

Regulating CCS in Alberta

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IEA-SENER Joint Workshop
CCS in Mexico: Policy Strategy Options for CCS

Anchorage
2,277 km
(1415 miles)

Vancouver
817 km (507 miles)

Ottawa
2,847km (1,769 miles)

New York City
3,270 km (2,032 miles)

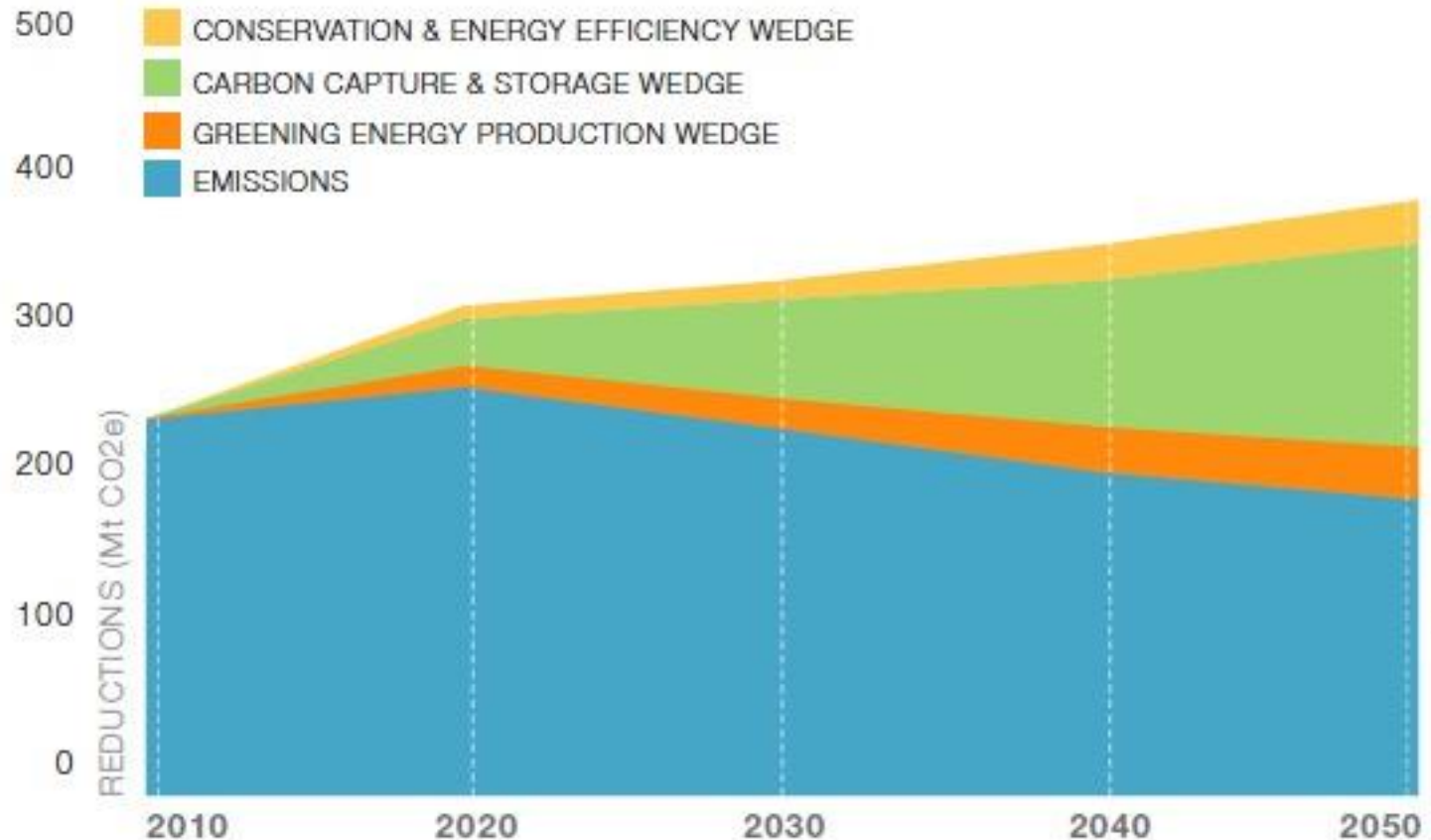
Mexico City
3,973 km (2,469 miles)

Alberta

Canada

United States

Alberta's Climate Change Strategy



CCS Funding Act (2008)

- *Carbon Capture and Storage Funding Act*
 - \$2 billion (CAN)
 - 4 projects in Alberta's demonstration program
- *CCS Funding Regulation*
 - Make use of 2B to help develop regulatory framework and conduct public outreach.

