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EXTENDED PRODUCER RESPONSIBILITY (EPR) IN CANADA

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Halifax
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Duncan Bury
Environment Canada



OVERVIEW

- What's the issue?
- What is Extended Producer Responsibility (EPR) and how has it evolved in Canada?
- Governmental roles and responsibilities
- Canadian Council of Ministers of the Environment (CCME)
- EPR and stewardship program models
- Canadian EPR programs with a special look at paint, used oil and electronics and electrical equipment (EEE)
- Issues and challenges
 - Municipal role
 - Driving environmental product design and improvement
 - Visible and invisible fees
- What have we learned?
- Where is EPR headed in Canada?

WHAT'S THE ISSUE?

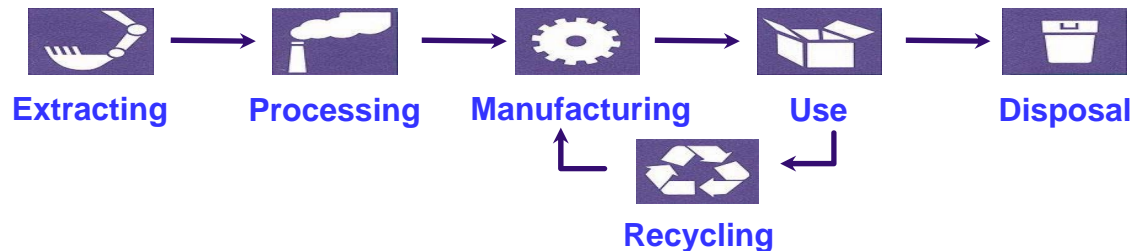
- Waste quantities continue to grow – slowly but steadily
 - Total disposal: 2000 - 23,168,870 tonnes; 2004 - 25,291,015 tonnes
 - Per capita disposal: 2000 – 752 kg/capita; 2004 – 791kg/capita (Statistics Canada data February 2007)
- Concerns about hazardous and toxic wastes
 - E-waste – Estimated 160,000 tonnes of e-waste in 2002 included: 5500 tonnes of lead, 6 tonnes of mercury, and 4.5tonnes of cadmium
 - Batteries – Estimated batteries discarded in 2004 contained: 766 tonnes of lead, 0.4 tonnes of mercury, and 235 tonnes of cadmium
- Continuing need to address problematic wastes, avoid disposal and manage residuals in an environmentally sound manner
- Lack of accounting for full life cycle product costs, especially end of life costs
- Lack of incentives for product environmental design



EPR DEFINED

- Extended Producer Responsibility
 - *an environmental policy approach in which a producer's responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product's life cycle (OECD, 2001)*

Life Cycle Flow Diagram



THE EVOLUTION OF THE EPR APPROACH IN CANADA

- Canadian origins in the National Packaging Protocol (1989 – 2000) under Canadian Council of Ministers of the Environment (CCME)
 - Packaging Stewardship Principles - 1996 shared responsibility model
- 1991 German Packaging Ordinance – DSD “Green Dot” system –first use of EPR approach – considerable Canadian interest
- OECD EPR Work Program – culminated in 2001 with *EPR Guidance Manual for Governments* – Environment Canada hosted first workshop in 1997
- Since DSD progressive expansion of EPR beyond packaging – batteries, electronics, refrigerants, tires, appliances, used crankcase oil ...
- Producer responsibility first legislated in Canada with B.C. paint program in 1994
- Environment Canada stewardship and EPR inventory documents almost 50 programs (www.ec.gc.ca/epr)



EPR BENEFITS

- Supports waste reduction, reuse and recycling
- Supports the polluter pays principle
- Addresses orphan products and historic product legacies
- A product focused approach that may be more efficient than substance- specific risk management approaches
- Provides a non-tax funding mechanism
- Can promote design for the environment e.g. reduced use of toxic substances, recyclability, use of recycled materials, ease of disassembly
- Funds can be dedicated to the program
- Industry producer responsibility programs can be structured with incentives to operate efficient, cost effective programs



