

# Economic Efficiency: Shared vs. Extended Producer Responsibility

## Residential Printed Paper and Packaging



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2015 Waste ReForum:  
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# Topics

- Extended Producer Responsibility Redux
- Shared responsibility history and outcomes
- Extended Producer Responsibility in practice for printed paper and packaging (PPP) in BC
- EPR for PPP and competition

# Extended Producer Responsibility Redux



It is, "...a policy strategy that could provide ongoing incentives for the incorporation of environmental concerns into the design of products.

If producers were made responsible ...they would find it in their self-interest to anticipate end-of-life costs and obligations and design their products to minimize those costs...

**Producer Responsibility at a Turning Point?**

*Reid Lifset and Thomas Lindhqvist*

# Extended Producer Responsibility Redux



...resulting policy schemes would be dynamic—that is, as the product mix, production and processing technologies, or market and societal conditions changed, so too would the responses by the producers facing EPR requirements...

...when the task of meeting the goals of EPR was assigned to producers, business acumen would be mobilized to find the most clever and cost-effective means of reaching those goals, without detailed prescriptions by governments.”

**Producer Responsibility at a Turning Point?**

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# Extended Producer Responsibility Redux



- EPR was never conceived to be, nor will it ever be about producers' covering in part or in whole, anyone else's costs of recycling their products
- A fundamental underlying premise of EPR is producer choice and self-determinacy in designing market transactions
- EPR is a mechanism towards economic efficiency
- Economic efficiency is not about the lowest cost per se: it is primarily about innovation

# Economic efficiency is much more than lowest cost



- Static efficiency – minimizing the cost of waste reduction given the technology and institutions available today
- Allocative efficiency – another word for optimal resource efficiency
  - The beneficiary of resource efficiency is the environment, economy and citizens;
  - Long-run environmental and economic benefits of meeting the last unit of waste reduction or diversion target exceeds the cost of achieving the last unit of that target.
  - Public policy determines what is optimal amount of resource efficiency
- Dynamic efficiency - innovation so that the cost of waste reduction declines over time, that is, encouraging technological progress from cradle-to-cradle



# Towards a system of recycling

“A system is a network of interdependent components that work together to try to accomplish the aim of the system.”

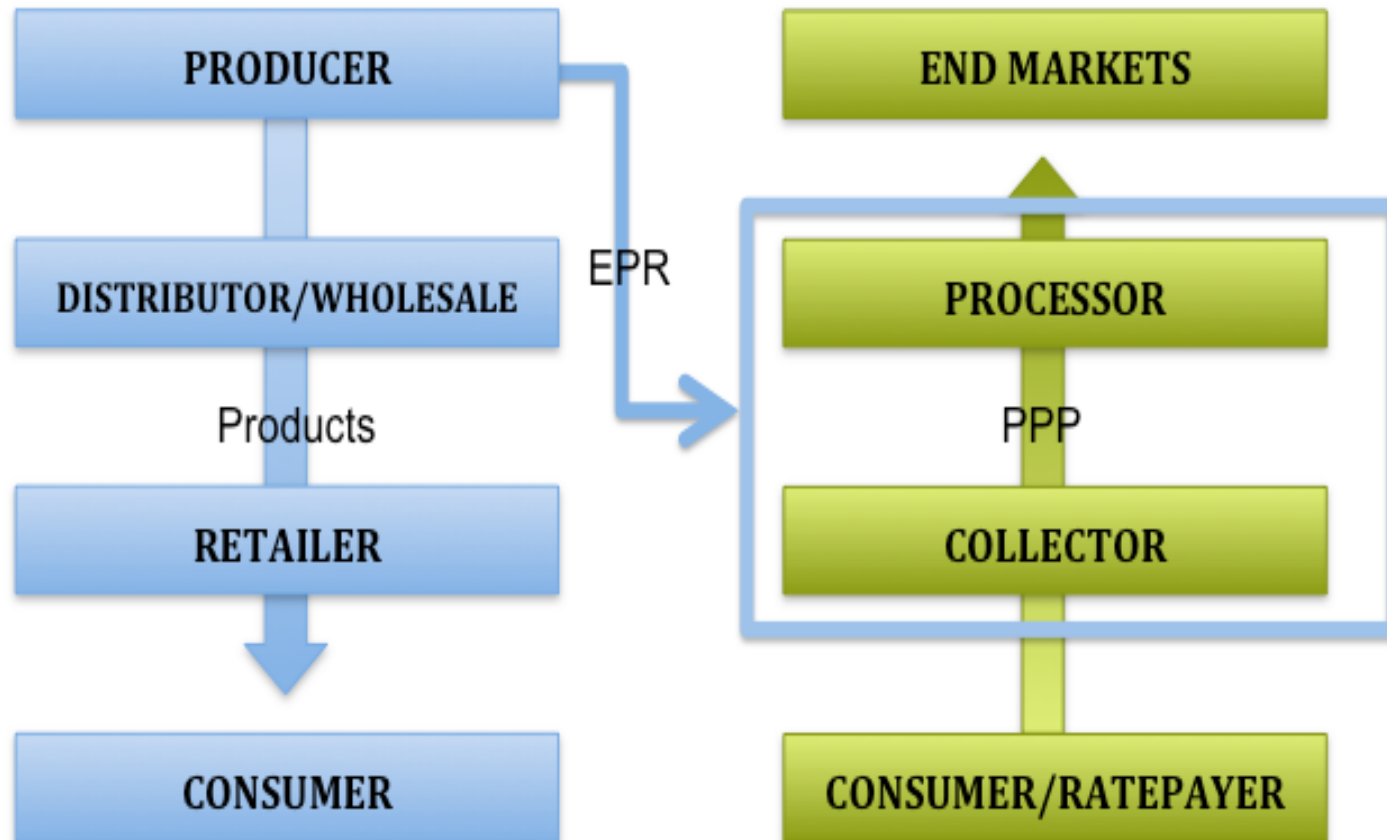
“The secret is cooperation between components toward the aim...”

