New State Carbon Capture Laws: Key Points For Developers

By Sarah Grey, Ethan Shenkman and Samuel Pickerill (August 8, 2024)

Several states have broken new legislative ground by introducing or expanding legal frameworks for carbon capture and sequestration in the first half of 2024.

As discussed below, Alaska, Colorado, Illinois, Alabama and Pennsylvania each enacted significant new CCS legislation in their spring legislative sessions. The Western Governors' Association has also announced an initiative to support CCS in its region.

This recent activity continues a steady trend of state action to build out legal frameworks to govern CCS projects, seeking to attract the investment and jobs associated with this energy transition technology.

Nearly 20 states have now enacted significant CCS legislation, and over 30 states have seen CCS-related activity including legislation, permit applications or inclusion of CCS in state climate action plans.[1]

While there are some common themes across these states, many states also include unique approaches and requirements — which project proponents and investors should be aware of when considering potential projects and investment risk.

Alaska: New Procedure for CCS Projects, and Opening of Public Lands

Alaska's H.B. 50, passed on Aug. 1, incorporates many core provisions that are becoming common in state CCS statutes.[2] They include:

- A mechanism to encourage the transfer of pore space ownership to allow amalgamation when approved by regulators;
- New fees imposed on operators to fund the Carbon Storage Closure Trust Fund for long-term monitoring of storage facilities; and
- A path for long-term stewardship: 50 years after injection has concluded, an operator will be eligible to obtain a certificate of completion, which will transfer title to the stored carbon dioxide to the owner of the pore space, and transfer responsibility for long-term monitoring and maintenance to the state.[3]

The Alaska law also creates a two-step process of exploration and licensing that may open public lands to future storage operations. Interested operators must first obtain a carbon storage exploration license.

Following termination of the exploration license, if a license holder can demonstrate that the



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project will not interfere with existing water, oil, gas or other mineral interests, the license holder will be able to obtain a storage facility permit.

While the Alaskan state government has previously backed several CCS research and policy initiatives, there are still no storage facilities within the state that have applied for an injection permit. This new law may help change that, by significantly expanding the number of viable storage facility sites.

For one, the law clarifies the siting process for the nearly 30% of Alaskan land that is managed by the state. In addition, the law's new amalgamation process has no minimum consenting owner requirement — meaning a storage operator needs only to obtain the state's approval in order to store carbon dioxide under private land.

Colorado: A Legislative Framework That Expands on Past CCS Action

CCS featured prominently on the 2024 legislative agenda in Colorado, resulting in the successful passage of legislation in May that could provide greater certainty for CCS projects in the state.[4] The enacted framework:

- Establishes an ownership structure for pore space, with title in the pore space —
 referred to as the "sequestration estate" assigned to the owner of the surface
 estate if not otherwise severed, conveyed or reserved;
- Creates a process for project operators to unitize pore space through "geologic storage units," allowing operators to combine ownership interests across parcels, so long as the operator has the approval of 75% of the pore space owners, provides for how owners will be compensated, and adopts a management plan for injection;
- Approves the assessment of fees from CCS operators, which will be credited to the existing Carbon Management Cash Fund to support regulatory oversight;
- Establishes state agency oversight of CCS injection facility closure, including
 potential liability if an operator is found to have made a material misrepresentation;
 and
- Provides technical assistance for local governments to facilitate siting.

The Colorado Legislature also addressed CCS in 2023 by authorizing the state to apply for Class VI primacy, which would allow Colorado to take over permitting responsibility from the U.S. Environmental Protection Agency.

Colorado's action was likely motivated in part by its neighbor, Wyoming, which has successfully attracted CCS investment due to favorable geology and an established regulatory framework. Colorado, with similar geology, may now become more competitive in attracting CCS investment to the region.

Illinois: Sweeping CCS Legislation That Includes Unique Obligations for CCS Operators

Through the passage of S.B. 1289 on July 18, Illinois established a new framework for potential carbon capture projects in the state, following negotiations among both environmental and industry groups.[5] The statute includes:

- Formalizing pore space ownership with the surface owner, including a prohibition on severing pore space from the surface estate;
- Unitization procedures that allow project owners to combine ownership interests across multiple pore space owners, with the consent of 75% of the owners by surface area consent; and
- Special funds to support ongoing monitoring and regulation, as well as to support
 water resource planning, and an environmental justice grant program, supported by
 fees levied against CCS operators.

In addition to the standard features of a CCS regulatory framework, the Illinois statute adds several provisions focused on labor rights and environmental protections. They include:

- Environmental justice analyses, documenting the public health impacts of the CCS
 project on environmental justice communities and economically disadvantaged rural
 communities; evidence of public engagement with these communities; and
 alternative proposals for state policymakers that would improve outcomes for these
 communities;
- Project labor agreements that establish apprenticeship requirements for minorities and women, and agreements between operators and labor organizations regarding labor relations;
- Emergency response plans that minimize the threat posed by a release of the sequestered carbon;
- A requirement to demonstrate that a project will create no net increase in the allowable potential emissions of the six pollutants regulated under the Clean Air Act's NAAQS framework;
- Baseline reporting on air and soil conditions, as well as air and soil monitoring reports;
- Assessments of potential impacts to nearby air and water resources; and
- Financial assurance requirements.

