



Institut Carlisle Institute

Commentary



Shared Responsibility Papers

Electronic Waste Management Programs in New Brunswick: Industry and Government Acting in Concert

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Executive Summary

Technological innovation is transforming the consumer electronics industry. From a waste management perspective, the dramatic shortening of the innovation-driven product life cycle of advanced electronics has meant that even sophisticated products have tended to become obsolete much more quickly than their traditional counterparts. Electronic waste management has become a formidable challenge.

In New Brunswick, an important element of this challenge is the existing and proposed environmental handling fees (EHFs) associated with the recycling of electronic waste. The extended producer responsibility (EPR) model is at the center of programs that have been established or are in the process of being established to facilitate the recycling and end-of-life management of electronic products.

Industry already has an effective, efficient and accountable infrastructure in place and has a proven track record in managing electronic waste recycling programs. The industry's approach has resulted in substantial material recovery benefits to the public. Duplicating the management infrastructure that industry already has in place is a waste of scarce public funds. Government should take advantage of this infrastructure and avoid expending public funds to duplicate what is already working.

There is significant evidence that under a hidden fee regime, consumers will pay more for the recycling program compared to other jurisdictions, but with no increase in program funding or performance. In addition, the visibility of environmental handling fees sends a clear signal at the point of purchase to consumers that there are environmental and financial costs associated with recycling or end-of-life management.

The Carlisle Institute makes two recommendations to the New Brunswick government. First, the Carlisle Institute recommends that the accountability for stewardship plans and the funding mechanisms within them should rest primarily with producers, manufacturers & retailers. However, government should be part of a shared responsibility model in partnership with industry where government's appropriate involvement should be to develop a non-prescriptive regulation that establishes a level playing field and deals effectively with the enforcement of offenders.

Second, the Carlisle Institute recommends to the New Brunswick government that environmental handling fees be made transparent and visible to the consumer at the point of purchase so that they can be knowledgeable partners in the stewardship process and better understand their role and their relationship with other stakeholders.

Consumers are demanding greater transparency and accountability from both industry and government in New Brunswick. To reflect this demand, environmental stewardship should embody a shared responsibility model involving informed consumer decision-making, clear corporate accountability; the appropriate distribution of responsibility to address the problems of environmental stewardship clearly is in the public interest.

Introduction

The world of 2020 will be a very different place to do business than the world of today. As a consequence of economic liberalization, capital market developments, technological advances and demographic shifts, the world is witnessing a wholesale realignment of economic activity. One of the key challenges of the rapidly changing global economy is the need to establish the appropriate roles of government and industry in setting and managing regulations to secure stewardship over the environment.

An important example of this challenge refers to existing and proposed environmental handling fees (EHFs) associated with the recycling of electronic waste in provinces across Canada. The extended producer responsibility (EPR) model is at the center of the programs that have been established or are in the process of being established to facilitate the recycling and end-of-life management of electronic products such as televisions, computers and other electronic products. This is the focus of what industry calls accountable environmental stewardship.

From a waste management perspective, changes in technology and the innovation driven cycle of advanced electronics has meant that even sophisticated electronic products become outdated more quickly than at any time in history and can find their way into the waste stream after only a few years from their original purchase date. Clearly, electronic waste management has become a formidable challenge.

The context

Ongoing technological innovation is transforming the consumer electronics industry. The last three decades have witnessed the emergence of a new and rapidly growing source of waste generated from electronic equipment. Advanced electronic products have become ubiquitous in many Canadian households. In addition, innovation has also increasingly been responsible for the shift in product development from such technologies as previous-generation cathode ray tube (CRT) televisions to LCD and plasma-based technologies and it has led to the incorporation of microprocessors and complex electronics in a host of household products.

The issues in New Brunswick

The New Brunswick government has proposed that it should have direct responsibility for and authority over environmental stewardship program management. This raises two fundamental questions. First, is government the most effective, efficient and accountable organization to ensure optimal recycling program management and operations? And second, would government operating in partnership with industry deliver better results?

The New Brunswick government has further proposed that the environmental handling fees that underpin the financing of environmental recycling programs be included in the product price hidden from consumers at point of sale. This raises a third important question. Does concealing environmental handling fees confer significant advantages to consumers or industry in attaining program benefits?

