



Issues and Questions for Discussion in CCS

*Range of Actions Around the
World*

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Framing the Discussion of Legal and Regulatory Issues and Questions in CCS

■ Where were we?

- 2001 – CO2 Capture Project formed. Began surveying governments about any CCS policy and regulations. → *None*
- 2003 – CSLF Chartered
- 2004 – CSLF paper on legal and regulatory considerations
- 2005 – G8 Gleneagles Plan of Action
- 2006-2007 – G8 IEA CSLF Workshops on Near Term Opportunities

■ Where are we now?

- Amendments to the EU ETS Directive, includes CCS
- EU Directive on CCS
- Canada “Cleaner Fuel Standards” based on CCS
- US Congressional legislation – e.g., Lieberman-Warner
- US EPA Underground Injection Control Program CCS regulations

■ Where do we want to be?

2006 G8 IEA CSLF San Francisco Workshop Critical Issues Identified (1)

Category	Issue	Priority
Ownership/liability issues	1) Need to account for liability along the CCS chain	Critical
	2) Retroactive liability	
	3) Insurance for earliest projects	
	4) State aid and its limitations	
Regulatory treatment of CO2	1) Compliance with applicable, existing regulation (if it exists)	Critical
	2) Possibility of CCS regulation under existing regulations	
	3) Tolerance for contaminants	
	4) Definition of CO2 as a waste or commodity (circumstantial)	
Monitoring/remediation issues	1) Need for system to be in place to monitor possible leakages/seepages over time	Critical
	2) Remediation	

2006 G8 IEA CSLF San Francisco Workshop Critical Issues Identified (2)

Category	Issue	Priority
Property rights/IP issues	1) Need for other resources (e.g., mineral) to be protected	Critical
	2) Need for regulation of geophysical trespassing	
	3) How to deal with ownership of resources (e.g., mineral, surface, water)	
	4) Ownership of pore space	
	5) Unitization of CO2 storage to make clear who stakeholders are and what their roles are	
	6) Need to address regulatory status of use and siting of transportation infrastructure	
	7) Intellectual property	
Jurisdictional issues	1) How to deal with competing laws in the case of transboundary issues	Important for national jurisdiction/ critical for some offshore projects
	2) Need to distinguish between national and sub-national jurisdiction for onshore projects versus international law for offshore projects	

2007 Final Report with High-Level Recommendations to G8 Leaders

- The G8 Heads of Government are urged to recognize the critical role of CCS in tackling global climate change and demonstrate the political leadership necessary to act now to initiate widespread deployment of this technology. CCS can achieve substantial reductions in CO₂ in a world faced with increased demand for fossil fuels. With CCS, fossil fuels will become part of the solution, not part of the problem. The IEA has estimated that, in addition to other mitigation options needed to combat climate change, CCS must be installed on the equivalent of over 600 coal-fired power plants by 2030. Expeditious deployment of CCS requires the following immediate actions:
 - Demonstrating CO₂ Capture and Storage ...
 - Taking Concerted International Action ...
 - Addressing the Financial Gap ...
 - Establishing Legal and Regulatory Frameworks ...
 - Raising Public Education & Awareness ...

Local Action Increasing Globally

CANADA

- (1) Emissions intensity data reporting
- (2) Discussions to link EU ETS with CA
- (3) Quebec to adopt California's AB 32 emissions standards.
- (4) Clean Fuel Standard based on CCS by 2018

EU

- (1) ETS entering second Phase with increased reductions
- (2) Significant allowance auction possible.
- (3) EU ETS amendments include CCS
- (4) Directive on CCS

CALIFORNIA

- (1) AB 32 implementation underway; Mandatory reporting of 2008 emissions; CPUC recommended GHG emissions for reductions in power sector.
- (2) LCFS entering rulemaking process
- (3) RPS established

AUSTRALIA

- (1) Ratified Kyoto Protocol in December 2007

New Zealand

- To implement multi-sector cap-trade 2009

UNITED STATES

- (1) US States: Increase in regional action; multi-state emissions registry; Low Carbon Electricity Policies and Renewable Portfolio Standards
- (2) Federal: Climate Change legislation moving through Congress; EPA acting on CO₂; EPA CCS in UIC regulations; GHG Reporting

United Nations

- (1) In December 07, launched two-year negotiating process for follow on to Kyoto Protocol.
- (2) Clean Development Mechanism (CDM) generating project offsets in developing world.



Issues and Questions to Address (Where Do We Want To Be?)

- What are the key elements of a site certification framework? In other words, what does the storage project proponent have to show in order show that a storage site can be certified and selected?
- How can we resolve the ongoing debate over long-term responsibility?
- What, if any, are the appropriate long term financial mechanisms to address long term responsibility issues?
- What, if any, monitoring needs to be done to demonstrate long term performance of CO₂ storage?
- What role, if any, does CSLF have in sharing lessons learned from legal and regulatory developments in CCS, such as a panel discussion like this one?
- What lessons have been learned from recent experiences about how to gain public acceptance for CO₂ capture and geological sequestration projects?
- What legislative and regulatory developments need to occur to encourage the deployment of integrated projects on a significant scale?