“A system must be managed. It will not manage itself.”

W. Edwards Deming

Deming, W. Edwards. *The New Economics for Industry, Government, Education*. 2<sup>nd</sup> Edition. The MIT Press, Cambridge Massachusetts. 1994.

# Systems of production and recycling





# A history of shared responsibility Ontario, Canada



- **Pre-1985**
  - Beverage and packaging producers, grocers want to switch to non-refillable containers
  - Curbside recycling is conceived
  - Provincial and municipal governments embrace idea as a solution to the “landfill crisis.”
- **1987-89** OMMRI exchanges \$20 million to roll-out the Blue Box for a reduction in the soft-drink refillable quota from 75% to 40%.
- **1990-91** NDP Government of Ontario proposes broad-based deposits
- **1992** Grocers convene the Canadian Industry Packaging Stewardship Initiative (CIPSI) as blue box funding mechanism (never realized)
- **1994** Ontario gov’t requires municipalities with pop. > 5,000 to operate and maintain a blue box waste management system

# A history of shared responsibility Ontario, Canada



- **1996** Government eliminates subsidies for recycling. Market prices for recyclable materials crash - municipalities begin to scrutinize recycling costs
- **1998** City of Toronto introduces concept of City by-law mandating an LCBO deposit-refund system
- **2000** Waste Diversion Organization created with \$14.5 million supplied by the LCBO to cover 3 years of recycling costs + WDO start-up
- **2002** Waste Diversion Act requires producers to cover 50% of net Blue Box program costs



# Cost drivers 15 years on

- Declining size and distribution of newspapers, reducing the proportion of printed paper to packaging in the Blue Box system
- Light weighting of printed paper products and packaging, increasing the number of units per tonne for sorting and processing
- A shift from glass, metal and paper packaging to plastic packaging
- Increasing use of composite and multi-layer plastic packaging which is difficult to sort and lacks end-markets
- Inability of processing and logistics systems to adapt to the rapidly changing mix of printed paper and packaging

