Securing Canadian Wood Pellet Supply

3rd AEBIOM Bioenergy Conference
25-27 June 2012 | Brussels, Belgium

Gordon Murray, Executive Director
May 21, 2012
The first load of industrial pellets was shipped on the *Mandarin Moon* from Prince Rupert, Canada to Helsingborg, Sweden in 1998.

Exports in 2011:
- Europe 1.2 million tonnes
- Japan 60,000 tonnes

Sources
- Western Canada 90%
- Eastern Canada 10%
Canadian Exports to Europe - 2011

- 1.2 million tonnes
- UK – 51% (power)
- Netherlands – 24% (power)
- Belgium – 16% (power)
- Denmark – 2% (power)
- Italy – 6% (heat)
- Sweden 2% (power)
- Mostly long-term bilateral contracts, FOB and CIF
Canadian Annual Pellet Production Capacity

• Existing
  – Western Canada – 1.9 million tonnes
  – Eastern Canada – 1.0 million tonnes

• Planned (Ontario)
  – 1.9 million tonnes
  – Timing: 18-24 months
  – Export logistics need work
Eastern Canadian Logistics Are Challenging

• Small plants – average 55,000 tonnes/year
• Belledune and Halifax are active terminals
• Long distance from Ontario to ports
• First to solve the logistics challenge will control supply
  • Control rail cars
  • Central terminal
  • Port storage and loading
Wood Pellet Fibre Sources

Sawmill residues

Logging residues
Former Uses

Sawmill residues

Logging residues
Fibre for Industry Growth

• From sustainably managed forests
  • Salvaging harvest residuals
    (low grade logs, tops, branches)
  • Logs unsuitable for lumber
• Costs will increase
Canadian Pellet Shipping Routes

Asia - 8,000 km

Europe - 5,000 km

Europe - 16,500 km
Global Market Opportunities

- Possible 300% growth by 2020?

**GLOBAL PELLET CONSUMPTION – 2015 AND 2020 OUTLOOK**

Source: Pöyry Global Pellet Outlook to 2020
Canada’s Market Opportunities

- Europe – proven market and fastest growing
- Canadian industrial market – coal power emissions regulations have stalled
- South Korea and Japan
Canada uses 60 million tonnes of coal annually
New coal emission regulation gazetted
  • Would take effect in 2015
  • Cap emissions at 375 tonnes CO$_2$/GWh
  • Similar to natural gas combined cycle
  • Applies to new units and those aged 45+
  • Biomass deemed to have zero emissions
  • Regulation is stalled
South Korean Market Situation

- RPS for power generation: 2012 – 2%
- Increase ~ ½% annually until 2022 – 10%
- Biomass energy target for 2020: 4,211,000 toe
- Pellet equivalent: 10 million tonnes
- First transactions announced
Japan Market Situation

- Fukushima caused chaos in power sector
- Nuclear energy is unpopular
- New feed-in tariff effective July 1, 2012
- Applies to wind, solar, hydro, geothermal, biomass
- Renewable energy to increase from 6,500 MW to 30,000 MW.
- Presently only one small customer – 60,000 tonnes per year
Advantages of Canada as a Supply Source

- Proven producers of high quality pellets
- Pellet fibre is sourced from sustainably managed forests, 42% of world’s certified forests
- Part of an integrated forest products industry: Lumber, panels, pulp & paper, bio-products, energy
- Stable political environment
- Producers are ethical, reliable, and trustworthy
Europe will continue to be a dominant market for Canada

Domestic power market would expand capacity in central and eastern Canada

Asian market remains uncertain

Pellet prices will have to allow for:
- Higher fibre costs
- Long distances to port, i.e. Ontario
For more information

- gord@pellet.org
- www.pellet.org