



# HB25-1165, Geologic Storage Enterprise & Geothermal Resources

## Streamlining Geothermal Development through Clear and Predictable Regulation

The Energy and Carbon Management Commission (ECMC) and Division of Water Resources (DWR) are responsible for regulating geothermal development in Colorado. In support of the State's climate and energy goals, the Department has identified statutory changes that will clarify and streamline our regulatory framework while facilitating responsible development of geothermal resources in Colorado. These recommendations will minimize costs, expedite permitting, reduce risks to industry and the public, and clarify regulatory authority across State agencies.

### Proposed Revisions to Geothermal Regulation

In order to improve the regulation of geothermal development in Colorado, DNR proposes the following statutory revisions:

- Avoid a dual-permitting scenario by eliminating the requirement to obtain a DWR water use permit for deep geothermal operations associated with nontributary groundwater where the initial and subsequent residual uses only make use of the heat.
- Amend the definition of "Deep Geothermal Operation" to allow the use of heat produced with fluids in oil and gas operations in a broader range of circumstances than currently allowed.
- Give the Board of Examiners of Water Well Construction and Pump Installation Contractors licensing and enforcement authority over closed-loop geothermal systems. This will allow the Board to protect the public health and groundwater resources by licensing geothermal loop drillers, and having oversight over the construction, sealing, and abandonment of closed-loop systems, including installation standards and periodic inspections.
- Clarify that ECMC has authority over deep geothermal operations that do not utilize designated groundwater within the boundaries of Designated Basins.
- Clarify ECMC's authority to enforce the Deep Geothermal Rules.

### Background

SB23-285 directed ECMC and DWR to evaluate the State regulatory structure for geothermal resources and whether changes to law or regulations are necessary. ECMC and DWR conducted extensive stakeholding through 2024 and will be releasing the final report in December. The Department's proposed statutory changes are informed by that study.

In August, the ECMC Commission unanimously adopted regulations governing deep geothermal operations. The rules offer a path to develop Colorado's geothermal resources and incorporate ECMC's expertise and experience regulating both surface and subsurface energy development activity to be protective of public health, safety, and welfare, including the environment and wildlife resources.

In July, ECMC completed a study of Colorado's geothermal resources: [Geothermal in Colorado: Resources, Use Strategies, and Impact Considerations](#). That report provides a comprehensive review of Colorado's geothermal history, assesses our geothermal resources, analyzes the market for geothermal development in the state, and evaluates regulatory considerations.

### Questions?

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Representative Paschal & Soper, Senator Simpson & Kipp



## Protecting Colorado and Enabling Effective Carbon Sequestration

The Colorado Carbon Management Roadmap, ECMC's Carbon Capture and Storage (CCS) study, and Colorado's Carbon Capture Sequestration and Utilization (CCUS) Task Force all called for the State to create a process for long-term stewardship of CO<sub>2</sub> storage sites. DNR proposes to establish an enterprise to address long-term stewardship of CCS sites after they have been successfully closed. This approach protects Colorado communities from future impacts from storage facilities, ensures our state's climate goals are met, relieves state taxpayers of a burden to manage these sites, and provides certainty to operators. The enterprise will be funded by a fee on geologic storage operators to provide the necessary resources to conduct long term monitoring and stewardship activities. This approach complements ECMC's proposed Class VI regulations and aligns with similar strategies adopted in other states, including Illinois, Pennsylvania, Indiana, Wyoming, Louisiana, Montana, and North Dakota.

## Carbon Sequestration Enterprise

DNR proposes to create a state enterprise with the following responsibilities:

- Assume State ownership of CO<sub>2</sub> after site closure under the following conditions:
  - Operator is in compliance with all applicable laws governing the facility.
  - Operator has contributed required injection fees into the enterprise and enterprise has sufficient funds to accept the transfer.
  - No outstanding legal or environmental issues that could affect the State's ability to assume the transfer.
  - Completion of public notification and comment period.
  - Commission can reimpose regulatory liability and financial assurance if operator makes a misrepresentation to Commission.
- Collect fees from operators to fund long-term monitoring and site stewardship, cover costs of any necessary remediation, and support the enterprise.
- Use fee revenue to plug and reclaim orphaned Class VI facilities in coordination with ECMC's use of forfeited financial assurance.
- Governed by five member Enterprise Board made up of ECMC Chair, ECMC Director, an individual with experience in environmental protection or public health, an individual with expertise in carbon storage, and an individual with expertise in well monitoring, long-term stewardship, or other relevant technical fields.

## Class VI Regulations

SB23-016 gave the ECMC authority to pursue primacy over Class VI wells. ECMC adopted regulations in December that will form the basis for the State's primacy application which will be submitted in early 2025.

Statute requires ECMC conduct a rigorous cumulative impacts analysis for any Class VI project being considered within a DI community and not approve any project that will have a net-negative cumulative impact on the community.

Under ECMC's regulations, operators will have to meet the following conditions to achieve site closure prior to any facility being transferred to the proposed enterprise:

- Injection operations have ceased, and all reclamation requirements have been met.
- All wells properly plugged, and demonstrated to retain mechanical integrity.
- Operator has completed all site closure requirements, demonstrating the CO<sub>2</sub> plume is stable and doesn't pose a risk to USDWs.
- If the operator cannot complete all site closure requirements, the operator will maintain ownership, regulatory liability, and responsibility for stewardship.

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