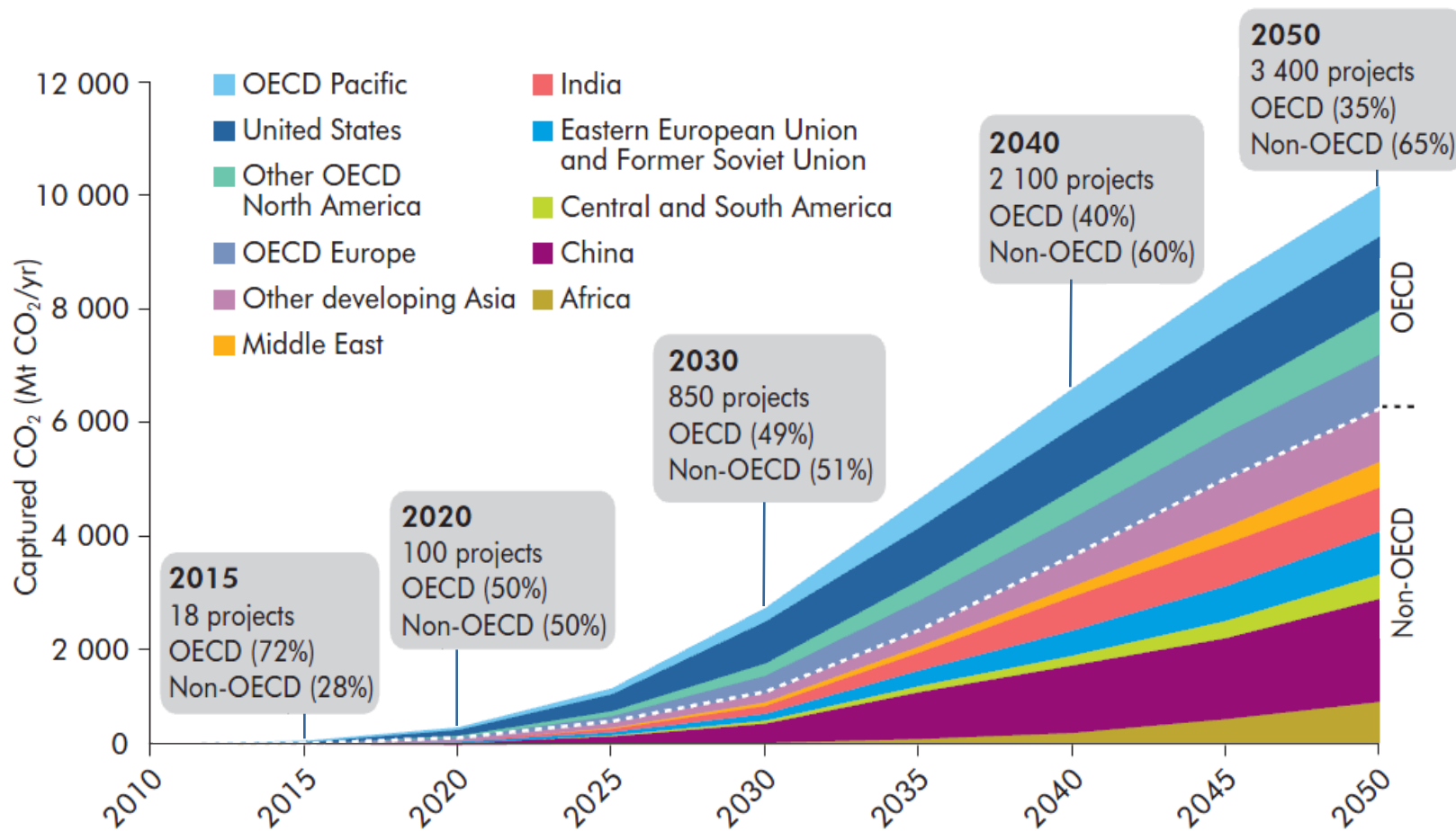


Recent International Legal and Regulatory Developments in CCS

IEA-SENER Joint Workshop
CCS in Mexico: Policy Strategy Options for CCS
Mexico City, 7-8 March 2012