CANADIAN GOVERNMENTAL ROLES AND RESPONSIBILITIES

- Federal authority
 - Export/Import Hazardous Waste and Hazardous Recyclables Regulations
 - Canadian Environmental Protection Act (CEPA) 1999 - Schedule 1 toxic substances – i.e. Hg, Pb, Cd, PDBEs
 - Chemicals Management Plan - screening and identification of priority substances (could impact substances in products such as electronics)
 - authority to mandate EPR – under consideration as a risk management tool
 - international engagement – Basel, OECD, UNEP etc
- Provincial waste management authority
 - certification of disposal facilities
 - regulation of non-hazardous wastes, hazardous waste facilities and movement
 - EPR used as a waste management tool – level playing field regulations
- Municipalities
 - operation of waste collection, disposal and recycling programs – control access to municipal disposal facilities
 - special waste programs – may accept electronics
 - major role in communicating with the public



EPR AND THE CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA)

- EPR is an environmental and health risk management option under CEPA 1999
- CEPA section 93 could mandate EPR for Schedule 1 toxic substances, or products that contain toxic substances, by stating that producers and importers must assume responsibility for environmentally sound management (ESM) of the product at end of life
- Could specify affected producers and products
- Could impose supporting measures such as limits for designated substances
- Could be used to manage multi-pollutant products and substances which cross product groupings and sectors
- Environment Canada's risk management strategy for mercury containing products (December 2006) identifies EPR as a risk management tool under consideration for end of life management.



CCME EPR TASK GROUP

- Canadian Council of Ministers of the Environment (CCME) (www.ccme.ca) EPR Task Group – established in 2005 with mandate to:
 - Identify opportunities to harmonize, make consistent where appropriate, expand, and improve EPR programs
 - Develop general guidance on EPR issues
 - Identify and explore opportunities to forge strategies for new EPR initiatives
 - Facilitate EPR communications and information exchange among jurisdictions
- EPR Task Group work program
 - Canada-wide principles for EPR published
 - EPR Evaluation Matrix – tool to help determine EPR applicability to product groupings and to set priorities for application to product groupings
 - “Free Rider” report published
 - EPR Performance Measurement and Reporting Guidance Document – prepared by Environment Canada
 - Canada-wide EPR action plan – national EPR policy and framework being prepared



CANADA-WIDE PRINCIPLES FOR EPR

- Developed and approved by the CCME to promote harmonization of approaches and to help provide a level playing field for application of EPR
 - Programs seek to reduce product environmental impacts
 - Consistency with the waste management 4Rs hierarchy
 - *Programs encourage producers to incorporate environmental design*
 - *Programs transfer responsibility to producers from municipalities*
 - Programs undergo comprehensive analysis to determine EPR's applicability
 - Instruments are flexible and determined on a case by case basis
 - Local governments and stakeholders help determine goals, performance etc.
 - Development and implementation is based on transparency
 - Environmental benefits are maximized and economic dislocations minimized
 - Communications inform product chain participants, and consumers
 - Programs undergo periodic evaluations
 - *Costs are not borne by general taxpayers*
 - Consumers have reasonable access, without charge, to collection systems



CANADIAN STEWARDSHIP AND EPR PROGRAMS

- Large number of provincial, regional and national programs – continued growth in use of the instrument
- Variations in degrees of producer responsibility and level of direct government involvement
- Mix of voluntary, and mandatory approaches; the majority are regulated
- Most programs are regulated at the provincial level
- CCME is active in the area – EPR Task Group
- Environment Canada role in advancing thinking about EPR through guidance documents, program inventory, bi-annual national workshops
- EPR could be mandated by Environment Canada for toxic substances and products containing toxic substances under the *Canadian Environmental Protection Act (CEPA), 1999, Section 93*