The Industry Approach

Whether government is the appropriate player to directly manage environmental stewardship programs depends in large part on an evaluation of the role of industry and what credibility it has established. There are substantial challenges involved in managing effective recycling programs. These challenges include the high startup costs associated with developing the necessary infrastructure and operating efficient collection depots. An additional challenge to effective recycling management is the high costs associated with communications to change consumer behaviour and recycling in an environmentally responsible manner.

There is substantial evidence that industry has made a commitment to the responsible recycling of electronic waste. Industry saw the need for proper management of electronics at the recycling stage and recognized that a standard was needed to ensure an equal level of service from all recyclers. Some electronic products enter Canada from manufacturers that have no Canadian presence and a substantial number of end-of-life electronics have no operating brand owner. *Electronic Product Stewardship Canada (EPSC)* created the *Recycling Vendor Qualification Program (RVQP)*. Audit requirements, enhanced environmental and occupational health and safety provisions in conjunction with reinforcing the downstream accountability of waste and prohibit shipping waste electronic materials to non-OECD nations.

Industry structure

There is also evidence that industry, in partnership with government, already has an effective, efficient and accountable infrastructure in place. In order to most effectively achieve the environmental stewardship objectives set out by their members, *Atlantic Canada Electronics Stewardship (ACES)*, the *Electronics Stewardship Association of British Columbia (ESABC)* and the *Saskatchewan Waste Electronic Equipment Program (SWEEP)* were formed. These organizations are regulated, industry-led, not-for-profit entities providing environmental compliance to more than 3,000 manufacturers, producers, retailers and distributors of regulated electronic products in Nova Scotia, Prince Edward Island, British Columbia and Saskatchewan.¹

The industry's approach and provisions under the *Recycler Qualification Program*² have resulted in substantial material recovery benefits to the public. The implications of this approach are not only lessened environmental impacts by recycling instead of sourcing virgin materials but include cost savings to New Brunswick taxpayers by saving valuable landfill space to which waste electronics will not contribute.

¹ See their respective websites: ACES (www.acestewardship.ca), ESABC (www.esabc.ca), SWEEP (www.sweepit.ca).

² "Recycler Qualification Program for End-of-Life Electronics Recycling," Electronics Product Stewardship Canada, (October 27, 2010). www.estewardship.ca/docs/Recycler%20Qualification%20Program%20FINAL%2010.10.27.pdf

These programs are responsible for the management of more than 500 collection depots, providing residents, businesses and other entities in these provinces with a convenient and innovative solution for electronic waste management. The programs are themselves registered not-for-profit entities, incorporated under their local province's *Societies Act*.

Together, these current programs have jointly diverted and recycled more than 40,000 metric tonnes of obligated electronic waste. Their efforts have been responsible for the prevention of a substantial amount of material diverted from landfills and the illegal export of electronic waste. The EPSC *Recycling Vendor Qualification Program* has become the standard for responsible recycling and has been a critical component of the success of environmental stewardship objectives.³

There exists substantial evidence that Industry-led EPR stewardship programs currently are well managed and responsive to the policy goals and objectives set out by government. Industry has a proven track record in managing EPR stewardship programs and duplicating the management infrastructure that industry already has in place is a waste of scarce public funds. Government should take advantage of this existing infrastructure and avoid the expenditure of public funds to duplicate what is already working.

Government partnering with industry

The Carlisle Institute does not believe that government should be cut out of the process. The appropriate role of government is collaborating with industry in a shared responsibility model. Industry and citizens need the government's key involvement to partner in the development of non-prescriptive regulations that establishes a level playing field and deals effectively with the enforcement of offenders.

Electronic Handling Fees Visibility

Apart from who should manage, administer and fund electronic stewardship programs, the other key issue revolves around whether electronic handling fees should be transparent to consumers at point of sale or whether these fees should be hidden. One of the most compelling features of visible EHF pricing mechanisms is the positive influence on consumers' waste diversion behaviour. The implementation of visible EHF pricing encourages consumers to modify their waste generation habits to recycle more responsibly. And there is evidence that visible fee pricing may reduce the amount disposed to a level that is economically advantageous to them.

