

# Canada Update: CCS Legal and Regulatory Developments

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The background of the slide features a photograph of industrial infrastructure. On the left, several tall, red and white striped smokestacks rise into a clear blue sky. Below them, a gravel train track runs horizontally across the bottom left corner. In the background, there are industrial buildings and some greenery.

# 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



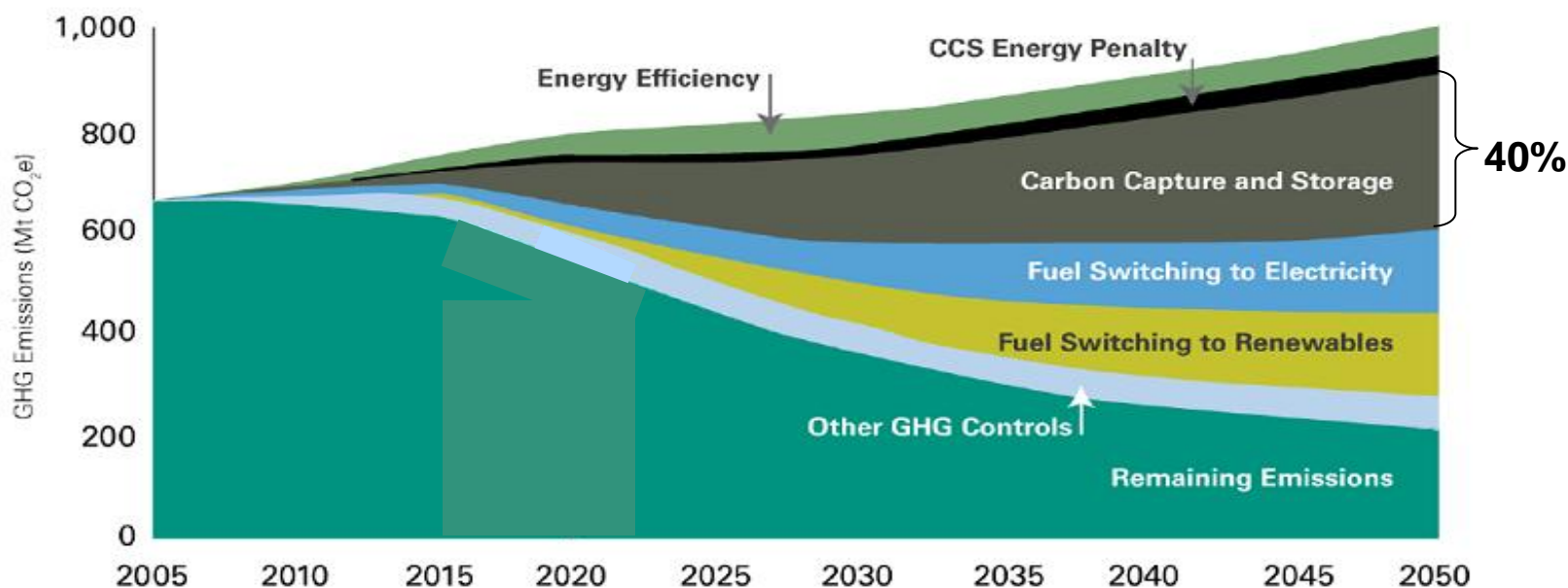
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# For Canada, CCS plays a large part of a least-cost scenario to reduce GHGs by 2050

## Role of CCS in GHG Emissions Reduction Strategy in Canada



Source: National Round Table on Environment and Economy's "Achieving 2050: A Carbon Pricing Policy for Canada", 2009

# 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

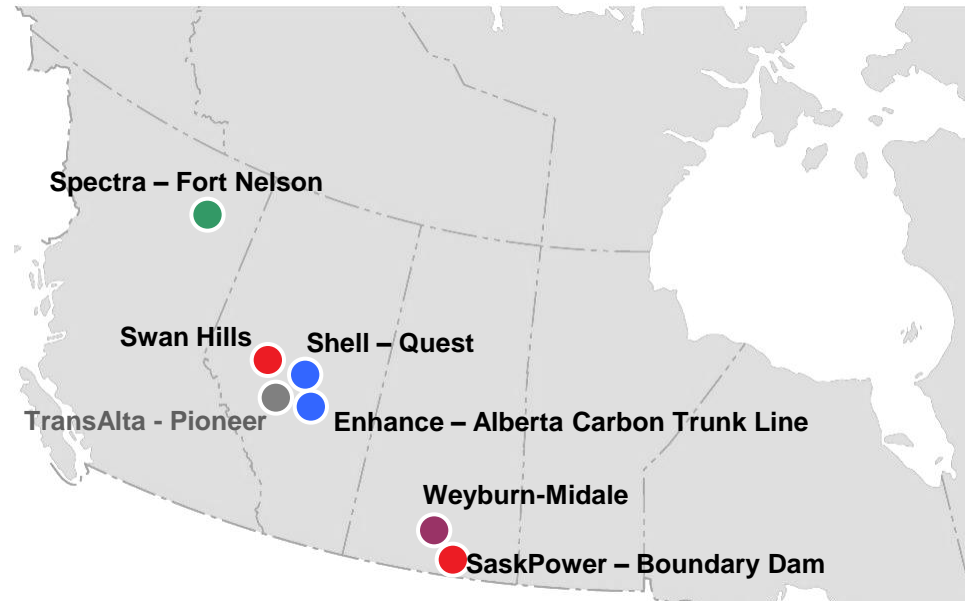
- Shell Quest (Alberta)
- Enhance Carbon Trunk Line (Alberta)