STEWARDSHIP AND EPR PROGRAM MODELS

Degrees of producer responsibility

- Quasi government – delegated agency
- Shared responsibility – industry and municipalities
- Industry “Light”
- Industry “Premium”



DELEGATED AGENCY/BOARD QUASI GOVERNMENT

- Delegation to a quasi-government agency which directs program
- Agency/board can include a variety of stakeholders
- Industry can play an advisory role but has no direct responsibility for program funding or operation
- Advanced disposal fees/levies sometimes set by government regulation
- Dedicated funds
- EXAMPLE: Alberta Recycling Management Authority (AMRA) which operates the Alberta electronics and tire recycling programs
- KEY ELEMENTS/ISSUES
 - no direct connection between producers and end of life management of their products – weak or non-existent producer responsibility
 - changing and setting regulated fees can be difficult
 - commonly no municipal role – option of municipality offering its collection system for a fee paid by the agency



SHARED RESPONSIBILITY

- Operational responsibility and funding shared between industry and municipalities
- Industry can be apportioned part of the total system cost of a stewardship/recycling program
- Industry can be assigned responsibility for part of the operational system
- Often used to share and offset costs of existing programs – avoids replacing one system with another
- EXAMPLE: Packaging - Ontario Blue Box; Eco-Entreprises Quebec
- KEY ELEMENTS/ISSUES
 - degree of producer responsibility and influence limited to proportionate system responsibility
 - requires a high degree of trust between partners
 - large data requirements to establish legitimate costs
 - municipalities commonly fund and operate collection - public perception that municipalities are still 100% responsible



INDUSTRY “LIGHT”

- Industry is given legal mandate to operate a producer responsibility program
- Industry has control over key elements - funding mechanism, recycling, promotion
- Government retains control over some key issues
- EXAMPLE: Saskatchewan Waste Electronic Equipment Program (SWEEP) was directed by the province to negotiate exclusively with SARCAN for the operation of the collection system
- KEY ELEMENTS/ISSUES
 - government has the opportunity to meet other agendas through the EPR program
 - industry’s ability to negotiate operational issues and program costs may be constrained
 - start up can be delayed when prescriptive directions compromise full producer responsibility
 - municipalities can negotiate industry access to municipal collection systems



INDUSTRY “PREMIUM”

- Industry is given broad legal mandate for all program elements
- Industry has full responsibility to fund and operate the program from collection through to end of life management
- Industry sets fees, determines collection mechanism, promotes program, contracts for recycling etc.
- Government provides high level policy direction, sets targets and determines reporting protocol
- EXAMPLE: British Columbia e-waste program
- KEY ELEMENTS/ISSUES
 - needs rigorous performance measurement and reporting
 - can provide a framework for DfE incentives
 - industry decides whether there a municipal role – municipalities negotiate to provide their services



