

**camco**

# **CCS in the West: Addressing the Regulatory Challenges to Carbon Capture and Sequestration**

**Big Sky Carbon Sequestration  
Partnership Legal and  
Regulatory Issues Meeting**

**Denver, CO**

**September 1, 2009**

# About Camco

## Camco's business is "solutions to climate change"

- Assets – origination, qualification and delivery of carbon credits class
- Consultancy – policy, consulting, carbon management and assessment
- Ventures – technologies, new products, fund management

## Portfolio of carbon credits

- 156 million tonnes under management
- Projects from the Kyoto Protocol's Clean Development Mechanism (CDM) and Joint Implementation (JI), and in the voluntary markets (VER)
- Voted "Best Project Developer" by our peers 2007, 2008, and 2009

## Leading fully integrated global climate change business

- over 260 staff
- operating out of 18 offices
- across 12 countries – Austria, Bulgaria, China, Indonesia, Kenya, Malaysia, Russia, South Africa, Tanzania, UK, US, Vietnam

# UK Strategic Programme Fund Grant

- *Goal:* to help move forward efforts to create policies that would support the commercialization of CCS
- *Scope of Area:* Colorado, Utah, Wyoming, and Montana
- *Activities:*
  - Stakeholder Meetings:
    - Fall 2008: Colorado, Montana, and Utah
    - Spring 2009: Regional meeting for WY, UT, CO, and MT in Denver
  - Supporting Research:
    - Covering major regulatory hurdles
  - Web Portal:
    - [ccsinthewest.net](http://ccsinthewest.net)
    - Contains supporting research, summaries of fall stakeholder meetings, and matrix of all legal/regulatory CCS papers



Fall 2008 Denver Meeting



Spring 2009 Denver Meeting

# Regulatory CCS Initiatives

- ***Pore Space Ownership:*** MT, ND, WV, and WY
- ***Ownership of Injected CO<sub>2</sub>:*** LA, MT, ND, WY, TX, and OK
- ***CO<sub>2</sub> Pipelines:*** MT
- ***Liability:***
  - TX (fund), LA (fund for monitoring)
  - KS, MT, ND, - state assumes liability
  - EPA proposal
- ***Incentives/cost recovery/mandates:*** CA, CO, IL, KY, LA, MA, MN, MS, MT, ND, NM, NV, NY, OK, PN, TX, UT, WY
- ***Permitting:*** KS, LA, MA, MT, OK, TX, UT, WA, WV, WY

\* See “CCS Reg” at [ccsreg.org](http://ccsreg.org) for full listing of legislative activity

# Different Approaches to Legislation

- **Some states allow for severance pore space ownership from surface rights**

Ex. WV, WY, MT

ND (leasing allowed but severance is not)

