Canada Update: CCS Legal and Regulatory Developments

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Outline

1. Brief Context for CCS in Canada
2. Federal – Provincial jurisdictional considerations
3. CCS Legal and Regulatory frameworks – updates
   • Provincial
   • Federal
1. Context for CCS in Canada
For Canada, CCS plays a large part of a least-cost scenario to reduce GHGs by 2050.

Role of CCS in GHG Emissions Reduction Strategy in Canada

Five main objectives for CCS

1. Reduce technology risks
2. Gaining public acceptance
3. Providing stable legal / regulatory frameworks
4. Develop business models / commercial frameworks
5. Learning-by-doing and knowledge sharing to reduce the costs
Support for early-mover demonstrations targets 4 applications

1. **Enhanced Oil Recovery (EOR)**
   - Weyburn-Midale Project (Saskatchewan)

2. **Oil sands upgrading**
   - Shell Quest (Alberta)
   - Enhance Carbon Trunk Line (Alberta)

3. **Shale gas production**
   - Spectra Fort Nelson Project (BC)

4. **Coal-fired electricity**
   - SaskPower Boundary Dam 3 (Saskatchewan)
   - Swan Hills – underground gasification (Alberta)
   - TransAlta Project Pioneer (Alberta) - Cancelled

Up to ~ $6 Billion in public-private investment
2. Federal – Provincial jurisdictional considerations
Jurisdiction is a shared responsibility

- The direct ownership, management and regulation of most natural resources fall under provincial jurisdiction.
- Issues of interprovincial, national or international concern fall under federal jurisdiction.
- Responsibilities for environmental protection are shared between the federal and provincial governments.

**Provincial Jurisdiction**

- Resource ownership, management and royalties
- Land-use planning and allocation
- Laws regarding the exploration, development, conservation and use of natural resources within provincial boundaries

**Federal Jurisdiction**

- International and interprovincial issues
- Uranium/nuclear power
- North, offshore, and Federal lands
- Works declared to be for the general benefit of Canada (e.g. science and technology)
Existing Legal and Regulatory base – CCS Chain

- Environmental Assessments (federal / provincial)
- Environmental Protection Regulation, including air emissions
  - e.g. Federal - proposed GHG Regulations for Coal-Fired Generation
  - e.g. Alberta - Specified Gas Emitters Regulation

Capture / Compression → Transportation → Property Rights → Injection → Post-Injection

Inter-provincial and international pipelines (federal), otherwise provincial

Existing regulations & standards apply (e.g. public safety, environmental, occupational health & safety)

Provincial systems for granting subsurface rights

Provincial - acid gas disposal (Alberta, BC) and EOR (Alberta and Saskatchewan)

Provincial - Alberta’s recent amendments across existing pieces of provincial legislation
3. CCS Legal & Regulatory Framework developments
Provincial government proceeding with legislation/regulations for CCS projects

British Columbia:
- CCS policy and regulatory framework under development

Alberta:
- Carbon Capture and Storage Statutes Amendment Act (December 2010)
- Regulatory Framework Assessment to identify and address any other potential regulatory gaps for CCS

Saskatchewan:
- Amended Oil and Gas Conservation Act to expand and clarify provincial regulatory authority for carbon storage

Nova Scotia:
- Regulatory/legal report for possible deployment of a pilot CCS project
Alberta CCS Regulatory Framework Assessment (March 2011)

Further to 2010 legislative amendments:

- Identify / address any other potential CCS regulatory gaps
- Governed by a Steering Committee
  - Supported by an Expert Panel and 4 Working Groups
  - Engagement of many stakeholders – more than 100
- Following working groups’ review and analysis, recommend framework enhancements, such as:
  - Geological site selection and closure criteria
  - Post-Closure Stewardship Fund inputs
  - Monitoring, Measurement, and Verification (MMV) requirements / guidance
Alberta CCS RFA – Next steps

• Finalize all recommendations for Steering Committee approval (mid-2012)

• Public consultation planned for this June
  • Opportunity to test recommendations
  • Builds on Alberta CCS outreach campaign (Fall 2011)

• RFA Conclusion at end of 2012
  • Final report to be provided to Alberta Energy Minister
BC CCS Regulatory Context

- Released Natural Gas Strategy in February 2012
- One of 6 action items within “Natural Gas Is a Climate Solution” is to promote CCS:
  - Completing development of a regulatory framework
  - Amending legislation, if required
  - Working with the BC Oil and Gas Commission to develop regulations
  - Evaluate potential projects
- The 1st 3 activities confirm importance in advancing BC CCS regulatory frameworks
BC CCS Regulations in Development

- Focus has been review and analysis of the existing BC oil and gas legal and regulatory framework
- Identify gaps and changes to facilitate CCS projects
- Some gaps identified to date include:
  - site selection
  - MMV
  - long-term liability
- Legislative amendments contemplated for 2013
Saskatchewan CCS Framework Updates

- Oil and Gas Conservation Regulations, 2012
  - in force following proclamation of amended OGCA

- Amended regulations enable greater oversight for carbon storage, such as:
  - Part VIII – Production Operations:
    - Minister may approve or refuse CO2 disposal plan subject to terms and conditions and be provided with any information required
  - Examples of other applicable parts to CO2 disposal:
    - Well testing and measurement and data requirements
    - Records and reporting
Saskatchewan: Status of long-term liability for CO2 storage

- The long-term liability for storing CO2 is borne by well license holders, regulated under the OGCA.
- Analogues for liability transfer to the Crown exist in the Mining Sector.
  - The *Reclaimed Industrial Sites Act* addresses the long-term liability issues posed by uranium mine development.
Annex Slides
Alberta CCS Regulatory Background

- Alberta has a solid foundation of analogous oil and gas regulatory practices
- Recent legislative amendments and regulations reduce CCS regulatory barriers
  - CCS Statutes Amendment Act, 2010
  - Carbon Sequestration Tenure Regulation, 2011
    - Responds to applications for carbon sequestration tenure for CO2 injection deeper than 1000m below surface
    - The Regulation allows for creation of 2 separate Crown agreements for pore space tenure:
      - Evaluation Permit (5 years) to determine storage site suitability
      - Carbon Sequestration Lease (15 years)
BC CCS Regulatory Background

BC’s CCS regulations will build on existing authorities:

- The BC Ministry of Energy and Mines, under the *Petroleum and Natural Gas Act*, governs CO2 storage rights.
- Under the *Oil and Gas Activities Act*, the BC Oil and Gas Commission is the regulator of all oil and gas activities, including exploration and use of a storage reservoir.
- Regulations for the injection and underground storage of gases exist for acid gas from natural gas processing.
- About 12 permitted sites, providing a foundation for CCS regulations.
Saskatchewan CCS Regulatory Background

- Regulations already in place for some time governing CO2 injection and storage (i.e. Weyburn-Midale EOR project)
- Provincial CCS regulatory framework authorities from:
  - *Crown Minerals Act* authorizes agreements for the lease of spaces
    - Crown ownership of minerals on Crown lands
  - *Oil and Gas Conservation Act (OGCA)*
    - 2011 amendments expand powers and oversight for the storage of CO2 and other greenhouse gases
    - Term “non-oil-and-gas waste” replaced with “non-oil-and-gas substance” to clarify scope to substances from “prescribed industry”
  - *The Pipelines Act, 1998*
    - 2009 amendment to cover CO2 pipelines for non-oil and gas purposes