HAZARDOUS AND SPECIAL WASTE PROGRAMS



- Used or Expired Medication



- Used Tires



- Used Oil, Containers and Filters



- Used Oil Only



- Used Electronics



- Used Paint, Stains and Varnishes



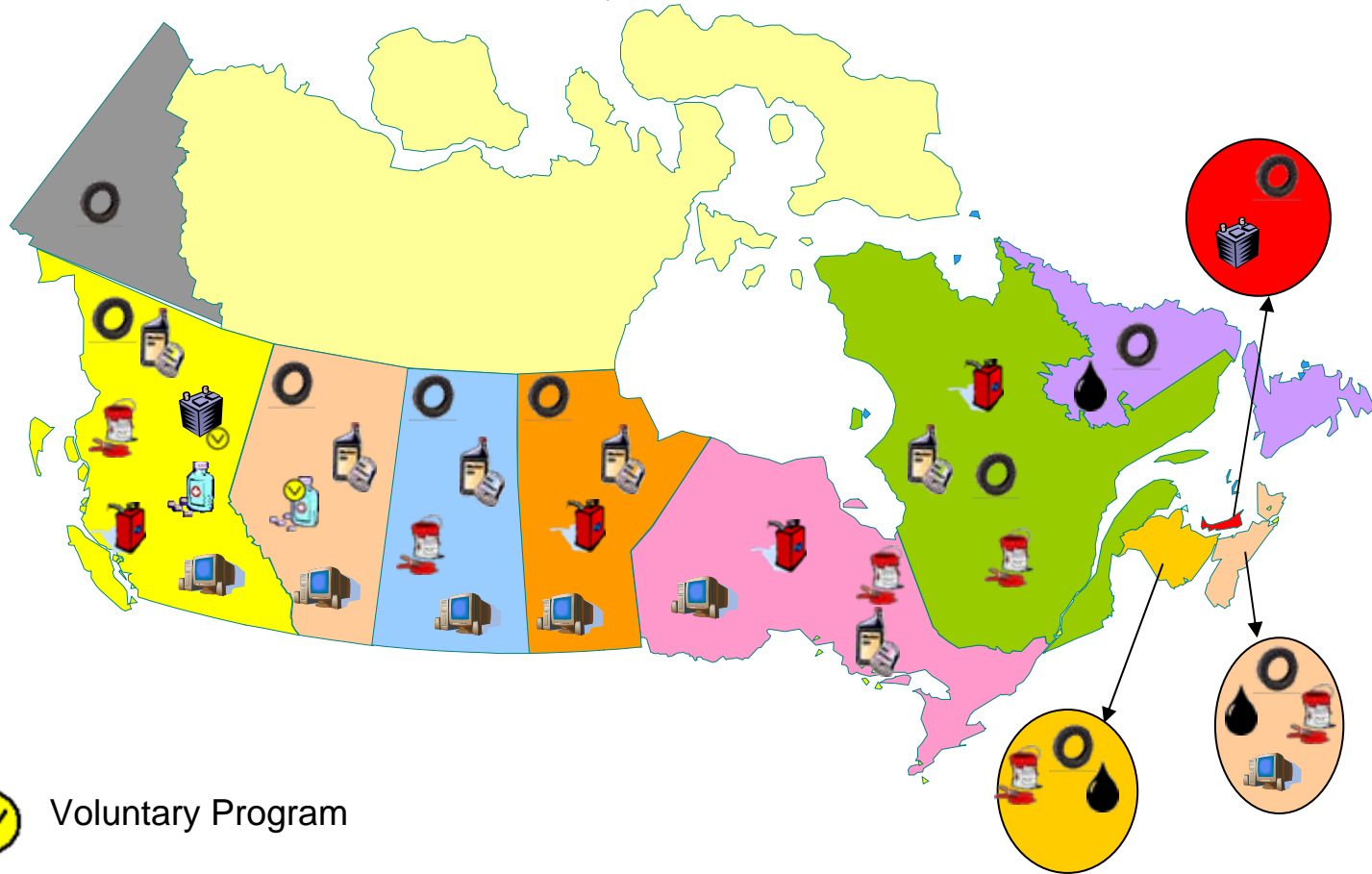
- Spent Lead Acid Batteries



- Used Solvents/Flammable Liquids, Gasoline, Pesticides, etc.



HAZARDOUS AND SPECIAL WASTE PROGRAMS





ALBERTA USED OIL MANAGEMENT ASSOCIATION

- Began with a 3 year pilot program and then regulated by the province in September 1997 – comparable programs now operate in BC, Saskatchewan and Manitoba
- Membership in AUOMA is mandatory and is made up of wholesalers and first sellers of lubricating oil products
- AUOMA is responsible for all management and funding of the program
- A visible Environmental Handling Charge (EHC) is collected on the sale of oil, oil filters and oil containers:
 - Lubricating oil is \$0.05 per litre.
 - Oil containers is \$0.05 per litre (container size up to 50 litres)
 - Oil filters is \$0.50 per filter under 203 mm (or 8 inches) in length, and \$1.00 per filter equal or greater than 203 mm (or 8 inches) in length.
- 753 collection depots – collection and transportation incentives
- No regulated recovery target but province encourages goal of 85%
- Consistently high rates of recovery – 83.7 m litres, 80.1% of used oil available for collection in 2006