## 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



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# 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

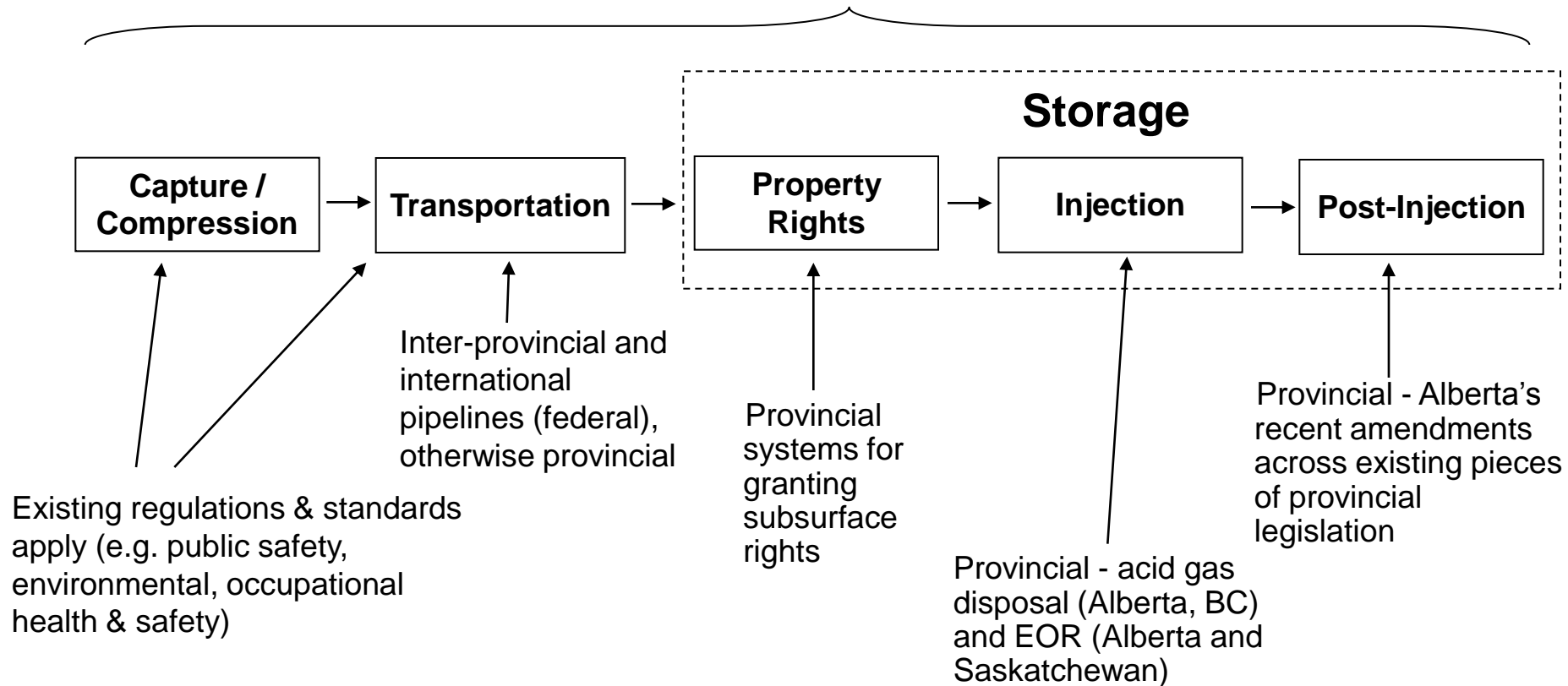
## **Federal Jurisdiction**

- 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



### 3. CCS Legal & Regulatory Framework developments



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# Provincial government proceeding with legislation/regulations for CCS projects