Alberta's Four Projects

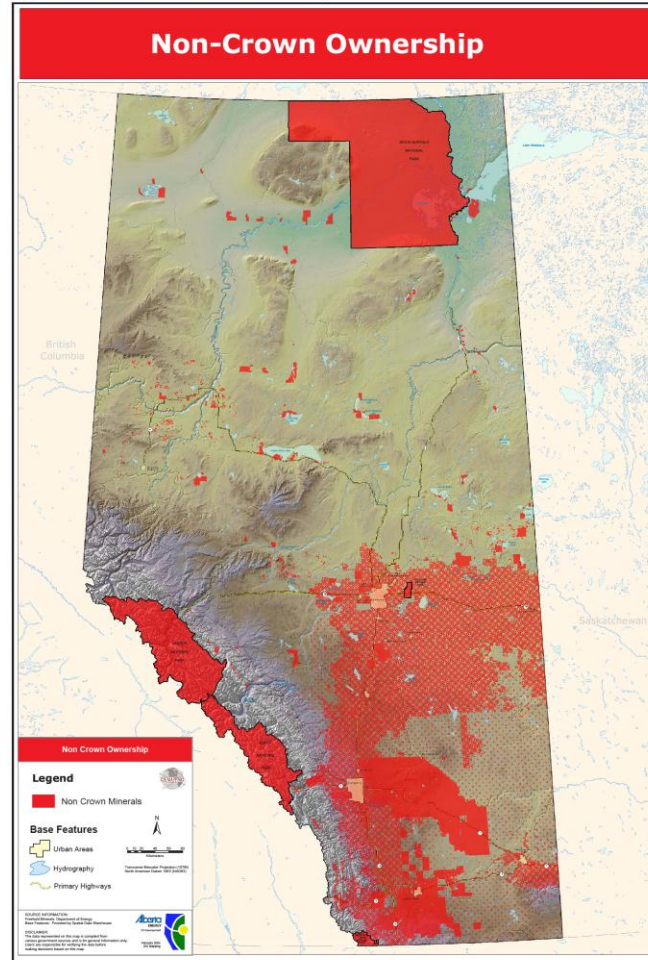


CCS Statutes Amendment Act, 2010

- *The Carbon Capture and Storage Statutes Amendment Act, 2010* was passed in Dec 2010.
 1. Pore Space Ownership
 2. Long-term liability
 3. Post -closure Stewardship Fund
 4. Tenure Agreements

Pore Space Ownership

Appendix 1: Crown - Freehold Mineral Ownership



Long Term Liability

- ▶ Alberta now has the authority to assume the liability for sequestered CO₂ via a closure certificate.
- ▶ After issuing a closure certificate:
 - Alberta becomes owner of CO₂.
 - Alberta assumes obligations under provincial environmental legislation.
 - Indemnifies lessee against damages.

Post Closure Stewardship Fund

- Alberta needs to ensure there is money available for long term stewardship.

Tenure Agreements

Carbon Sequestration Tenure Regulation

- Allows the Minister to enter into agreements under Part 9 of the MMV.
- Passed in April 2011 to respond to applications for pore space tenure (Leasing of Rights)
- The Regulation creates two separate agreements:
 - Evaluation Permit
 - Carbon Sequestration Lease

Regulatory Framework Assessment

- A very detailed review of our existing framework
- Also looking at some gaps:
 - Closure criteria.
 - Methodology and rate for the PCSF.
 - Role of risk assessment in CCS.
 - Clear roles and responsibilities for Alberta regulators.
 - How stakeholder engagement will take place.
 - Role of Env Impact Assessments in a CCS project
- Recommendations go to the Alberta Government in late-2012.

Regulating EOR

- Framework is in place today:
 - EOR tenure is related to mineral tenure
 - Well license and subsurface approvals required
 - Regular MMV and reporting
 - Offset credit program in place, but being reviewed in 2012.
 - Liability resides with operator
 - Although we are talking about some sort of hold back of offset credits to guard against future loss.

Transition

- Env Impact Assessments
 - Have we lost an opportunity to weigh in on site selection?
 - Resource Sterilisation
 - Would we assume long-term liability?
 - Retroactive post-closure stewardship fund payments?
 - Stakeholder engagement / transparency
 - EOR vs. CCS offset protocols
- ALL OF THIS MEANS MUCHMORE WORK IS NEEDED...

Thank You

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