ÉCO PEINTURE QUEBEC



éco-peinture

- Originally started in 1998 as a voluntary program for paint and paint containers
- Mandatory program started April 2001 and managed and funded by the paint industry in response to Quebec's *Environmental Quality Act*
- Membership in the program is made up of paint manufacturers and brand owners operating and selling paint in Quebec.
- Éco-Peinture finances program through a fee of 25 cents per paint container - the fee is included in the price of paint and is not visible to the consumer
- Collection system shared by municipalities (about 65%) and retailers (about 35%)
- Regulated target of 75% recovery of available waste paint (estimated to be 7% of total volume sold) and 100% of recovered containers recycled
- April 2001 – December 2005 13,000 tonnes collected

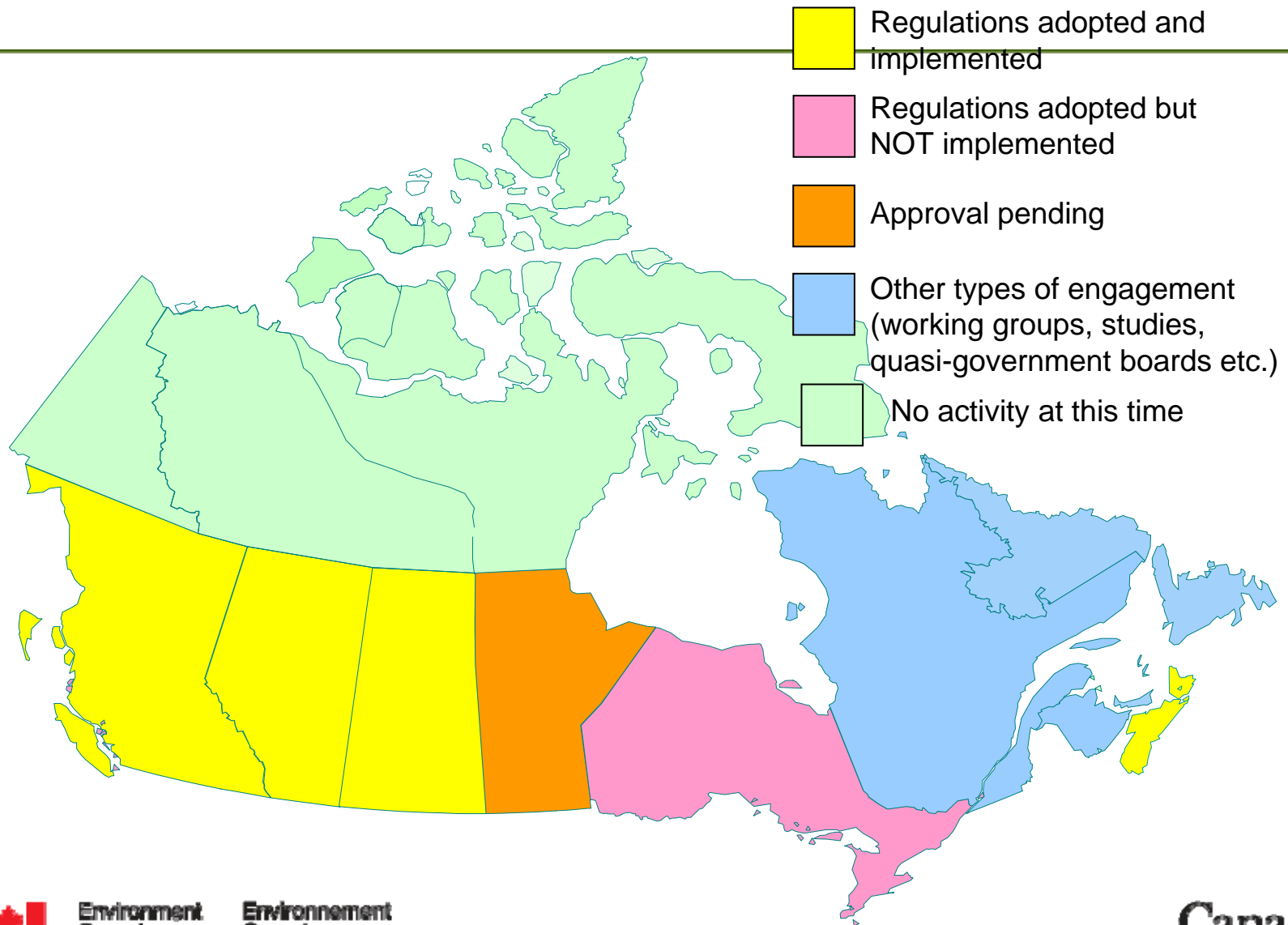







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ELECTRONICS PROGRAMS



-  Regulations adopted and implemented
-  Regulations adopted but NOT implemented
-  Approval pending
-  Other types of engagement (working groups, studies, quasi-government boards etc.)
-  No activity at this time

EEE – ALBERTA, BC, SASKATCHEWAN AND NOVA SCOTIA



- All programs except Alberta operate on an EPR model (Alberta run by a quasi-government agency, ARMA)
- All operate with visible point of purchase fees
- B.C. is in the unique situation of having two stewardship plans – one operated by major brand owners, the other by small retailers/white box manufacturers
- All programs use Electronic Product Stewardship Canada vendor qualification guidelines for vetting processors
- All use return to depot mechanisms – usually not municipal infrastructure



MAJOR ISSUES AND CHALLENGES

- Determining the municipal role
 - Building the necessary infrastructure for collection and processing
 - Moving beyond collection and recycling
 - Stimulating toxics reduction and environmental design
 - Promoting waste minimization
 - Encouraging reuse and refurbishment
 - Visible or invisible/internalized fees and levies
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- National consistency and harmonization
 - Creation of level playing fields and avoiding free riders
