Climate Change Policy, Green Power, and Biomass

IEA Bioenergy Task 38 Workshop

September 15, 2004

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Outline

- Canadian Climate Change Policy
- Forest Products biomass utilization
- Future Directions
- Final Thoughts

Climate Change Policy

- Biomass is carbon neutral
- Large Final Emitters Process
- Pulp and Paper MOU
- Offset Credit Potential
- Treatment of Cogen

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Biomass Carbon Neutrality

- Biomass includes: wood wastes, black liquor, sludge gas, and landfill gas, etc…
- Consistent with IPCC convention, biomass is CO2 climate neutral
- CO2 emissions from biomass sources are reported for informational purposes only
- Biomass CH4 and N2O are GHGs

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LFE Process

- Identified Industrial Sectors only
- Mandatory GHG Emission Intensity Reduction Targets
  - Equivalent to 55Mt CO_2e
- Legislative Backstop
- Covenants as the exception
- Mandatory Reporting

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Pulp and Paper MOU

- Principle based
- Sets target at -15% of 2010 BAU
- Sets parameters for policy application to forest products industry
  - Offsets from fuel switching, forest activities, etc
- Commits government to further consultation on cogen and early action

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Offset Potential

- Maximum flexibility
- Fuel switching at wood manufacturing operations, etc.
- Forest sinks
- Forest Management activities

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Treatment of Cogen

- Avoided emissions
  - Give credit where credit is due
  - Complex politics
- Clean Energy Offset
  - Biomass cogen included
- Demand Side Incentive (offset)
  - Energy efficiency projects

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Forest Products Biomass

- 55% of P&P energy from Biomass
- Near the top internationally
- Current use = 450,000 TJ
  - 26% wood waste
  - 72% black liquor

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Cogeneration

- Current Capacity = 1,677 MW
- Largest industrial capacity
- Behind international competitors
- Equivalent to supplying over 800,000 homes
- Displaces 4-5 Mt of CO2e

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Future Directions

- Surplus = 6-7 M BDt
  - Energy equiv. ~140,000 TJ
  - Mostly mill residue; very conservative on forest floor
  - Plentiful in west; tight in east
  - Could displace 6-7 Mt CO_2e
  - Not all is economic

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Future Directions (cont'd)

- Industry goal is self-sufficiency
  - Not just for GHG
  - Economic too
- Ultimate potential for exporting power/steam

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Green Power

- Biomass power generation is renewable, low impact
- Eligible for EcoLogo certification
- Further substantiation of sustainable practices
- Enable industry to participate in green power programs

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Final Thoughts

- Climate change policy is creating interest in renewables
- Biomass is often overlooked among renewables
- Bioenergy is another example of the sustainability of the industry

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