



# Carbon Capture & Storage: Legal and Regulatory Issues

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## Legal & Regulatory Issues

- Property rights for transport and storage
- Environmental permitting, risk management
  - ◆ Onshore and offshore
- Pipeline access, health & safety regulations
- Long-term liability frameworks
- Jurisdictional issues
- Need to develop regulatory models for early projects and adapt as knowledge is gained

*All of these issues impact financing/cost*

# Current Developments

- **EU “Enabling” Framework**
  - ◆ **Member States determine whether and where CCS will happen**
  - ◆ **Companies decide whether to use CCS on the basis of conditions in the carbon market**
  - ◆ **Permitting for CO<sub>2</sub> storage**
    - **Monitoring and reporting guidelines under EU-ETS in order to quantify any leaked emissions (proposal expected end 2008)**
  - ◆ **ETS auctioning revenues major potential source of funding for CCS demonstration**
  - ◆ **Transfer of responsibility to the state under clear conditions to avoid distortion of competition**

## Current Developments Cont'd.

### ● USA

#### ◆ Jurisdictional issues:

- Capture - US EPA's Clean Air Act
- Transport - US Department of Transportation
- Storage - US EPA's Safe Drinking Water Act
  - ◆ State/federal split of responsibility
  - ◆ *Proposed rule for CO<sub>2</sub> published by summer 2008, final 2010*

#### ◆ Legislation likely needed

- Treatment under the Clean Air Act
- Accounting for Injection and Any Leakage
- Long-term Liability

## Current Developments Cont'd.

### ● Australia

- ◆ Will build from Offshore Petroleum Act platform
- ◆ Acreage release, property access
  - Oil & gas and CO<sub>2</sub> storage activities will overlap
- ◆ Legislation will provide the regulator with broad powers to direct the project to take mitigation and remedial actions

### ● Canada

- ◆ Lack of financing for demonstration projects
- ◆ New federal GHG regs will require CCS at new oil sands and coal-fired electricity plants by 2018
- ◆ Liability for storage sites
  - Need to clarify, likely provincial (GHG fed'l)
- ◆ Need to establish M&V standards

## Current Developments Cont'd.

- **Japan - Adopted legislation implementing London Protocol amendment**
  - ◆ **Min. of Environment will issue permits**
    - **Site selection report**
    - **Environmental impact assessment report**
    - **Explanation for no appropriate disposal is available other than sub-seabed storage**
    - **Financial capability of the applicant**
    - **Technical capability of the applicant**
    - **Project lifetime document**
  - ◆ **CO<sub>2</sub> purity requirement :  $\geq 99\%$**

## Current Developments Cont'd.

- **London Protocol/OSPAR 2007 Amendments on CCS: CO<sub>2</sub> now may be dumped at sea, but:**
  - ◆ Disposal must be into a sub-seabed geological formation
  - ◆ Disposed matter must be “overwhelmingly” CO<sub>2</sub>
  - ◆ No wastes or other matter may be added
  - ◆ Disposal must be permitted by national authority
- **UNFCCC – including CCS in the CDM**
  - ◆ May 2006 Workshop highlighted following issues
    - Project boundary concerns
    - Accounting for leakage resulting from the additional energy required
    - Ensuring the permanence of stored CO<sub>2</sub>
  - ◆ Series of workshops/consultations; next submissions 6/08
  - ◆ Path forward: a simplified CCS project method



# IEA Secretariat CCS Work

- High-level recommendations for G8
- Legal & regulatory frameworks
  - ◆ *Legal Aspects of CO<sub>2</sub> Storage* publications
  - ◆ 13-14 May 2008: International CCS Regulators' Network launched
    - Future web conferences on specific topics
      - ◆ 10 July: CO<sub>2</sub> transportation health & safety issues
    - Global updates on regulatory/legal developments
    - Outreach to developing regions
    - Annual meeting
  - ◆ October 2008: new CCS publication
    - CCS/GHG market mechanisms analysis
  - ◆ March 2009: high-level CCS Summit





**Thank You**

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