 - Determining products to be covered by EPR regulations
 - Establishing performance requirements – setting recovery rates, targets
 - Establishing environmentally sound management standards for recycling and end of life management
 - Streamlining and simplifying regulations and program implementation



THE MUNICIPAL ROLE IN EPR

- Municipalities have played a major role in promoting the idea of EPR
- Municipalities often ill equipped, financially or operationally, to manage special wastes (which are often well suited to an EPR approach)
- In general municipalities do not participate directly in EPR program collection systems
- Shared responsibility model for packaging in Ontario and Quebec – municipalities responsible for funding and operation of collection
- Municipalities can be a service provider – industry producer responsibility organizations can and do contract with municipalities for access to depots etc.
- Ontario MHSW program – municipalities can opt into the program but can also leave collection responsibility to industry
- Key questions:
 - Why would a municipality want to pay for and play a role in an EPR program?
 - Why shouldn't industry be fully responsible?



EPR AND WASTE MINIMIZATION AND ENVIRONMENTAL DESIGN

- EPR was originally promoted by the OECD and others as a means to minimize wastes and encourage better product design for the environment
- In Canada EPR has been successful in diverting materials and products from disposal and in shifting costs from taxpayers to consumers and producers
- EPR does not appear to have been successful yet in reducing wastes at the source or in improving environmental design
- This partly because many of the products subject to EPR programs have limited design for environment opportunities (e.g. oil, paint, tires)
- Regulations/fees/incentives at a provincial level may not have much influence on product or packaging design by national or multi-national brand owners
- 2006 Ontario survey of Blue Box stewards
 - Only 5% said fees had high degree of influence on packaging decision;
 - 58% said little of no influence
 - Some evidence that differential material fees have influenced companies operating solely in the jurisdiction e.g. local dairies



