

The Regulation of Carbon Capture and Storage (CCS)

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The Energy Resources Conservation Board

- Primary regulator for upstream oil and gas business in Alberta.
- 900+ employees covering technical areas such as law, economics, geology, geochem., science and various types of engineering.
- Considers public safety, environmental protection and resource conservation (efficient use of resource) in all decisions and regulations.
- Main functions are: regulation, data and quasi judicial hearings.



ERCB Position on CCS

- **Technical differentiation between Enhanced Oil Recovery (EOR), Storage and Sequestration**
- **Sequestration considered permanent disposal of CO₂**
- **CO₂ defined based on its chemical characteristics as an acid gas**
- **ERCB has an existing regulatory framework in place to manage CO₂ disposal/sequestration**



Regulatory Components in Jurisdiction

- Pipeline transport (Directive 41 and Canadian Standards Council Z662)
- Infrastructure Licensing (Directive 56)
- Drilling and Completion of Injectors (Directive 51)
- Reservoir (Directive 65)
- Operation
- Abandonment and Closure (Directive 20)
- Financial Liability (Directive 11)



Recent ERCB Activities related CCS

- **2007 Alberta Energy and Utilities Board (EUB) high-level technical review of CO2 EOR and sequestration applications process.**
- **Meeting with other government agencies and departments to ensure a comprehensive framework.**
- **ERCB internal review of existing ERCB CO2 regulatory framework: 3 components**
 1. **Analysis of regulatory aspects of CO2 sequestration life cycle**
 2. **Determination of jurisdictional grey areas**
 3. **Step-by-step guide to processing a CO2 sequestration application through the ERCB**



ERCB Analysis

- **ERCB has a process to manage CCS applications.**
- **ERCB existing application process is a mix of specific regulatory requirements and unique approval conditions.**
- **Existing operational requirements for acid gas injection wells remain the focus of the ERCB operational regulations for CCS projects.**
- **Some form of subsurface monitoring requirements are placed on CO₂ projects during their operational and post closure phases.**



ERCB Evaluation of Projects

- **ERCB considers public safety, environmental protection and resource conservation in project proposals.**
- **The ERCB will look to and apply government policy in regulatory decisions.**
- **Proponents proposing injection of CO₂ for sequestration into oil or gas reservoirs should pay particular attention to the conservation mandate of the ERCB.**



ERCB Future Developments Related to CO2 Sequestration

- The ERCB expects to produce a public document that will set out the specific ERCB regulatory requirements involved in a CO2 Sequestration applications - Winter 2008/2009
- The Alberta Geological Survey (an agency within the ERCB) is considering conducting a high level survey on potential subsurface sequestration locations.

