

CCS Legal & Regulatory Issues: Getting to the Details

Launch of International CCS Regulators' Network

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CO₂ Storage Experience is Limited



Only 4 operational full-scale projects; none involves capture from coal-fired power plants

Results of this Lack of Experience

- **Regulators lack data on**
 - ◆ Capture reliability
 - ◆ CO₂ retention
 - ◆ Cost/capacities needed for CO₂ transport
- **Regulators benefit from sharing approaches**
 - ◆ Site selection models/technologies
 - ◆ Monitoring and verification technologies and practices
 - ◆ Permitting requirements
- **Public awareness/acceptance is low**

How to Finance CCS?

- **Public/private funding targeted at early projects**
 - ◆ Creation of funds
 - ◆ Competitions
- **Enact CCS/GHG mandates**
 - ◆ Emissions performance standards
 - ◆ Best available technology
- **Include in GHG emissions trading schemes**
 - ◆ Special treatment for CCS?
- **Combine the two: significant funding for early projects with CCS/GHG mandates**

Permitting CO₂ Transport Pipelines

- **Siting**
 - ◆ Eminent domain
 - ◆ Public lands
- **Health & safety standards**
 - ◆ Many lessons from existing pipeline regulation
- **Pipeline access**
 - ◆ Common carrier model
 - ◆ Role of government
- **Pipeline financing**

Permitting CO₂ Storage

- **Property rights/access**
 - ◆ Surface vs. sub-surface rights
 - ◆ National lands issues
 - ◆ Third-party access
- **Site selection criteria**
 - ◆ Characterise CO₂ stream
 - ◆ Characterise geological formation
 - ◆ Determine potential impacts via modelling
- **Environmental permitting, risk management**
 - ◆ Establish mitigation plan
 - ◆ Monitor compliance

Long-term Liability Frameworks

- **Liability – who is responsible?**
 - ◆ Government will likely need to take responsibility
- **When does transfer of liability occur?**
 - ◆ Performance-based criteria needed
- **How to manage local, global risks?**
 - ◆ Creation of insurance funds, contract terms
- **The path forward**
 - ◆ Will need to be sorted out in parallel with early demonstrations
 - ◆ Models exist from other industries

Other Key Elements

- **Establishing jurisdiction early**
 - ◆ Will likely need top-down guidance
- **Intellectual property issues**
 - ◆ Similar to other oil & gas technologies
- **Adaptive Regulation - develop regulatory models for early projects and adapt as knowledge is gained**
- **Amending existing oil & gas regulations for early projects**

CCS Regulators' Network Launch Meeting Agenda

- **Day One: Global Status Overview**
 - ◆ Scene-setting panels
 - ◆ Country/regional overviews
 - ◆ Discussion
- **Day Two: Legal Issues**
 - ◆ CCS financing/integration with GHG schemes
 - ◆ Property rights for CO₂ storage
 - ◆ CO₂ transport issues
 - ◆ Long-term liability
- **End of Day Two: next steps/feedback**