Transparency of program costs

It is critical that recycling program funding be achieved in a clear and transparent manner that promotes the education of consumers about the environmental costs of their purchases. Program funding should also address the complexity of the electronics supply chain while respecting the need to manage all brands and orphaned products. The most effective program funding approach will allow for the

³ In interviews with analysts with the Global Footprint Network, (www.footprintnetwork.org) an internationally recognized sustainability think tank, the EPSC's Recycling Vendor Qualification Program was lauded as a "significant step forward" in electronic waste management, April, 2011

provision of market incentives for companies to increase their own take-back programs through participation in a universal program where flexible management of the EHF would accommodate the needs of small, large, regional and national companies.

If EHF on a product or package reflect the true cost of managing that end-of-life product, the consumer possesses a greater ability to make sustainable purchasing decisions. Consumers increasingly are demanding more information not only about the total cost, but also about the cost structure of products and services in every industry. Consumers expect transparency with respect to those products that in their view will have an impact on the environment. Increasingly there is less public tolerance for the perspective that elements of cost structures need to be hidden. For consumers, taxpayers and the public to be able to make judgements about how their money is spent, they need to have access to the information and knowledge that underpins reasonable decision making.

Hidden vs. visible fees

Proponents of hidden EHF in posted product prices oppose fee separation on a number of grounds. They argue that EHF visibility sends inadequate signals or pressure to industry to internalize product end-of-life costs. The argument goes further that, because those costs cascade to the consumer at the point of purchase, EHF visibility fosters less motivation in industry to improve the environmental performance of their products.⁴

The advocates of hidden fee pricing claim that concealed fees would decrease the amount of eco waste in the environment. But no credible evidence has been mounted that concealed fees would result in reducing the amount of waste by producers. Manufacturers of electronic products, almost all of which have their engineering and development facilities outside of Canada, are unlikely to design their products to respond to EHF pricing strategies. The Canadian industry is comprised largely of distributors and retailers, which have little influence over the characteristics of the product portfolio of manufacturers. It is more likely that manufacturers will change the design and performance of their products as a consequence of response to customer demand and regulatory standards in their largest markets.

The Issue of Cost to the Consumer

The argument that hidden fees represent the best option from an environmental stewardship perspective fails to take into account that, under a hidden fee regime, consumers will pay more for the recycling program compared to other jurisdictions, but with no increase in program funding or performance. Neither producers nor retailers can be expected to assume the multiplier costs associated with these increases and the likelihood that consumers will bear these costs indirectly is high.

⁴ For an example of these views, see: "Policy Forum: Should Extended Producer Responsibility Programs Use Eco-Fee-Included Pricing?" Duncan R.W. Bury, Canadian Tax Journal (2010) vol. 58, no 4, 927 - 50

The impact of hidden fees across the supply chain

Hidden EHF's will have an inflationary impact across the supply chain resulting in increased costs for consumers. The New Brunswick government believes they have resolved this problem by allowing the EHF to be visible through the supply chain up to the point of sale. But cost increases are not simply a function of the environmental handling fee. Since most supply chain fees are based on such variables as product cost, weight, cube and handling requirements, adding the fee upstream in the supply chain will inflate cost as a multiplier throughout the supply chain. Some larger retailers operate across the country where advertising planning frequently involves national advertising campaigns. Hidden fees will increase costs of advertising for those larger retailers who must produce separate advertising runs with province-specific pricing. Online sales are also seriously affected as entire websites will need to be re-designed to direct New Brunswick residents to web pages featuring separate pricing. These price increases are more likely to be passed on to consumers in thin margin markets. Hidden fees will propagate higher product prices within the host province which will become inflated as a result of mark-ups that occur along the supply chain. This introduces the prospect of provincial cross-border shopping as consumers seek to pay lower costs in jurisdictions where product costs have not been inflated. None of these factors will be transparent to consumers.

