

Environmental Lawyers in Government Conference Edmonton, Alberta Sept 13, 2005

Trans/Alta

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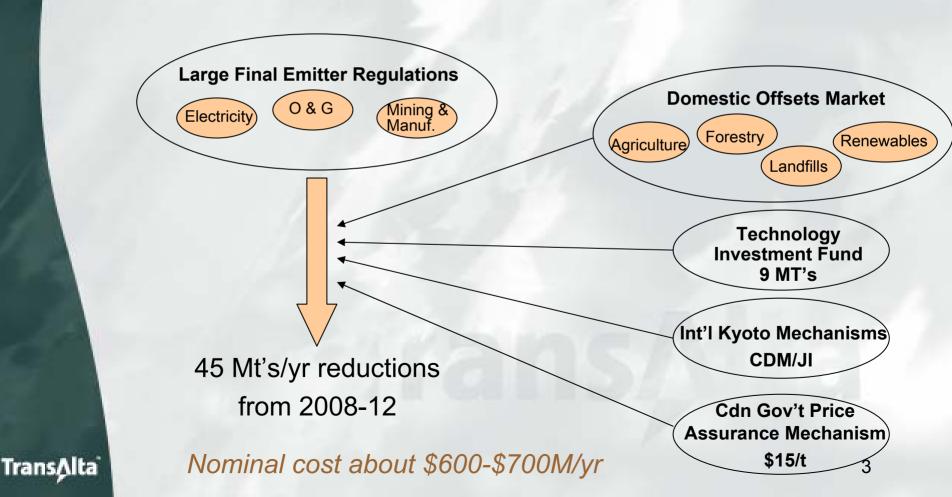
TransAlta

- Canada's largest investor-owned electric generation and marketing company. Operations in Canada, United States, Mexico, and Australia
- 10,000 MW generating capacity, \$8 billion in coal-fired, gas-fired, hydro and renewable assets
- Active on GHG trading, also NOx & SO2
- One of Canada's largest wind energy generators.
- TransAlta is a "Large Final Emitter"...fossil base, growth focus ...
 31 Mt/yr Canadian GHG emissions
- First Canadian company to purchase certified emission reductions under the CDM Kyoto mechanism

Carbon represents a business risk to be managed.

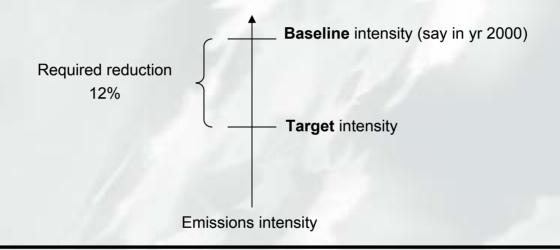
The Basics

There will be GHG emission reduction requirements for Canadian industry from 2008 – 12. Regulatory details are evolving, but the fundamental elements are clear.



The Mechanism for Reductions

Large Final Emitters (LFE's) will live in a "baseline and credit" world. The metric is emissions intensity – tonnes emitted per unit of production. It will work as follows:

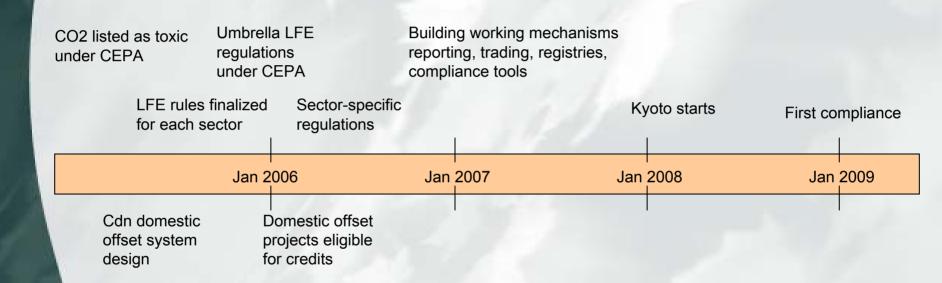


Compliance is achieved when

[Actual emissions] – [Offsets & credits] = Target emissions

Target intensity x production

The Schedule

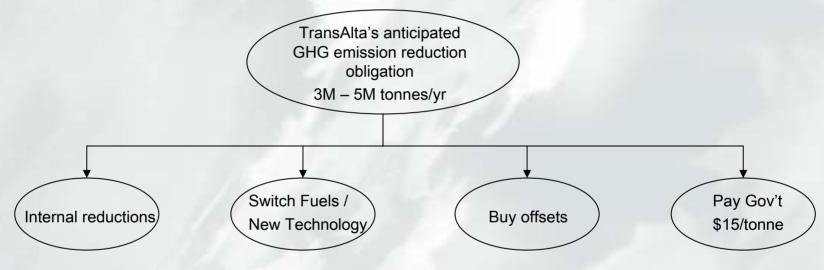


Canadian Gov't starts buying domestic and international offsets under Climate Fund

Likely an impossible timeline.

So What Are The Compliance Options

For a large emitter like TransAlta, there are several alternatives for compliance. All will likely be required:



- Efficiency improvements, process changes, controls
- Best option, most secure and manageable.
- Limited potential in fossil generation, abt 10%
- Switch to gas, hydro, renewables, install clean combustion IGCC
- Switching not possible in short term, nor smart
- Retrofit CO2 capture appears uneconomic today
- IGCC promising but 10 yrs out

- Domestic and international reductions by others
- The primary option for short term compliance
- Will ultimately be replaced by technology

- The backstop option in Canada
- Not appealing but expect many industrials will have to use

Evolving Strategy

Pre-2008



Make internal reductions as opportunities present

Build an offsets portfolio early & cheap

- initially international
- domestic when possible

Invest in clean technology development

Build renewables

2008-12



Use offsets portfolio

Buy more offsets as req'd for compliance, domestic focus

Pursue commercial opportunities to build IGCC, CO2 sequestration

Replace retiring plants with lower-emitting ones

More renewables

2013-2017



Apply technology & develop more

Use offsets as a filler.

Possibly int'l linkage & emissions trading

???

Different compliance strategies for the short, medium and long term.

Buying Offsets is a Challenge

From a Canadian buyer's perspective, TransAlta sees:

International Kyoto Mechanisms:

- many seller countries and companies just awakening
- a struggling CDM approval process, none for JI
- aggressive Japanese buyers, growing EU, Funds
- hesitant Canadian buyers with no clear obligations

Minimal use of Kyoto instruments by Cdn companies

Cdn Domestic:

- huge development opportunities, minimal projects
- no protocols, process, instruments, registries...
- uncertainty about what will count
- hesitant Canadian buyers with no clear obligations

Inadequate supply to meet LFE demand

The picture does not look good for buyers with reduction obligations

What's Likely to Happen (in the Kyoto period)

Some LFE's will pursue international offsets. Most will not.

Some LFE's will pursue domestic offsets. But the Cdn Gov't is also buying these. If the gov't pays \$15/t or more, then LFE's won't buy these either.

LFE's can buy up to 9 MT's of credits from the Technology Investment Fund. Its likely to be oversubscribed.

Net result is that most LFE's will avail themselves of the \$15/t price assurance mechanism. Gov't will use this money to buy more offsets internationally and domestically.

Not exactly an exciting scenario

Summary

The Kyoto period will represent a shake out for Canadian industry. Some companies will find innovative ways to reduce emissions at lower than average costs. This represents a competitive advantage.

Other companies will simply pay their \$15/tonne compliance tax. The price signal will start to be incorporated into planning and cost structures.

Longer-term, technology and renewables will be able to contribute significantly.

End

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