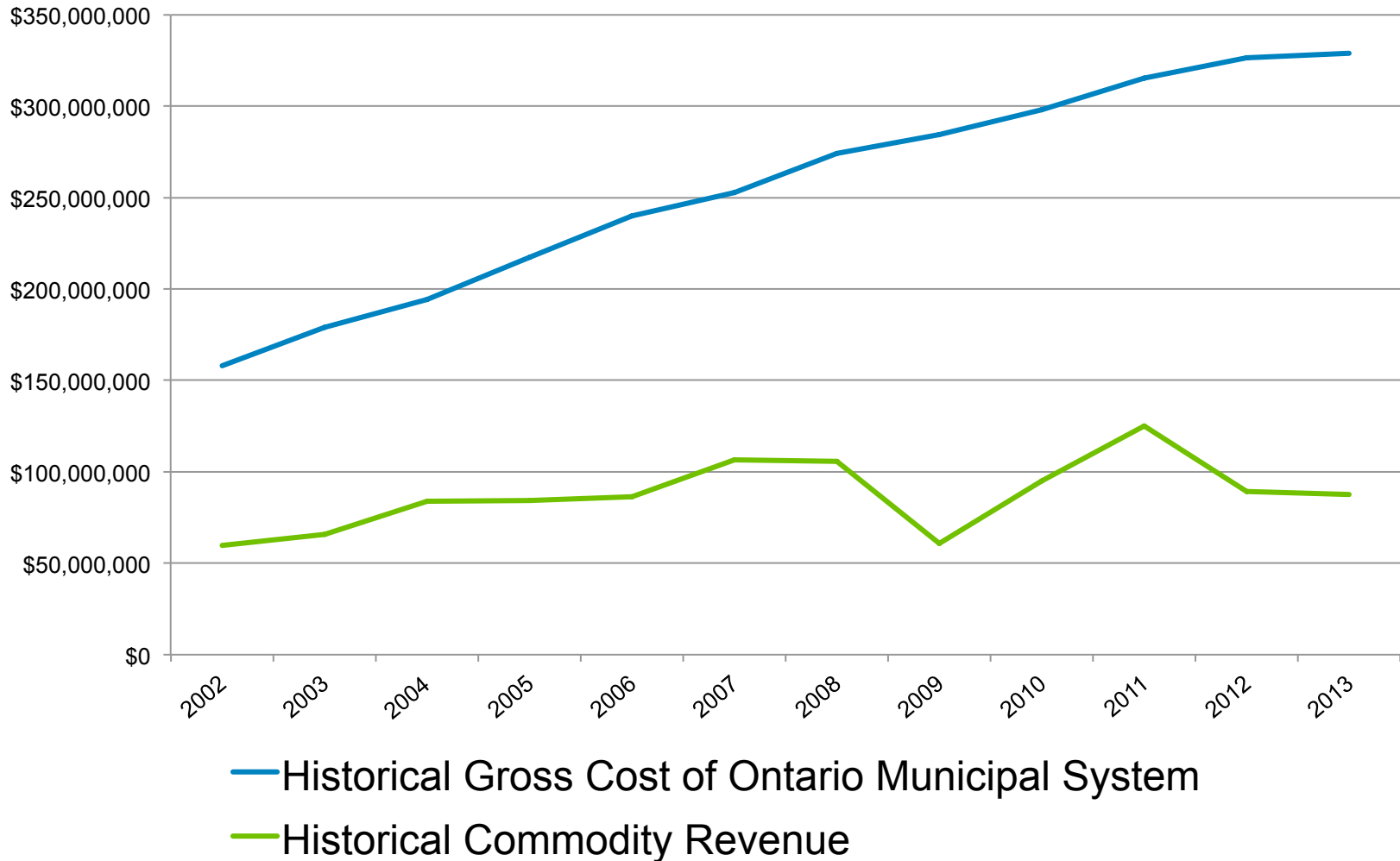


# Shared responsibility outcomes

- Utility pricing of municipal recycling services
  - A highly complex assessment of what construes “reasonable” cost used as the basis for producers paying 50% of program costs
- Frustration – divided responsibility and accountability
  - Neither party is able to take the steps necessary to manage the other’s cost drivers
  - 2014 arbitration between SO and Ontario municipalities
- Inefficiency
  - Limits the opportunities for producer-municipal collaboration to reduce collection and recycling costs with today’s practices and technologies
  - Limits the ability to drive the optimal amount of recycling (resource efficiency)
  - Reduces opportunities for innovation



# Ontario PPP Historical Costs



# BC's approach to EPR for PPP



- BC regulation requires full producer responsibility and assumes producer self-determinacy
- Producers formed MMBC to submit a plan for Director's approval
  - Consistent PPP collected across the province
  - Collection payment offer reflecting an exchange of value between municipalities that want to stay in the collection business and producers that want them to remain in that role
  - Competitive procurement to select most innovative and best-value post-collection system
  - MMBC receives commodity revenue based on composition of inbound PPP and reference industry commodity price indices



# Producer self-determinant EPR

- **Preserves the benefits of municipal PPP collection**
  - Synergies with other municipal collection and waste management services
  - Municipalities continue to be first-point-of contact for their residents
  - Minimizes disruption to residents
- **It enhances the efficiency of post-collection operations (static efficiency)**
  - Processing economies of scale
  - Improved logistic efficiency
  - Larger consolidated quantities of processed PPP have access to wider markets and command higher commodity prices



# Producer self-determinant EPR

- **Incentivizes producers and collection and post-collection service providers to increase recycling (allocative/resource efficiency)**
- Financial incentives designed to induce municipalities and private collectors to collect more PPP
- Collection and processing operating standards in conjunction with financial incentives used to maximize material quality and recycling rates while minimizing processing residue at MRFs
- More opportunity to ensure processing investments in post-collection infrastructure match the incoming stream of recyclable materials





# Producer self-determinant EPR

- **Maximizes opportunities for innovation (dynamic efficiency)**
- Transformation of post-collection to an integrated system
- Investments in post-collection logistics and processing technologies:
  - Integration of 40 PPP subcontractors into post-collection system
  - Upgrading of 7 existing MRFs into pre-conditioning facilities for directing fiber to market and plastic/containers to dedicated sorting
  - Construction of a dedicated sorting facility with 16 optical sorters to separate containers, including plastics by resin type
- Connecting producer decisions to use difficult-to-recycle materials and MMBC's costs of providing compliance



# Saskatchewan

- December 18, 2014 policy changes
  - A permanent exemption for stewards < \$2 million in gross annual revenue, generates less than one tonne of PPP annually, operates as a single point of retail
  - A two-year exemption for newspapers regardless of size and all businesses with annual revenue between \$2 and \$5 million.
    - During this period, these businesses would not be required to report their PPP and only pay a \$500 flat fee
  - During the two-year period stewardship fees must be submitted to the Minister for approval prior to taking effect
- MMSW's approved Waste Packaging and Paper Stewardship to launch on January 1, 2015 delayed
- No amending regulations issued to date



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