There are additional factors that will cause retailers and consumers to incur additional costs under a hidden fee formula. Some national and regional retailers and manufacturers have information systems that cannot be configured for higher prices in a given province for the same product without substantial increases in costs to reflect configuration customization. The complexity of information systems demands that quality assurance, security protection and system compatibility will incur additional system integration costs.⁵ Some retailers who lease their premises pay rent based on gross sales. These rents will rise to cover EHF costs when they are internalized. This is a particularly troubling concern for small independent merchants and is problematic for those who are competing with large retailers. Concealing EHF's in sales receipts will place an additional and unnecessary burden on retailers not only on a day-to-day basis, but at month-end and year-end as well. For the competitiveness of retailers, the stakes are high.⁶

The Case for Transparency and Accountability

The need for clear and unobstructed access to information

The argument has also been made that the EHF should be hidden to avoid consumer backlash because EHF's could be construed as an additional tax. The assumption here is that there will emerge resistance to the EHF similar to the resistance to the acceptance of the GST/HST.⁷ This argument is unconvincing.

⁵ Interviews with systems integration analysts at HP and IBM, modifications to IT systems could increase information management (IM) costs by as much as 30%, May, 2011

⁶ Contribution margins and competitiveness in this segment of the retail industry are significantly impacted by even minor increases in their cost structure.

⁷ Interviews with analysts with the Canadian Chamber of Commerce, April 2011

The recent history of public engagement in New Brunswick where government transparency and accountability was called into question is far more telling. The public is much less likely to be sympathetic to government unwillingness to provide clear and unobstructed information about fee structures. The EHF provides funding in the public interest where there is demonstrable value and the Carlisle Institute believes that the GST/HST comparison is without merit.

All stakeholders are responsible in varying measures for the electronic waste management process and each stakeholder group should have access to the necessary information and knowledge to make informed decisions about their respective roles where stakeholders include producers, wholesalers, distributors, retailers and waste handlers. Key stakeholders include consumers and taxpayers and they must be part of the equation. All stakeholders are contributors to the solution and each therefore have a potential role to play in achieving it. Producers collectively are responsible for design and manufacturing of the product. Responsibility for marketing the product is often shared among producers, wholesalers, and retailers. Consumers in turn reward certain producers and retailers for the choices they make in their purchasing decisions as well as their choices to repair, upgrade or replace outdated or defective products. Consumers also make choices about their participation in the collection, recycling and reuse efforts offered by producers.

Shared responsibility requires a knowledgeable public

Consumers want to be involved in the stewardship process.⁸ To do so, consumers need to understand their role and their relationship with industry and government. This is an important element supporting shared responsibility, where consumers and taxpayers increasingly have indicated their willingness and interest in being integrated more fully in those critical decisions about the communities in which they live. However, consumers are unlikely to commit to a process in which critical information has been withheld from them.

One of the critical arguments in the widening discussion about the transformation of government is that citizens need clear and unambiguous access to the information necessary to make informed and timely decisions about issues that are important in their lives. Whether those issues focus on public safety, the use of public finances or the protection of the environment, governments are struggling to counter the prevailing perception that its decisions are too often focused on bureaucratic principles where information is closely held. Citizens are fundamentally beginning to re-evaluate what they want from government. Increasingly, they are determining what services government will deliver, at what cost, how government will cascade responsibility for some services to the private sector and how this will be regulated. As the need for accountability and transparency is combined with aggressive outcome objectives, the adoption of proven private-sector approaches and alternate service delivery models will become pervasive in the provision of government services. To animate these discussions, a knowledgeable public aware of the implications of decisions in government is necessary.

⁸ "Eco Fees require shared approach," Peter Lindfield, Telegraph-Journal, (April 19th, 2011), B1

Environmental stewardship should embody a shared responsibility model of decision-making and accountability. In addition, EHF pricing should raise consumer awareness of environmental costs by giving consumers unambiguously clear information about the full cost of the products they are purchasing. In addition, EHF pricing should advance extended producer responsibility (EPR) objectives by making producers accountable for EPR program financing and operation. Consumers increasingly are prepared to share responsibility with government and industry for the disposal of electronic products at the end of their life cycle, provided that industry demonstrates its commitment to the programs to manage this. This shared responsibility model involving informed consumer decision-making, corporate accountability, and the distribution of responsibility of the effort required to address the problems of environmental stewardship clearly is in the public interest.⁹

