

Presentation 3.6: Benchmarking energy use and greenhouse gas (GHG) emissions

Tom Rosser

Director, Policy, Economics and Strategy
Forest Products Association of Canada (FPAC)

E-mail: trosser@fpac.ca

Abstract

This presentation will focus on the benchmarking energy use and GHG emissions in the forest products industry and their relevance to policy development. This will include a review of the equity and efficiency issues raised by the use of bench marking and best available technology in the establishment of targets for reducing GHG emissions. With reference to the Canadian policy development process, the presentation will explore some of the issues presented by the transition from a voluntary to mandatory regime for GHG abatement.



Benchmarking Energy Use and GHG Emissions

International Seminar on Energy and the Forest Products Industry

Rome, October 31, 2006

Tom Rosser

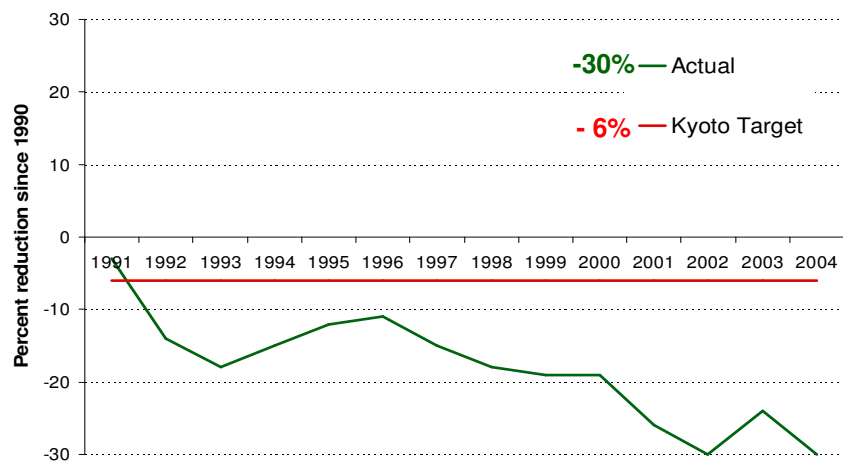
Overview

- Draft methodology to allow international “benchmarking”: e.g. a methodology to allow for emissions data to be consistently monitored and compared so that they can be assessed against a given standard – is currently being developed for the pulp and paper industry under IEA auspices
- 5 countries -including Canada- are participating. Project to be completed by December 31st, 2006
- An update on this effort was the subject of an October 9 presentation at IEA Event:
“**Energy Benchmarking in Pulp and Paper Mills**” by Thomas Browne
- Focus of this presentation will be on use of benchmarking and other techniques in the development of energy and climate policies

Canada's Forest Industry and Emissions Mitigation

- Pulp and paper sector Canada's largest industrial energy user
 - 24% of the total- although share of ghg emissions much smaller due to reliance on self-generated renewables
- Sustained leadership among Canadian industries in reducing both emissions intensity and absolute emissions

Total direct emissions from pulp and paper mills vs Kyoto objectives

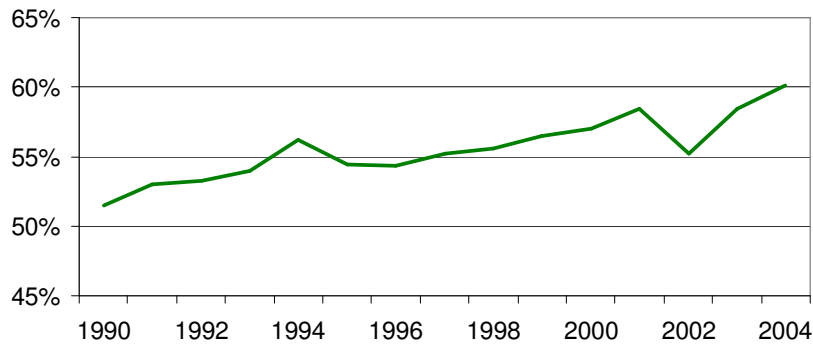


Pulp & Paper Sector Energy Self-Sufficiency

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Self-Generated Energy as Share of Total Energy Use



Source: FPAC Energy Monitoring Report 1990-2004;

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Canadian Climate Change Policy- A Brief History

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- 1995: Voluntary Registry System Established**
- 1997: Canada Agrees to Kyoto Target of -6% below 1990 in 2008-12 period- equivalent to 30% emissions reduction relative to "business as usual"**
- 2002: Parliament votes to ratify Kyoto**
- 2006: Change of Government, details of emissions trading system under review and implementation delayed from 2008 to 2010**

