



# UPDATE ON FEDERAL AND WYOMING CARBON CAPTURE, UTILIZATION, AND STORAGE LAW & POLICY

Andrew C. Emrich

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# WHAT IS CCUS?

- **Carbon Capture**

- Pre- or post-combustion capture of CO<sub>2</sub> from air emissions at stationary source.

- **Utilization**

- Industrial or commercial use.

- **Storage**

- Geologic Sequestration

- CO<sub>2</sub> is compressed into a supercritical state and then injected deep underground into a suitable formation for permanent storage.

- Enhanced Oil Recovery

- CO<sub>2</sub> is injected underground into a mature oil or gas field to stimulate hydrocarbon production.
- As EOR operations continue, more CO<sub>2</sub> is subsequently stored.
- Once production concludes, the remaining CO<sub>2</sub> can be permanently stored.



# KEY LEGAL ISSUES

- **State statutory & common law**
  - Who owns the pore space?
  - Ability to unitize pore space for CO<sub>2</sub> storage?
  - Long-term liability of injector?
  - Impact on other land uses (e.g., mineral development)?
- **Federal land use: transportation & storage of CO<sub>2</sub>**
  - What statutory/regulatory regime?
  - Term of use & fee for injection?
  - Can federal lands be unitized with non-federal lands?
  - Scope of environmental review?
- **Regulation of CO<sub>2</sub> injection & storage**
  - Who regulates the injection/storage of CO<sub>2</sub>?
  - Under what terms?
  - Scope of SDWA authority?

# INCENTIVES FOR CCUS



Policy goals &  
Regulatory  
Incentives



Financial  
Incentives



Environmental/  
Pragmatic  
Considerations

# CCUS IS KEY TO FEDERAL POLICY INITIATIVES

- CEQ Issues CCUS guidance: 87 Fed. Reg. 8808 (Feb. 16, 2022)
  - “To reach President’s ambitious climate goal of net-zero emissions economy-wide by 2050, **the United States will likely have to capture, transport, and permanently sequester significant quantities of carbon dioxide.**” *Id.* 8809
  - “The Administration recognizes the imperative for CCUS actions to be considered **in a timely manner** and **in the context of a strong regulatory regime** that includes early consultation with Tribal Nations and meaningful engagement with communities, stakeholders, and other sovereigns.” *Id.*



# FINANCIAL INCENTIVES

- **45Q Tax Credit (recently increased in IRA)**
  - Up to \$85 per ton of CO<sub>2</sub> for geological sequestration.
  - Up to \$60 per ton of CO<sub>2</sub> for EOR.
- **California Low-Carbon Fuels Standard**
  - Credits in September 2022 trading between \$67 to \$194 per ton.
- **Department of Energy Grants**
  - \$2.5 billion for large-scale carbon sequestration projects.
  - \$3.5 billion for carbon capture demonstration and large-scale pilot projects.
  - \$3.5 billion for regional direct air capture hubs.
- **Carbon Dioxide Transportation Infrastructure Finance and Innovation (“CIFIA”) program**
  - \$2.1 Billion in low-interest loans (to cover up to 80% of project costs) for large CO<sub>2</sub> pipelines.



# OFFSETTING EMISSIONS FROM FEDERAL MINERAL DEVELOPMENT

- **2020 BLM Specialist Report on Annual GHG Emissions & Climate Trends**
  - Quantified global, national & state GHG emissions
  - Estimated GHG emissions from BLM fossil fuel authorizations nationally & by state
  - Compared federal fossil fuel GHG emissions with “carbon budgets”
- *“In addition to controlling or preventing emissions, strategies to offset emissions could be utilized to align BLM decisionmaking with the goal of achieving net-zero emissions by 2050.”* BLM Specialist Report, § 10.2
- Geologic CO<sub>2</sub> sequestration on federal lands = offset federal fossil fuel emissions



# LEGAL/POLICY UPDATES

- BLM's CCUS Instruction Memorandum (June 2022)
- WY Statutory Revisions (effective July 2023)
- WY DEQ Safe Drinking Water Act Class VI UIC Regulations (finalized in 2020)

# BLM'S INSTRUCTION MEMORANDUM

- IM 2022-041 issued June 8, 2022

“National Policy for the Right-of Way Authorization Necessary for Site Characterization, Capture, Transportation, Injection, and Permanent Geologic Sequestration of Carbon Dioxide in Connection with Carbon Sequestration Projects”



# HIGHLIGHTS OF IM 2022-041

- BLM “should issue ROWs under title V of FLPMA,” 43 U.S.C. § 1761 *et seq.*
- Where split estate, determine who owns pore space
- Long-term sequestration: minimum 30-year renewable term
- Stips to avoid interference with MLA operations
- Typically require approved plan of development in addition to SF-299 application
- BLM will determine injection/use fee for federal pore space

