



e-waste recycling a-okay in BC

by Karl Hourigan

Computers, printers, cell phones, TVs — one day, they're up-to-the-minute, and the next, or so it seems, they're obsolete. And then? They're electronic waste, or e-waste, the fastest growing segment of disposables in our landfills. Thanks to a new program in BC, though, used electronics are moving out of the garbage and into the recycling bin.

According to Natural Resources Canada, Canadians throw about 272,000 tonnes of computer equipment, phones, televisions, stereos, and small home appliances into landfills each year. These products contain toxic metals and other hazardous materials that, over time, build up in the environment.

Some materials in electronic products, however, can be recovered and re-used. E-waste recycling is already a reality in several provinces, including BC, where Encorp Pacific Canada has recovered and recycled about 9000 metric tonnes of e-waste in the past year. Encorp handles recycling for the [Electronics Stewardship Association of B.C.](#) (ESABC), which represents the majority of electronics producers selling computers, monitors, desktop printers, and TVs in the province.

The BC government, in 2007, decided to make e-waste recycling industry's responsibility, and approved stewardship programs by both the ESABC and the [Western Canada Computer Industry Association](#). The stewardship programs spell out industry strategies for diverting electronics from landfills by promoting re-use and collecting and recycling products at the end of their useful life. Other [stewardship programs in BC](#) cover tires, paint, oil, pharmaceuticals, beverage containers, solvents and flammable liquids, and gasoline and pesticides.

In the past, many countries dealt with e-waste by shipping it elsewhere. The *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, which was adopted in Basel, Switzerland in 1989 and took effect in 1992, has made a significant impact on reducing trade in hazardous wastes. Nonetheless, and despite Canada's participation in the Basel Convention, as recently as 2007 some Canadian e-waste was still being exported illegally. According to information released in February 2007 by the Recycling Council of BC (RCBC), since November 1st, 2005 Environment Canada's Enforcement Division has intercepted 22 shipping containers containing 380,000 kilograms of used CRT monitors, keyboards, and other e-waste from the Port of Vancouver.

"That waste contains toxic metals like lead, mercury, and cadmium, which can end up in surface and groundwater," notes BC's Environment Minister, Barry Penner. "Because those materials are valuable and reusable, old electronics are often illegally exported for salvage to developing countries with very poor labour practices." It has been well documented by organizations such as BAN ([Basel Action Network](#)) that worker safety, child protection, and environmental standards are non-existent or not enforced in many of the places where this e-waste ends up.



Women pick through wires torn out of computers. The wires are sorted by day and burned by night in this village. The families live right in the burnyards. Cancer-causing polycyclic aromatic hydrocarbons and dioxins result from burning wires made from PVC and brominated flame retardants. Guiyu, China. December 2001. © Basel Action Network

Compounding the problem is the challenge of enforcing the rules that apply to manufacturers. A recent report by the [Globe Foundation of Canada](#) notes that the US Environmental Protection Agency has been found unwilling to stop e-waste exports. "Congressional investigators found that the agency did not even have a plan or timetable to enforce the laws."

The report, on [Globe-Net.ca](#), suggests that manufacturers and governments are on the right track when it comes to dealing with electronic waste, but that they need to act fast. "The world's endless appetite for consumer goods cannot go on forever without harming the planet irrevocably."

In Canada, as e-waste recycling facilities open to serve programs in BC and other provinces, exporting e-waste may no longer be seen as a financially attractive option.

Alberta started Canada's first electronics recycling program in October 2004. Since then, the [Alberta Recycling Management Authority](#) reports more than 17,000 metric tonnes of electronic waste have been diverted from landfills, including more than 300,000 computers, 170,000 printers, 360,000 monitors, and 155,000 TVs. Albertans are recycling, on average, more than 6,000 TVs and 11,000 computers every month.

Nationally, [Electronics Product Stewardship Canada](#) (EPS Canada) is a not-for-profit organization founded by 16 leading electronics manufacturers. In 2003, EPS Canada led a delegation to visit Europe's leading electronics stewardship programs. Here's what Canada learned from the European experience:

- a national program is essential for long-term success;
- collecting e-waste from households must be convenient and free to householders to maximize participation;
- returning discarded electronics to retailers will only account for about 15 percent of waste collected;
- collecting waste from individual municipalities seems less cost-effective than using regional consolidation sites;
- stewardship programs in countries with relatively small populations and minimal R&D activities should not attempt to use waste management programs to influence design for the environment (that is, influencing manufacturers to reduce the use of toxic materials going into products in the first place, and designing for easier recycling at end-of-life);
- communication with all stakeholders is vital to succeed and requires substantial investment;
- consumers have not objected to environmental fees; and
- all options should be carefully reviewed before implementation.

Much of this experience is reflected in the new BC plan. E-waste can be returned at no charge to consumers, but an environmental handling fee applies to new purchases. The BC Ministry of the Environment's position is that stewardship program funding is the responsibility of the producer, as a cost of doing business. Product management costs are to be borne by producers and consumers, not local governments or the general taxpayer.

The following fees are now charged on the sale of new electronics products in BC:

- desktop computers \$10 (including accessories)
- computer monitors \$12

Fighting Affluenza



Newer cars, bigger houses, faster computers. We're hooked on stuff. And we consume more stuff than any generation before us. Call it "affluenza:" rampant materialism, excessive consumerism, and a tendency to equate happiness with the possession of material goods.

Relief from affluenza calls for a change in behaviour. But changing how people live isn't as easy as distributing brochures. Community-based social marketing (CBSM), on the other hand, gets results. The CBSM approach involves: identifying barriers to a sustainable behaviour, designing a strategy that uses behaviour change tools, piloting the strategy with a small segment of a community, and finally, evaluating the impact of the program once it has been implemented across a community.

The Fresh Outlook Foundation uses skilled and passionate facilitators armed with proven CBSM strategies to educate British Columbians about sustainability. For more information visit www.freshoutlookfoundation.org.

- notebook computers \$5
- desktop printers and fax machines \$8
- televisions \$15 - \$45 (depending on size).

If its program is successful, the [Recycling Council of BC](#) expects to see a 75 percent return rate of qualifying obsolete e-waste. At this time, the e-waste program in BC does not include products like calculators or cell phones, although discarded cell phones can be returned to a number of locations, including [Techno Trash Recycling](#).

The ABCs of E-Waste

ADF: Advanced Disposal Fee, added to purchases of new electronics to pay for its ultimate disposal, also may be called an environmental handling fee.

Affluenza: a cultural malady manifested as unnecessary and unsustainable consumerism, and the associated stress of measuring personal worth by financial success and material possessions.

Cradle-to-cradle: instead of cradle-to-grave products, dumped in landfills at their end of life, cradle-to-cradle products are designed to have their materials perpetually circulated (recycled and reused) in closed loops.

CSR: corporate social responsibility describes a trend in business to take responsibility for the impact of their activities beyond their immediate customers to society at large, and is increasingly seen as a vital practice to protect future profitability.

EoL: end-of-life, when a product is no longer supported by the manufacturer, no longer usable, or being discarded by the end-user.

EPR: extended producer responsibility, making producers more accountable for what happens to their products beyond the initial sale, over the products' entire life cycle. EPR shifts responsibility for waste from government to private industry.

E-waste: electronic waste, such as discarded computers, printers, etc.

Karl Hourigan is professional writer who lives in Kelowna and is passionate about sustainability. Since setting up his home office, he's cut down his commuting time dramatically.