Sean McCoy
CCS Unit, International Energy Agency

The IEA CCS Roadmap sets an ambitious growth path



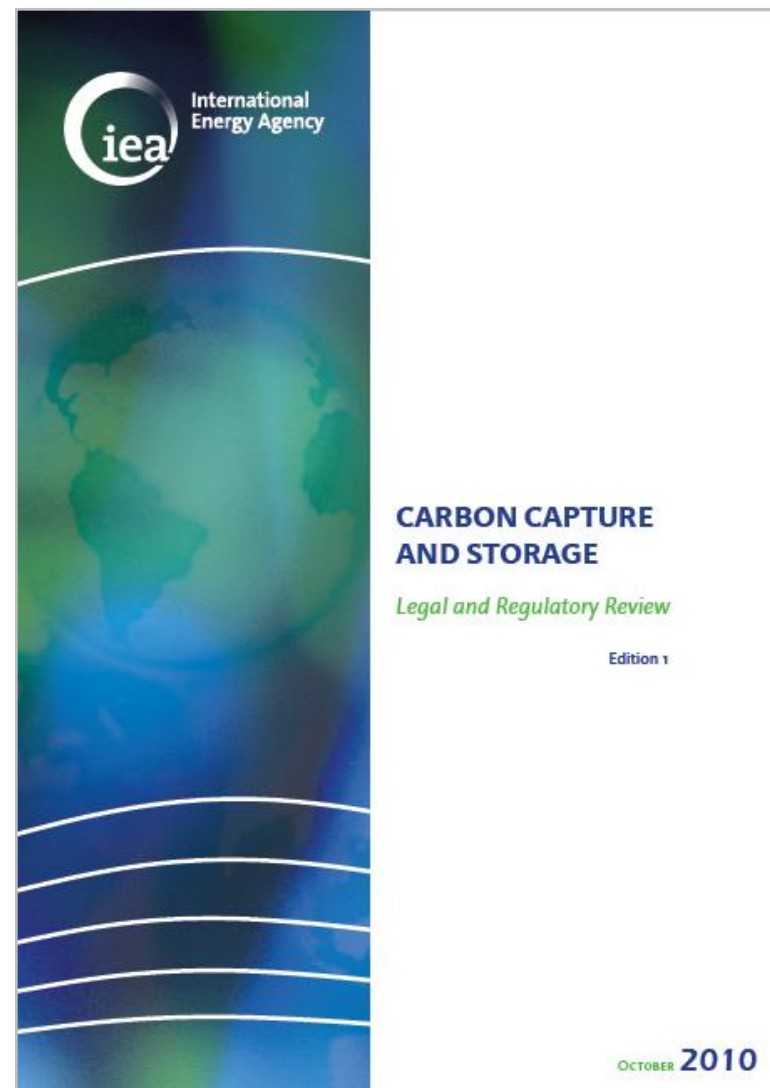
Source: IEA CCS Roadmap, 2009

Three Key Legal & Regulatory Milestones to Achieve the CCS Roadmap Goals

1. Existing legal and regulatory frameworks should be reviewed and adapted for CCS demonstration by 2011 in OECD countries and by 2015 in all countries
2. All countries should have a legal and regulatory framework suitable for large-scale CCS deployment by 2020
3. International legal issues need to be resolved by 2012

CCS Legal and Regulatory Review

- Analyses global CCS regulatory progress
- Released every 6 months
- Contributions by national and regional governments and international organisations
- Overview of recent and expected developments
- IEA analysis of key advances and trends



Highlights from the 2nd Edition: May 2011

- Reports from 29 governments and 9 international organizations
- Theme for the 2nd edition: long-term liability for stored CO₂
- Significant developments in five areas:
 - Transposition of EU Directive on Geologic Storage
 - Inclusion of CCS in the Clean Development Mechanism
 - International marine treaty developments
 - Process for developing CCS regulatory frameworks

Transposition of EU Directive on Geologic Storage

- June 25, 2011 deadline for notification of transposition of the Directive spurred considerable progress
- 12 of 27 EU member states formally communicated full or partial transposition measures to the Commission by deadline
- The Commission launched 26 “non-communication” infringement proceedings as a result; 7 have since been closed
- These are ongoing and all instruments are being checked for conformity to the Directive

CCS in the Clean Development Mechanism

Recent History

- **November 2010:** Decision at COP-16 (Cancun, Mexico) that CCS is eligible under the CDM, *subject to resolution of certain specified issues*
- **August 2011:** Synthesis report of submissions from Parties released by the UNFCCC Secretariat
- **September 2011:** Technical workshop on modalities and procedures for geologic storage held in Abu Dhabi

Recent History

- **November 2011:** Modalities and procedures adopted at COP-17 (Durban, South Africa)

Next steps

- Assess eligibility of trans-boundary projects and establish a global CER reserve

Developments in International Marine Treaties

London Protocol: 2009 Article 6 Amendment

- Amendment to enable cross-border transportation of CO₂
- Ratification required by 27 of 40 Contracting Parties
- Only Norway has ratified to date; Dutch ratification pending
- Only 17 additional Parties with substantial interest in CCS
- Constraint on offshore storage cooperation

OSPAR

- 2007 amendment to enable sub-seabed CO₂ injection
- Ratification by 7 Parties required; 7 ratifications received in 2011
- Entered into force in 2011

Practical Considerations to Develop CCS Regulatory Frameworks

- Timing of regulatory development: **develop CCS-specific regulation first; demonstrate CCS first; or develop and demonstrate in parallel?**
- How can coordination be achieved within government?
- Where are the regulatory gaps and barriers to CCS?
- Is regulation is fit for purpose?