EPR: ENVIRONMENTAL INCENTIVES WITHIN INDUSTRY ORGANIZATIONS

- How do you reward and provide incentives for better environmental performance within an EPR Producer Responsibility Organization (PRO)?
- The problem of differentiating environmental performance within common compliance schemes
- In Canada producers are obligated to file and act on an EPR stewardship plan – most choose to join a common compliance scheme rather than “go it alone”
 - Costs to manage the stewardship obligation individually are likely more than the costs of joining the common compliance scheme
- Ontario and Quebec packaging programs have fees set according to material recycling costs
- To encourage environmental performance fees need to be:
 - Linked to material/product specific costs
 - Adjusted to reflect material efficiencies
 - Shifted to achieve program objectives
- Differential visible fees based on environmental performance could give a signal of better environmental performance to consumers



VISIBLE OR NON-VISIBLE FEES

- Visible advanced disposal fees which are commonly used to support EPR program funding in Canada can be passed through directly to consumers and do not become imbedded in the producer's cost structure
- To give waste minimization and environmental design signals to producers it is necessary to:
 - Build end of life costs into the product price and treat as a cost of doing business (similar to production, distribution, marketing etc.) – no visible fees
 - Support EPR with other product focused instruments such as regulated material standards, eco-labelling, and green procurement
- By actually approving a stewardship plan a regulatory authority can appear to indirectly accept some responsibility for the financial mechanism
- Visible EPR fees can be seen by the public as type of tax – communications become a critical issue
- Fees, whether visible or not, must be linked to the service provided (Eurig decision)



PRECEDENTS FOR VISIBLE AND NON-VISIBLE FEES

- Canada
 - Most programs have visible fees at point of purchase
 - No visible fees with Ontario or Quebec packaging programs – small unit costs
 - Eco-Peinture in Quebec is one of the notable exceptions with no visible fee
- Europe WEEE
 - A variety of approaches depending on country and compliance scheme
 - Netherlands WEEE program – NVMP (TVs and consumer electronics) operates with a visible fee on some products; ICTMilieu (IT equipment) has no visible fee
- US
 - Tires, oil and lead acid batteries commonly use an advanced disposal fee
 - WEEE – most States have no visible fee
 - Paint pilot program – proposal for no visible fee
- Japan
 - PC's – no fee if marked with “PC Recycling”; disposal fee charged with all others



CONCLUSIONS: AFTER A DECADE OF PRACTICE WHAT HAVE WE LEARNED?

- EPR is a well established policy instrument in Canada
- Producer responsibility programs have proven successful in recovering and managing problematic wastes
- EPR guarantees dedicated program funding
- EPR successfully shifts costs from tax payers to consumers and producers
- Governments have a key role in levelling the playing field and setting performance measures and targets
- Most Canadian programs have focused to date on recovery and recycling and not on improved product environmental performance
- Visible levies at point of purchase (the most common mechanism) do not provide a strong incentive for improving environmental product design
- EPR should be considered as one tool among other product focused instruments designed to ensure that broader environmental objectives are met



WHERE IS EPR HEADED IN CANADA?

- Current program emphasis on electronics will continue until all provinces have a basic program – PC's, printers and TV's – Nova Scotia leading the way on phase two electronics products
- Next major area likely to be household hazardous/special wastes – solvents, cleaners, batteries etc. – Ontario, and Manitoba are leading the way
- Moves towards omnibus regulations which allow designation of products for EPR – BC Recycling Regulation; planned approach in Quebec
- Increasing harmonization of product programs – e.g. used oil and container programs, emerging in electronics programs
- Increased emphasis on design for the environment – search for tools other than EPR to drive this agenda
- Environment Canada could use EPR to manage end of life products with toxic substances



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