## British Columbia:

- CCS policy and regulatory framework under development

## Alberta:

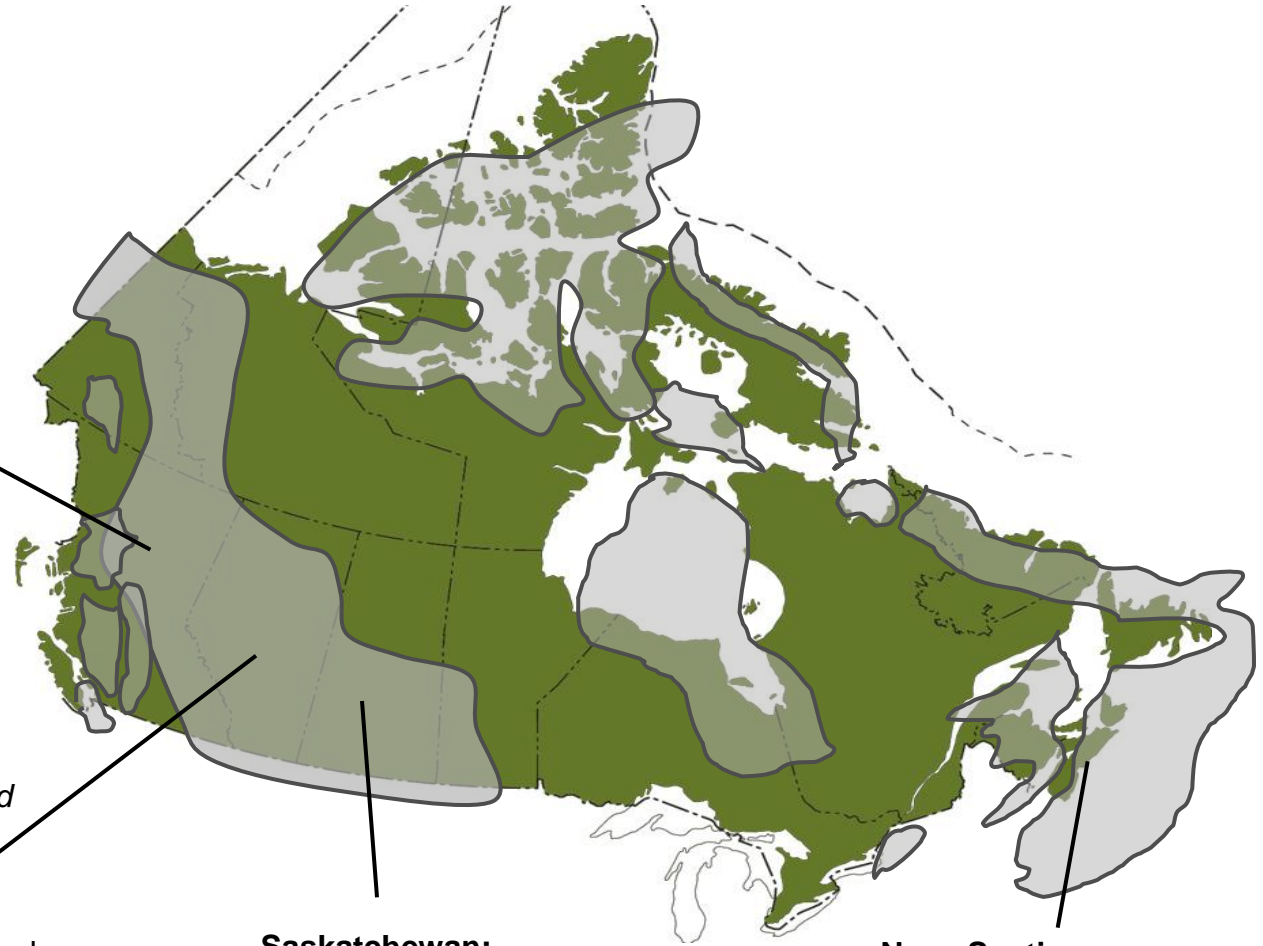
- *Carbon Capture and Storage Statutes Amendment Act* (December 2010)
- Regulatory Framework Assessment to identify and address any other potential regulatory gaps for CCS

## 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



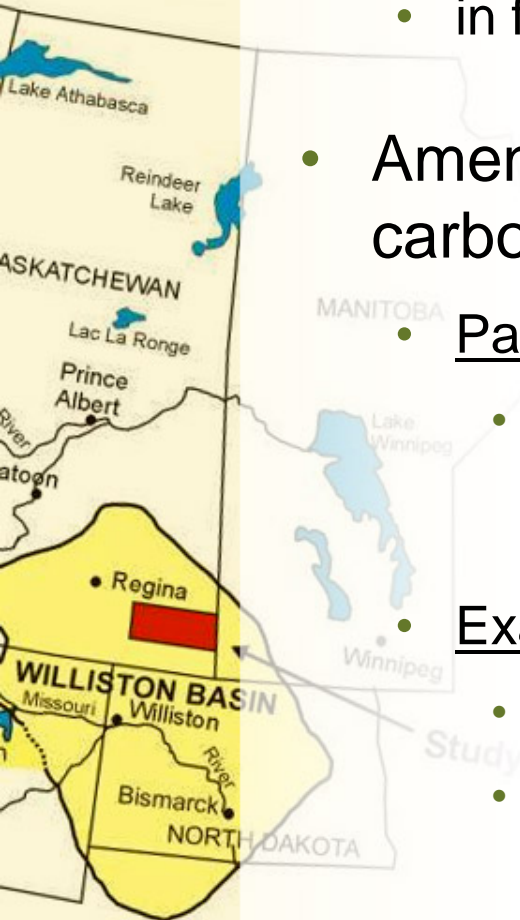
# BC CCS Regulations in Development

- 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



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# 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> pipelines for non-oil and gas purposes

