

The Redesign Revolution

A look at the impacts of extended producer responsibility

by Clarissa Morawski

The past decade has experienced an explosion of environmental “extended producer responsibility” (EPR) policy initiatives around the globe. EPR policy extends a producer’s responsibility for a product or its packaging to the post-con-

sumer stage. The two key features of environmental EPR are: the shifting of responsibility (physical and/or economic) upstream toward the producer and away from municipal authorities and the provision of incentives to producers to incorporate environmental considerations into the design of products.

Policy instruments to accomplish this include deposit-refund systems, take-back legislation, materials taxes, combined taxes/subsidies, so-called “advance disposal fees,” and recycled-content requirements.

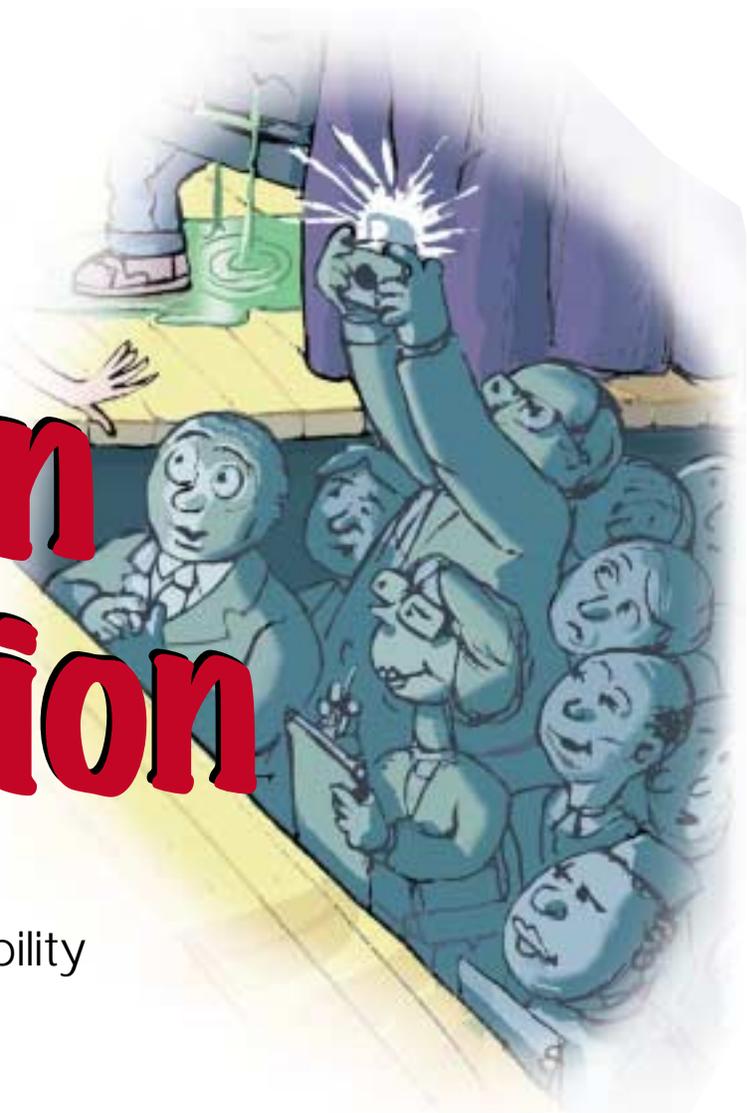
Currently, 30 countries have EPR laws for packaging; about 15 have battery take-back programs and nine require the recycling of electronics components. In Canada alone there about 36 different programs for beverage containers, tires, used oil, packaging, batteries,

paint, refrigerants, pesticide containers and other hazardous materials.

Concurrent with this global movement is the recent release of a publication from the Organization for Economic Co-operation and Development (OECD) entitled *Extended Producer Responsibility — A Guidance Manual for Governments*. The manual is rooted in basic EPR principles and may be the most definitive resource to date on the design of EPR programs and policies. Information was derived from a broad array of stakeholders. These included governments, the private sector, academia, citizens’ groups, legal and trade experts, international bodies and trade associations.