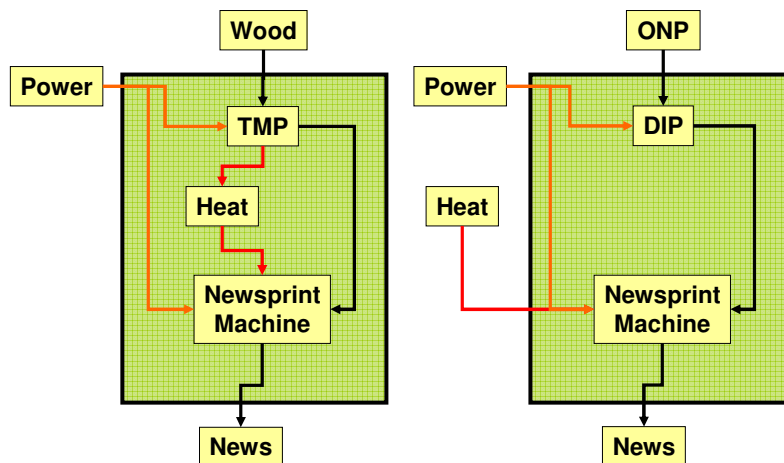
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Canada's Forest Industry and Climate Policy

- At the international level, worked with NCASI, ICFPA partners and other stakeholders on development of freely available emissions calculation tools for wood and pulp and paper sectors.
- In November, 2003, signed an MOU with the Prime Minister on climate change
 - First industry in Canada to do so
- MOU committed pulp and paper sector to 15% improvement in 2010 emissions intensity relative to "Business as Usual" baseline
 - Allocation of target amongst firms and mills largely left to industry
 - Concept of Best Available Technology Economically Available to be used to set targets for major new capital projects

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Two different newsprint processes



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Comparison by emission intensity, production

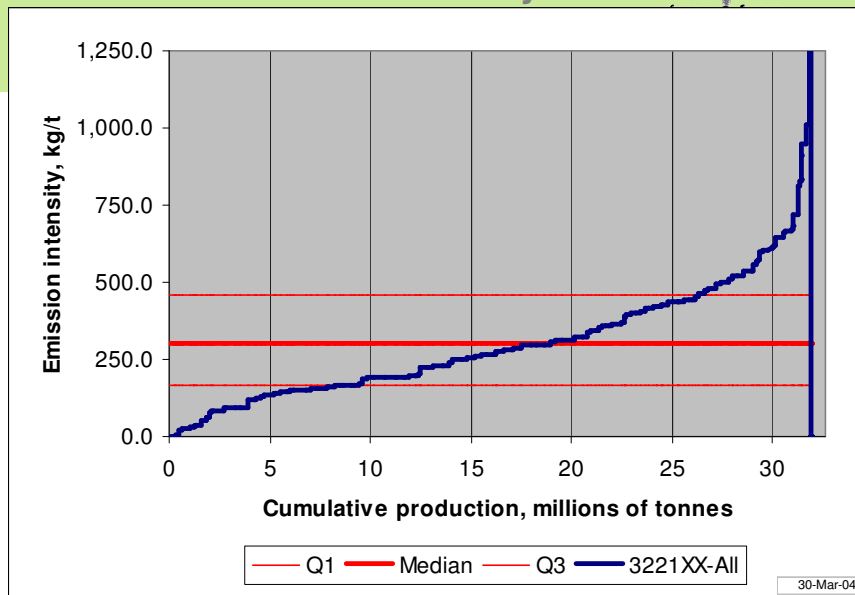
Allocation by NAICS and pulp type

		P&P from chemical	P&P from mechanical	DIP, purch. pulp
32211x Pulp	Mt kg/t			
322121 Paper	Mt kg/t			
322122 News	Mt kg/t			
322130 Board	Mt kg/t			
All industry	32.7 Mt 338.3 kg/t	14.8 Mt 396.4 kg/t	14.6 Mt 263.8 kg/t	3.3 Mt 408.7 kg/t

Data for year 2000

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All industry



Data for year 2000

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Canada's Forest & Paper Sector: Climate Policy Priorities

- A fair and predictable set of ground rules for domestic & international carbon markets:
 - High costs and long lives of production technologies in the pulp and paper sector make policy certainty important
- Equity of treatment for all forms of low-impact, renewable energy technologies
 - Canadian industry's record of emissions mitigation and increased eco-efficiency has been based in large part on use of large part on increased use of surplus wood residues
 - Although regional, the fibre situation is fundamentally different than that of Europe- significant surplus residues are still available in parts of Canada.

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Canada's Forest & Paper Sector: Climate Policy Priorities (Continued)

- Appropriate recognition for emissions mitigation opportunities in the solid wood sector
 - Although considerably less emissions intensive than pulp and paper, significant opportunities exist
 - FPAC initiating annual survey of about 1000 establishments in the sector to gain better data on energy use
 - Canada has proposed "offsets" or domestics project – based credits trading to recognize reductions in sectors not covered by emissions trading
- Sustainable forest management can make a significant contribution to emissions mitigation efforts:
 - The potential of forests and sustainable forest management practices to contribute to domestic and global emissions mitigation efforts should be recognized in policy frameworks.

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Canada's Forest & Paper Sector: Climate Policy Priorities (Continued)

- Technology and Innovation:
 - Believe that breakthrough technologies like gasification and the biorefinery concept offer significant economic, social and environmental benefits for Canada and the global forest community
 - “Spillover” effects of investment in the development and early deployment of these technologies create clear rationale for public sector involvement