The legislation also includes a moratorium on approvals of new carbon pipelines until the Pipeline and Hazardous Materials Safety Administration finalizes new safety rules, to expire by July 2026 if PHMSA has not finalized rules by that time.

The laws' clarification of pore space ownership and unitization procedures may help facilitate the siting of new storage facilities in Illinois. At the same time, new air permitting and other requirements may make it more complicated to install capture equipment at emitting facilities.

Stakeholders should follow the regulatory process closely as Illinois agencies develop rules to implement the new requirements.

Alabama: Clarity for Future CCS Projects, and an Open Door for Public Projects

H.B. 327, passed by the Alabama Legislature on May 9, establishes a process for carbon capture operators to plan future projects in Alabama:

- Unless conveyed separately or otherwise reserved, ownership of the surface estate and the pore space are both vested in the owner of the surface estate.
- The consent of two-thirds of owners by land area is required for the amalgamation of pore space rights, also establishing a process for compensating nonconsenting owners.
- The law creates a fund to support ongoing regulation of carbon capture facilities, as well as a process for transferring ownership to the state of Alabama. Operators may begin the state certificate of project closure and completion process 10 years after injection ceases.
- Enacting additional regulations for establishing CCS near existing coal or mineral operations, and a procedure for leasing public lands.[6]

Every state on the Gulf Coast now has had at least one CCS storage facility apply for an injection permit, and the regulatory clarifications in this law may make Alabama more attractive for stakeholders considering investments in the region.

Pennsylvania: A CCS Framework, and State Agency Authority to Develop Permitting Criteria

The Pennsylvania Legislature passed S.B. 831 on June 20, providing a framework for state agencies to implement a regulatory structure for CCS in the state.[7] Other features of the law include:

- Pore space tied to the surface estate unless severed through a separate conveyance, with a public hearing required for the conveyance of any pore space under public land;
- Cotenancy requirements on how parcels can be unitized for CCS projects, with project operators required to receive consent from 75% or more of the pore space owners to receive a collective storage order, and a prohibition on public land being unitized without the direct consent of the government;
- Implementation of a fee structure to support the Carbon Dioxide Storage Facility Fund, which will support the long-term monitoring and support of CCS facilities;
- A certificate of project completion process, available 50 years after injection, or an alternative time period approved by the state Environmental Quality Board, transferring title of the stored carbon dioxide to the state;
- Requirements that operators maintain seismic monitoring systems;
- Authorization for the state Environmental Quality Board to promulgate regulations, with directions to consider public health and environmental justice;

- Requirements that commercially valuable minerals be isolated from the carbon dioxide plume; and
- Liability protections for operators that are compliant with federal permits and exercising reasonable care.

This law grants considerable discretion to the Environmental Quality Board to develop permitting criteria. Stakeholders will want to follow the regulatory process closely.

Western Governors' Association: Planning for the Future of CCS in the Region

Alongside individual legislative efforts, the Western Governors' Association has made CCS technology a regional priority.

"Decarbonizing the West" is the 2024 chair initiative of Wyoming Gov. Mark Gordon, R-Wyo., and includes the expansion of CCS investment in its priorities for decarbonization efforts in the region. Gordon, the WGA chair, has been joined in the initiative by governors Brad Little, R-Idaho; Jared Polis, D-Colo.; and Tina Kotek, D-Ore.

As part of the initiative, the WGA has articulated the following priorities:

- Recommending that the U.S. Department of Energy commit resources to supporting CCS funding agreements and investing in pilot-scale projects;
- Calling for greater coordination between state and federal agencies in the permitting process, and urging the EPA to establish clear guidelines on how states can achieve primacy, so that state regulators can expedite permitting decisions for local projects;
- Encouraging expansion of the Section 45Q tax credit;
- Advancing a vision for regional collaboration; and
- Proposing that the Department of Energy partner with other federal agencies to establish a universal monitoring, reporting and verification baseline.

Some projections for the future of the CCS industry predict that CCS will develop at scale on a regional basis, with an interconnected network of emissions sources and storage facilities.

With respect to direct air capture especially, regional collaborations — such as the WGA's strategic plan, and last year's memorandum of agreement between Wyoming and Colorado — may help accelerate the development of major CCS infrastructure projects in the West.

As states continue to innovate on CCS policy, it will be important for project proponents and investors to stay up-to-date on both common legislative trends and unique state-by-state requirements.

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- [1] More detailed information on state CCS legislation is available on Arnold & Porter's interactive state-by-state CCS Tracker, a collaboration with Columbia Law School's Sabin Center for Climate Change Law: https://cdrlaw.org/ccus-tracker/.
- [2] https://legiscan.com/AK/text/HB50/id/3001948/Alaska-2023-HB50-Enrolled.pdf.
- [3] https://www.arnoldporter.com/en/perspectives/advisories/2023/02/interactive-tracker-for-state-action-on-carbon.
- [4] https://leg.colorado.gov/sites/default/files/2024a_1346_signed.pdf.
- [5] https://www.ilga.gov/legislation/103/SB/10300SB1289enr.htm.
- [6] https://legiscan.com/AL/text/HB327/id/2991694/Alabama-2024-HB327-Enrolled.pdf.
- [7] https://www.legis.state.pa.us/cfdocs/legis/PN/Public/btCheck.cfm?txtType=HTM&sessYr = 2023&sessInd=0&billBody=S&billTyp=B&billNbr=0831&pn=1793.