relieving the pressure to transition from fossil fuels. In addition, NGOs may challenge CCS projects via citizen suits alleging the injection of carbon into the ground having adverse impacts, such as leakage and changes to natural systems, or that a particular use of pore space may not be in an appropriate geographic location.

Some environmentalists may consider Direct Air Capture no differently than they would any other waste storage facility and assert citizen suits under legal theories similar to those commonly asserted under RCRA or CERCLA. CCS requires high amounts of energy and resources to build and operate sequestration facilities—NGOs may challenge permits, possible fugitive emissions, or make legal claims on behalf of neighboring communities through Environmental Justice policies, a top priority for the Biden Administration. See Michael R. Leslie, Marcella Burke, and Granta Nakayama, *Environmental Justice Rises to the Forefront of EPA Policy* (May 14, 2021), <https://www.kslaw.com/blog-posts/environmental-justice-rises-to-the-forefront-of-epa-policy-2>.



Indeed, on May 13, 2021, the White House Environmental Justice Advisory Council listed CCS opportunities on its list of projects that are not believed to benefit a community. White House Environmental Justice Advisory Council, *Justice40 Climate and Economic Justice Screening Tool & Executive Order 12898 Revisions: Interim Final Recommendations*, (May 13, 2021), at 57–8. And companies can face lawsuits for green washing—making false or misleading advertisements that a company’s activities or products are more environmentally friendly than they actually are—when they advertise CCS activities inaccurately. See, e.g., Maxine Joselow, *Lawsuits target Exxon’s social media ‘green washing’*, CLIMATEWIRE (July 22, 2021), <https://www.eenews.net/articles/lawsuits-target-exxons-social-media-green-washing/>.

IV. Conclusion

CCS and Direct Air Capture are tools that can facilitate the energy transition and reduce global emissions. The United States has enormous capacity for carbon storage, which numerous companies have already begun to tap into. As interest in CCS increases, companies should prepare to take the appropriate legal steps to acquire storage rights through easements, surface use agreements, or otherwise; apply for permits; and trouble shoot NGO opposition.

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