- **Boards overseeing regulation differ**

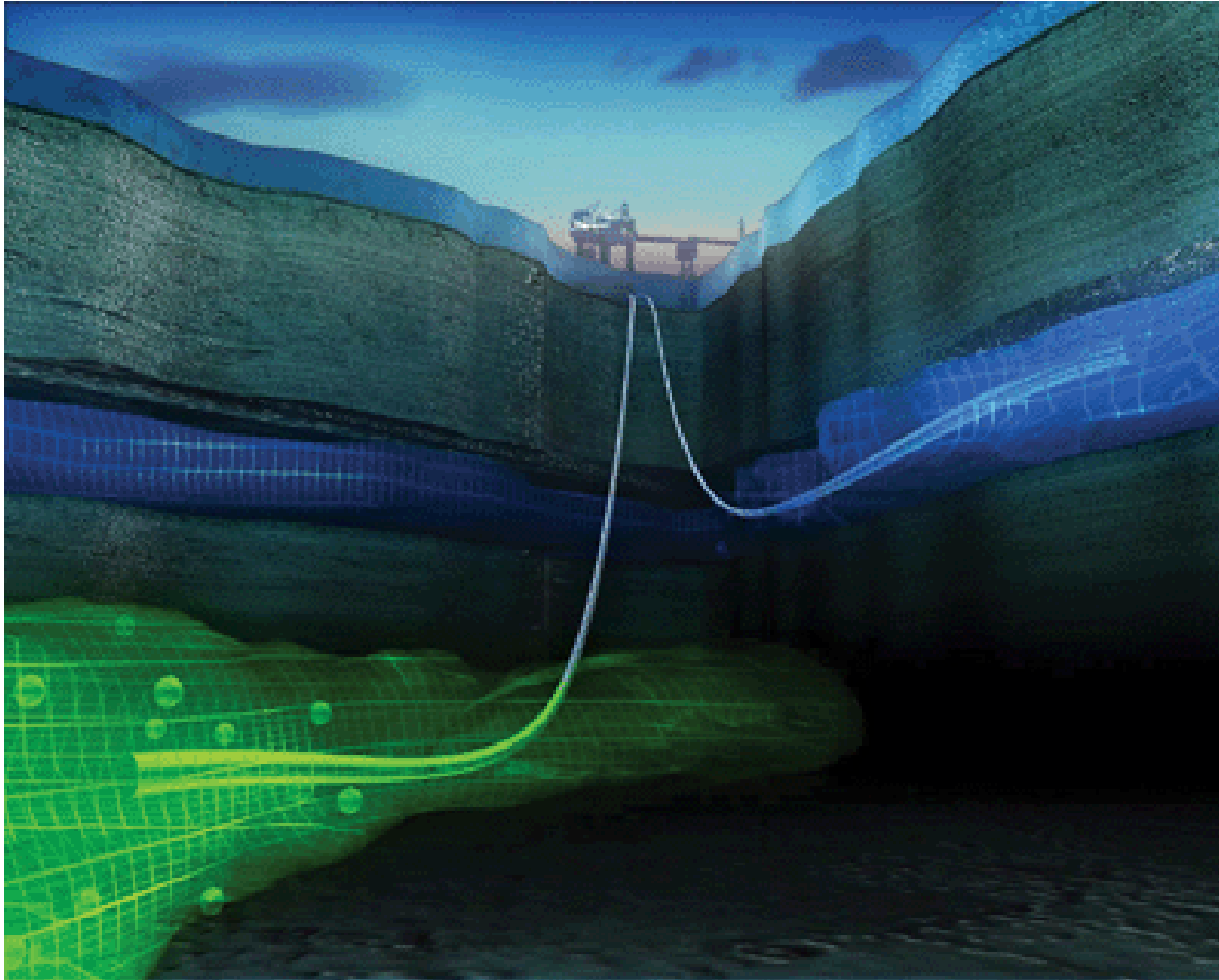
Ex. LA – Conservation Commission

MT - Board of Oil and Gas with comments from the Dept of Environmental Quality

WV – Dept of Environmental Protection

ND – Oil and Gas Division of the Industrial Commission

# Questions



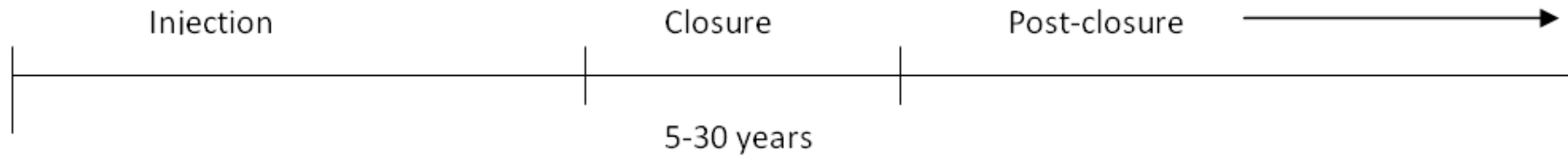
# Property Law

- Who should own CO2 storage spaces?
  - Surface land owner, mineral rights owner, water rights owner, state/federal government
    - American Rule – surface rights owner owns pore space after mineral extracted
    - English Rule – mineral rights owner owns pore space after mineral has been extracted
      - Canada, Europe, and case law in Alabama, California, Illinois, Indiana, Kentucky, Louisiana, New York, Ohio, and Oklahoma supports
- What if pore space ownership varies across borders and reservoirs extend across borders?
- What should be done about mineral interests that conflict with CO2 storage?
- Should unitization or pooling be used for large reservoirs with multiple pore space owners? Voluntary or forced?
- How will pore space owners be compensated if plumes spread beyond predictions?
  - One person's injection diminishes another's ability to inject

# CO2 Pipelines and Storage

- Should the states enact legislation granting private entities eminent domain authority for CO2 pipelines and infrastructure?
- Should the developers of CO2 pipeline and storage infrastructure be treated as common carriers (similar to oil and existing CO2 pipelines) or public utility facilities (similar to gas distribution pipelines or electric transmission lines)?
- Should there be state, regional, or federal planning for CO2 infrastructure? Who will be the appropriate bodies to handle this task?
- Would there be an advantage to having consistency in CO2 infrastructure laws across state boundaries?

# Liability



- Should the state decide who is liable for damages or accidental release of CO<sub>2</sub> from CCS, or should it be up to individual contracts and parties to decide?
- Should the pore space owner, the state, federal government, generator of CO<sub>2</sub>, or CCS operator be liable in the long term?
- If a federal scheme for liability is best, how should a coordinated effort be put forward to lobby for this?
- What type of liability scheme in the short and long-terms is appropriate?
  - *Private insurance with liability cap*
  - *Compensation fund*
  - *Liability exemption*
  - *Federal assumption of liability*