



# **Recycling Council of British Columbia 2011 Zero Waste Conference**

## **Recycling as the Cornerstone of Extended Producer Responsibility**

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# What are the Goals of EPR?

- Promote diversion from disposal
- Promote sustainable packaging choices
- Equitable to all materials
- Cost sustainable system
- Public education on packaging choices



# Examining the Materials

- ❑ Printed and Packaging Materials encompass a myriad of materials
  - **Reduced but not recyclable**
    - Multi-laminate plastic films
  - **Compostable AND/OR recyclable?**
    - Boxboard, degradable PET
  - **Compostable but not recyclable**
    - Degradable films (e.g., Sunchips)
  - **Good for Energy from Waste**
    - Composite packaging (e.g., pet food bags)



So....

- ❑ ... if there are so many ways of handling printed and packaging materials why do stewardship programs only compensate and recover costs of recycling?
  - **Best case is to landfill!**



# Advancing Effectiveness?

- ❑ In 2004, Ontario diverted 823,000 te of material...  
16.1% of generated
- ❑ In 2009, Ontario diverted 870,000 te of material...  
16.6% of generated
  - **3.3% growth**
- ❑ In 2004, gross cost of recycling in Ontario was \$244  
per tonne
- ❑ In 2009, gross cost of recycling in Ontario was \$327  
per tonne
  - **34% increase**



## Infrastructure Needed

- ❑ Original recycling programs handled a limited number of materials (9)
  - **ONP, OCC, Mixed Paper, PET, HDPE, Steel, Aluminum, Clear and Coloured Glass**
- ❑ Only about 5-7% of waste stream falls under deposit programs
- ❑ 35-45% total possibly recyclable today
  - **Could increase to over 50% with advances for more rigids and films**



# Infrastructure Needed

## □ How many categories do we need to separate?

- Newspaper
- Old Corrugated Containers
- Mixed Paper
- Aseptics, Polycoated Cartons
- Aluminum cans
- Aluminum foil
- Steel cans
- Clear glass
- Coloured glass
- PET (bottles and thermoforms)
- HDPE bottles (natural and coloured)
- PP (emerging plastic)
- Tubs and Lids (PET, HDPE, LDPE, PP(?), PS)
- Plastic Film (monomer)
- Plastic Film (composite)
- EPS
- Hot drink cups (paper based)
- Cold drink cups (paper based); Cold drink cups (PET, PP, PS, PLA)
- PLA bottles, thermoforms



# Can We Sort Everything?

- ❑ Short answer...Yes!
- ❑ Long answer
  - **How much do you want to spend?**
    - \$50 million to do all materials on list for 140,000 tpy
    - Would increase recycling costs 1.5 to 2.0 times over current costs
  - **If we recover it, will they come?**
    - What do we do with all the recovered materials?
    - What do we do with incompatible materials?



# Simpler Times...Lower Costs

- ❑ If to handle all materials through recycling would triple costs compared to 2004, is recycling through curbside the answer for all materials?
- ❑ Alternatives?
  - Film through retail (trials ongoing)
  - Design for recyclability limitations
  - Punitive fees targetting hard to manage materials



# Fairness

- ❑ PET yields at end markets 70-75% today, down from over 90% ten years ago
  - Full bottle jackets
  - Lightweighting changing closure to bottle ratio
- ❑ Why does a bottle with a full jacket pay the same as a bottle with a minimal paper label?
  - What is the impact on market value of that full jacket?
- ❑ How much should a degradable PET bottle user pay?



# Sustainability

- Should industry **ONLY** pay for recycling?
- Should industry pay for EFW, composting, landfilling?
  - **Particularly in light of new PLA, PHA, DPET packaging....composting no longer for food and limited non-food items**
- What happens with degradables?
  - **Do they pay?**



## Using only Recycling...

- ❑ No cost recovery for materials manageable only through composting, energy recovery and landfill
  - In so doing are we indirectly supporting move to non-recyclables/degradables
  - Is that fair? Do degradables end up not having to pay for management?



## Using only Recycling...

- ❑ Is the single system the best single choice for EPR of printed and packaging materials?
  - **Gross costs can be conservatively estimated at upwards of \$400 per tonne and beyond in order to manage the full list of potential materials**
  - **Even at that, does not account for ALL costs of managing all materials, i.e., industry not fully paying for the management of their materials**



# Using only Recycling...

- ❑ Are we stifling evolution/revolution?
  - Forcing packaging into the “recycling” stream may not be beneficial over longterm
  - Maybe degradables from biogenic sources are better in longterm



# Conclusions

- ❑ Recycling is just one means of managing materials
- ❑ Packaging changes/evolution exceeding ability of facilities to adapt (product cycles < MRF cycles)
- ❑ Controlling costs more difficult when forcing materials into a fixed system
- ❑ Producer “responsibility” only as it applies to one management method



# Thank You

- ❑ I would like to thank the Recycling Council of British Columbia for this opportunity to speak to you today.
- ❑ If you have any questions please contact me at:  
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