At least 15 European countries with full or partial EPR programs use industry levies to fund recycling/recovery programs for packaging. A key point in most levy schemes is that all producers of packaging fund the system.

Levy schemes are not simply based on a “fee for service” charge. Instead, they vary from country to country, with charges based on material type and size to more complex schedules using recycled content credits or an environmental index



based on the lifecycle of a material. (This may incorporate the variables of energy, water and resource consumption.) The incorporation of economic instruments into the levy scheme results in a system wherein difficult-to-recycle or environmentally less-friendly materials carry a higher fee. Such structures are an incentive to reduce and reuse, and also to shift to environmentally preferable material and procure recycled content.

In general, countries that maintain full producer responsibility have experienced increased recovery, source reduction and re-design of packaging. For example, Germany and Austria have full producer responsibility systems and have experienced growth in recovery that exceeds the rate of growth in waste. Countries like France and Spain have partial producer responsibility (e.g., municipalities pay for the bulk of the system); and they have experienced insufficient diversion in relation to the growth of waste generation.

In Germany, manufacturers have changed their packaging habits, producing

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lighter and smaller units and eliminating useless packaging. There is a great deal of refillable packaging on the market as well. The use of packaging has fallen by about 13.4 per cent (1.4 million tonnes) since the EPR program was implemented in 1991.

Re-design in action

Microsoft's Office 2001: MAC Software exemplifies green packaging re-design. It is a lightweight rounded jewel case weighing only 180 grams. The entire unit weighs one-tenth of the old one. The polystyrene acrylic case contains 50 per cent post-consumer resin from old water bottles and CD cases. The case is also reusable, containing five polypropylene sleeves that can hold 10 CDs. Transportation packaging used to ship the new case was reduced by 50 per cent, resulting in lower recycling costs for the company and reduced vehicle emissions.

The shift in design was in large part because of the growth of international packaging laws. As a result, the company

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Closing Ontario's EPR loophole

Ontario recently entered the EPR ring with its newly released draft *Waste Diversion Act — Bill 90*. Bill 90 serves as enabling legislation for the formation of a non-crown corporation — Waste Diversion Ontario (WDO) — made up of four municipal, one individual, eight industry voting members (and one non-voting public servant).

The Act makes WDO responsible to ensure the implementation of policies established by the environment ministry for designated wastes and blue box materials. WDO is to develop individual programs in co-operation with industry-funding organizations (IFOs), either existing or newly formed by the WDO. IFOs will also have the power to designate "stewards" (i.e., entities with a commercial connection to a designated waste), set fees payable by the stewards, exempt certain stewards, and inspect records and reports from stewards. Individual stewards that seek exemption from IFO-related fees may submit their own industry stewardship plan to the WDO. The plan must achieve objectives similar or better than the original program and must be approved by the environment minister. (See *Regulation Roundup in the August/September 2001 edition*.) It's likely that several industries currently operating successful independent programs in other Canadian jurisdictions (for materials such as tires and used oil) will submit such plans to the WDO.

While the legislation is vague about the requirements for diversion programs for designated wastes, it is very specific about how the blue box program will be managed under the new law.

First, with regard to municipal subsidies, Bill 90 states: "A waste diversion program developed under this Act for blue box waste shall not provide for payments to municipalities that total more than 50 per cent of the total net operating costs incurred by the municipalities in connection with the program."

This means anywhere from zero to 50 per cent of net operating costs — a funding commitment that falls far short of the recommendations presented by the Waste Diversion Organization (WDO's predecessor) of September 1, 2000. The report recommended sharing the net costs for municipal diversion programs. Specifically, "residential recycling" would be split 50/50 between industry and municipalities.