What Do We Mean by “Long-term Liability”?

- “Liability” generic term for
 - General law liabilities (*e.g.* under civil law, for damage to the environment, human health or third party property)
 - Monitoring and corrective actions or remediation measures
 - “Global” (climate) liability
- “Long-term liability”: liabilities arising after
 - Permanent cessation of injection and completions of active monitoring
- CCS aims to be permanent: implications for liabilities associated with a storage site

Traditional Focus on the Question of Transfer

- Liability transfer or indefinite operator responsibility?
- Trend towards liability transfer
 - European Union follows this approach, along with Australia and some Australian, Canadian and US states and provinces
- No outright consensus in existing CCS frameworks and other options exist

Beyond Transfer: The Devil is in the Details

- Much to consider beyond preliminary question of transfer
- Generally three requirements imposed:
 1. No significant risk of physical leakage or seepage of stored CO₂
 2. Minimum time period elapsed
 3. Financial contribution to long-term stewardship
- Marked differences in approach between jurisdictions

Highlights from the 3rd Edition: forthcoming

- Reports from 29 governments and 8 international organizations
- Theme for the 3rd edition: public engagement in CO₂ storage projects
- Ongoing developments at a national, regional and international level, including:
 - Clean Energy Ministerial Carbon Capture, Storage and Use Action Group
 - CCS incentive policy: how can governments drive deployment?
 - The devil's in the detail: in-depth regulatory issues under consideration in more advanced jurisdictions
 - CO₂-EOR and CCS: the challenge for regulators

Public engagement in CO₂ storage projects

■ What role for government and regulation?

- Public policy, policy level debate
- Regulation: a key tool for public engagement?
- Public perception and framework development: not **under** my back yard (or jurisdiction, for that matter)
- Engagement in law-making processes

■ How do current regulatory approaches match up with “best-practice” principles and lessons learnt?

■ Current trends in regulation

■ What jurisdictions can do to extend efforts

Countries	Permitting processes allowing exploration for, access to and use of pore space for geologic storage	Frameworks for managing project-period and long-term liability associated with storage operations	MRV requirements	General comments
Australia	✓	✓	✓	
Queensland	✓	✓	✓	
South Australia	✓	✓	✓	MRV requirements are not explicitly mentioned in South Australia's framework, but under section 34(4) Petroleum and Geothermal Energy Act 2000, a gas storage license authorizes storage subject to its terms, which may include MRV.
Victoria	✓	✓	✓	
Canada	X	X	X	Regulatory competence for CCS in Canada is divided between the federal and provincial governments; the provinces are currently leading developments on CCS regulation.
Alberta	✓	✓	✓	
British Columbia	✓	X	X	British Columbia is currently developing its CCS regulatory framework, building on existing oil and gas legislation. MRV and long-term liability have been identified as gaps in the current framework.
European Union	✓	✓	✓	Of the 27 member states at least 12 have partially or fully transposed the directive. At least one member states has opted to ban CCS in their territories (e.g.. Ireland) and political debate is ongoing in others (e.g. Poland, Germany)
Norway	✓	X	✓	Existing CCS projects in Norway are regulated under existing petroleum and pollution-control legislation. Norway is currently drafting new regulations for the storage and transportation of CO ₂ on the Norwegian Continental Shelf. Long-term liability will be addressed as part of this process.
United States	✓	X	✓	Several federal bills addressing long-term liability have been introduced, but none have been passed by Congress. Under the EPA Class VI rule, operators may be released from post-injection site care requirements after 50 years (or at the discretion of the relevant authority), however owners or operators may be liable for harm to underground sources of drinking water in perpetuity since the US federal government has not otherwise acted to limit this liability.

Three Key Legal & Regulatory Milestones to Achieve the CCS Roadmap Goals

1. Existing legal and regulatory frameworks should be reviewed and adapted for CCS demonstration by 2011 in OECD countries and by 2015 in all countries
2. All countries should have a legal and regulatory framework suitable for large-scale CCS deployment by 2020
3. International legal issues need to be resolved by 2012

Thank-you!

Sean McCoy, Ph.D.
International Energy Agency
Energy Analyst, Legal & Regulatory Issues

Telephone: +33 (0)1 40 57 67 07

Email: sean.mccoy@iea.org

Web: www.iea.org/ccs/legal.asp