National and intra-provincial harmonization

Approaches to product stewardship across Canada currently are inconsistent and increasingly place retailers and consumers in the position of having to comply with a patchwork of requirements across the country. Implementing different programs in every province has proven to be costly and administratively burdensome for retailers and government. The harmonization of product stewardship programs across provinces would be a fundamental benefit not only for consumers, but for government and industry. Visible fees are currently allowed for all electronic stewardship programs across the country and New Brunswick can benefit from the same model, thereby increasing efficiency and lowering cost to consumers. Not only could the current and developing industry EPR infrastructure be optimized, but national and intra-provincial cooperation would be useful to further motivate all stakeholders to share responsibility in reducing the life cycle environmental cost of electronic products.¹⁰ Harmonization should be entrenched as a foundation for product stewardship programs going forward and would contribute to Canada's sustainable communities agenda by making waste management efficient and effective and by promoting cost transparency to consumers.

Conclusions and Recommendations

Fees should be visible to consumers. Environmental handling fee (EHF) visibility sends a clear signal to consumers that there are measurable environmental and financial costs associated with their purchase of products, especially if they have hazardous or other special characteristics requiring environmentally sound recycling or end-of-life disposal. Because fee visibility is a powerful source of information, visible EHF pricing best forms the communications foundation to inform consumers that there are environmental cost externalities in which all stakeholders have a role to play.

There is no evidence that concealing the EHF from consumers at the point of purchase confers significant advantages to consumers or industry in attaining program benefits. There is significant evidence that under a hidden fee regime, consumers will pay more for the recycling program compared

⁹ "The search for shared values on economy," Peter Lindfield, *Telegraph-Journal*, (May 17th, 2011), B1

¹⁰ Interview with Hon. Perrin Beatty, president and CEO of the Canadian Chamber of Commerce, April, 2011

to other jurisdictions, but with no increase in program funding or performance. Hidden fees will propagate higher product prices within the host province which will become inflated as a result of mark-ups that occur along the supply chain. This introduces the very real prospect of job losses through provincial cross-border shopping as consumers seek to pay lower costs in jurisdictions where product costs have not been inflated.

The Carlisle Institute recommends to the New Brunswick government that Environmental Handling Fees (EHFs) be made transparent and visible to the consumer at the point of purchase so that they can be knowledgeable partners in the stewardship process and better understand their role and their relationship with other stakeholders.

Government should not seek to assume the authority to unilaterally manage EPR stewardship plans. The most appropriate role for government relates to its public accountability not only for the objectives and goals set by EPR regulations but for the overall success of programs. Industry has an effective and efficient infrastructure in place and a proven track record. The cost of duplicating this infrastructure is not an effective use of taxpayer dollars.

Because of the complexities of the electronics supply chain, provincial governments should allow industry the flexibility to establish a funding model that makes the most sense for industry while achieving the goals and objectives of environmental stewardship. This means that government should establish clear policy objectives that need to be achieved, but allow industry the flexibility to develop innovative and efficient ways to achieve these objectives. The mechanisms, funding, administration and details of EPR program operation should essentially be the responsibility of producers in the same way that producers are accountable for the functionality of the products they sell. Industry can be more responsive to pressures and changes in the system and experience has shown that this will lead to a more equitable system where consumers pay for electronic waste management on a participatory basis and in proportion to how much they use the system.

The Carlisle Institute recommends to the New Brunswick government that the accountability for stewardship plans and the funding mechanisms within them should rest primarily with producers. However, government should be part of a shared responsibility model in partnership with industry where government's appropriate involvement should be to develop a non-prescriptive regulation that establishes a level playing field and deals effectively with the enforcement of offenders.

The challenges associated with electronic stewardship are considerable but with a collaborative model involving industry and government and with the support of consumers in a shared responsibility model, the objectives of environmental sustainability are achievable. Much is to be gained by leveraging the experience and expertise of all stakeholders in this effort. Effective, efficient and flexible environmental stewardship programs will become even more critical as electronics will play an increasingly important role in the lives of Canadians.

About the Carlisle Institute

The Carlisle Institute is a not-for-profit research centre and non-partisan think tank dedicated to the thought leadership that will improve the lives of people of Canadians through ideas, action and by fundamentally democratizing knowledge. As a consequence of dramatic global changes, the world is witnessing an astounding realignment of economic activity. It has never been more important to consider Canada's fundamental competitive position. Our overarching mission is to increase an understanding of the challenges of economic globalization and its building impact on Canada.

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