Second, it allows for an IFO to levy funds from companies to help pay municipalities. This financing model is common for packaging recovery in some parts of Europe, but the share of industry responsibility and financial contributions vary greatly. Adopting such a model in Ontario is not easy. Canada's Constitution only allows governments to tax. Revenue collected by a designated third party (in this case the designated IFO) is a levy, which must represent the cost of service. (As per the Eurig probate challenge of 1998.)

Because the new Act covers blue box waste only, non-blue box waste is not subject to levies. This means that non-recyclable material (i.e., packaging made from multi-layer composites, blister packs, bottles with nylon liners and PVC) are exempt. Ironically, this loophole will result in a financial incentive to shift to environmentally "unfriendly" or non-recyclable packaging.

Similarly, for those materials that are "recyclable" but are only collected in a few blue box programs due to high costs and limited markets (e.g., polystyrene, film plastic and tubs and lids) there will be little incentive for industry to develop the recycling market. It's another loophole — less collection for recycling means lower net costs and lower fees. Conceivably, the Act may create financial disincentives for market development for some materials.

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developed an "environmental packaging protocol" — a series of environmental considerations addressed during the design process of each packaging component. Consequently, it saves 13.5 U.S. cents/unit sold in Germany and incurs savings in other countries with packaging laws.

Pat Sullivan, senior project manager in the packaging engineering group of Microsoft's World-wide Operations Division says, "Microsoft has stepped out of the 'box' to simplify packaging, reduce

Closing the Loopholes

What can be done to fix an inherently defective *Waste Diversion Act*?

The first option is to eliminate the words "blue box waste" from the Act since this is already, by default, a "designated material." The minister can particularize the material in regulation and make friendly amendments as new materials arise and packaging evolves. It should also be noted that using "blue box" is somewhat outdated if it is meant to describe curbside collection programs province-wide. (Today there are grey boxes, depots, bags, wet/dry systems, and other methods of collection.)

Second, the government could substitute "waste diversion program" with "waste management program" to ensure that non-recyclable material and recyclable material sent for disposal can be levied as well. Third, eliminate the 50 per cent funding clause and instead allow the IFO to suggest its inclusion as a percentage of net disposal costs in its stewardship plan.

These three simple amendments would provide the government with flexibility to evolve regulations around changes in behaviour, material, packaging and technology trends. Also, the option for IFOs to levy for waste management instead of recycling only, will provide financial incentives for producers to include environmental considerations when selecting the material and design for their products.

For industry stakeholders with material currently collected in the box, this is a good deal. Industry's contribution will shift to those producers currently using "bad" packaging versus those using "good" packaging without loopholes.

Placing the financial obligation on those who make the wrong decisions around material usage and product and package design will ensure that the incentives to producers are maintained and that the primary objective of the Act, "to promote reduction, reuse and recycling of waste," can be attained.



Microsoft developed an environmental packaging protocol.

materials and become more environmentally friendly in our product packaging.”

Estee Lauder Companies (ELC), one of the world’s largest cosmetic companies, has established a “Packaging Design Protocol.” With over 15 separate brand names (including Aveda, Clinique, MAC, and Aramis), more than 50,000 active

stock keeping units (SKU) and 60 packaging developers, the company was faced with paying packaging fees in 21 countries and submitting more than 200 source reduction reports per year.

ELC’s new protocol established a process for considering environmental issues during packaging design. Essen-

tially, the protocol asks how the package will be recovered, if it can be source reduced, if the materials used are environmentally friendly, and what fees the package will incur.

The protocol includes a packaging database with information on material type, composition, recycled content, weights and volumes, labeling and essential requirements data. The company has succeeded in training its packaging designers and market professionals. From an environmental standpoint, ELC has eliminated carriers and lipstick liners, reduced PVC, and in

Germany, established a reusable distribution-packaging program.

For a link to the OECD manual, see www.solidwastemag.com. 

Clarissa Morawski is principal of CM Consulting, based in Toronto, Ontario.