# FLPMA TITLE V- 43 U.S.C. §§ 1761-71

- Under 43 U.S.C. § 1761(a), BLM **and** USFS authorized to grant ROWs “over, under, or through [BLM & USFS] lands for”—
  - (2) certain pipelines/other systems of conveyance “and for storage and terminal facilities in connection therewith”
  - (7) “other necessary transportation or other systems or facilities which are in the public interest”
- ROW= “easement, lease, permit, or license to occupy, use, or traverse public lands”- 43 U.S.C. § 1702(f)
- Both agencies have detailed regs.
  - BLM- 43 C.F.R. Part 2800
  - USFS- 36 C.F.R. §§ 251.50 to 251.65 (special uses)

# OUTSTANDING ISSUES FOR CO<sub>2</sub> SEQUESTRATION ON FEDERAL LANDS

- IM 2022-041 currently only applies to FLPMA ROWs on BLM lands
  - Will USFS issue similar guidance?
- BLM to establish injection fee/pore space rental
- What level of NEPA review?
  - Surface facilities & pore space vs. pore space only
  - Size of federal acreage vs. overall project
- Unitization of federal lands with non-federal lands?
- Coordination of federal ROW with Class VI permit
- Long-term liability for CO<sub>2</sub> storage

# WY LAW ON CO<sub>2</sub> SEQUESTRATION: STATUTORY BACKGROUND

- **WY legislature clarified pore space is owned by surface owner (2008)- WSA § 34-1-152(a)**
  - Conveyance of surface estate includes pore space unless previously severed/explicitly excluded
  - “pore space” = “subsurface space which can be used as storage space for carbon dioxide or other substances”. § 34-1-152(d)
- **Ownership/liability- § 34-1-153**
  - Injected CO<sub>2</sub> presumed to be owned by injector
  - Owner of pore space not liable effects of injecting CO<sub>2</sub> simply by consenting to injection by another
- **Authorized OGCC to unitize pore space- § 30-5-104**
- **Directed DEQ/WQD Administrator to develop rules for geologic sequestration- § 35-11-313**



## ■ **WYOMING STATUTORY REVISIONS** (effective July 1, 2023)

- Injector has title & liability for injected/stored CO<sub>2</sub> underground (or within unit area) until DEQ issues “certificate of project completion”- § 35-11-318(b)
- DEQ may issue certificate of project completion 20 years after CO<sub>2</sub> injections end- § 35-11-319
- After certificate issued, CO<sub>2</sub> title & liability pass to State of WY
- WY’s liability limited to balance of geologic sequestration special revenue account

# WY DEQ CLASS VI REGULATIONS

- Under the SDWA (42 U.S.C. § 1421) states are allowed to develop their own Underground Injection Control (UIC) regulatory programs
  - EPA created new class of injection wells for CO<sub>2</sub> (Class VI) and created federal regulations & minimum standards for state programs- 75 Fed. Reg. 77230 *et seq.* (Dec. 10, 2010)
  - WY DEQ promulgated Class VI UIC rules in 2020 (Envtl. Quality, Ch. 24)
- EPA approved WY DEQ's Class VI regulations- March 31, 2020
- WY one of two states (along with ND) with approved Class VI UIC program. (LA's application under review by EPA)

# DEQ'S CLASS VI RULE: HIGHLIGHTS

- Class permits issued for life of facility
- Separate permit required for each CO<sub>2</sub> injection well
- Wells must be sited in areas with suitable geologic system
  - Injection zone= sufficient areal extent, thickness, porosity & permeability to receive total anticipated volume of CO<sub>2</sub> stream
  - Confining zones= free of faults/fractures. Extent & integrity to contain CO<sub>2</sub> stream
- Develop testing & monitoring and corrective action plans to prevent movement of CO<sub>2</sub> into underground source of drinking water (USDW)
- Prepare post-injection site care & closure plan
- Establish financial responsibility for all phases of project



# PUBLIC PARTICIPATION

- DEQ/LQD Administrator gives public notice once draft permit is prepared
- 60-day public comment period on draft Class VI permit
- Hearing before LQD Administrator:
  - Mandatory if significant degree of public interest in draft permit
  - Optional if hearing may clarify issues involved in permit decision
- DEQ Director issues final decision on draft permit
  - If no hearing, within 60 days following public comment period
  - If hearing, “as soon as practicable” after receipt of hearing transcript or after expiration of time to receive comments

# THANK YOU!



ANDREW EMRICH

Partner

[acemrich@hollandhart.com](mailto:acemrich@hollandhart.com)