

**British Columbia
Stewardship Plan for End-of-Life Electronics**

DRAFT FOR PUBLIC CONSULTATION – AUGUST 2006

**British Columbia Electronic Stewardship working in conjunction with
Electronics Product Stewardship Canada
and the British Columbia Electronics Advisory Committee**

TABLE OF CONTENTS

Section	Title	Page
PART A	STEWARDSHIP PLAN OUTLINE	
1	Executive Summary	3
2	Program Principles	5
3	Organization, Structure and Management	5
4	Public Education and Awareness	7
5	Collection, Processing and Recycling	9
6	Performance Measures	12
7	Program Schedule	13
8	Products Included at Startup	14
9	Funding	14
10	Setting the Environmental Handling Fee	15
11	Responsibilities and Obligations	16
12	Reuse, Recycle and Design for Environment Strategy	17
13	Annual Report	17
PART B	ALIGNMENT WITH MINISTRY OF ENVIRONMENT BUSINESS PLAN PRINCIPLES	19
PART C	CONFORMITY TO THE APPLICABLE APPROVAL CRITERIA OF THE RECYCLING REGULATION	21
PART D	ALIGNMENT WITH THE CANADIAN COUNCIL OF MINISTERS OF THE ENVIRONMENT – CANADA-WIDE PRINCIPLES FOR ELECTRONICS PRODUCT STEWARDSHIP	23
PART E	ALIGNMENT WITH EPSC GUIDING PRINCIPLES	26
APPENDICES		27
	A – Stewardship Plan Consultation Process B – EPSC Design for Environment Report C – Recycling Vendor Qualification Standards D – Members of the Industry Council (BCES) E – Members of the B. C. Electronics Advisory Committee F – Corporate Members of Electronics Product Stewardship Canada (EPSC) G – Associations and Organizations	

PART A – STEWARDSHIP PLAN OUTLINE

1. Executive Summary

This stewardship plan has been developed in response to the amendment dated February 16, 2006, to the British Columbia Recycling Regulation of October 4, 2004 adding a schedule for electronics waste management. The schedule specifies that a stewardship plan is required to show how the electronics industry proposes to divert end-of-life computers, computer monitors, desktop printers and televisions from landfill through the promotion of reuse options and through collection, transportation, processing and subsequent recycling of products at end of life (EOL).

This plan has been developed to meet the following criteria:

Convenient Collection Systems

Based upon standards of cost-effectiveness and environmental health and safety, collection systems will be designed with user convenience and flexibility in mind. Actual collection points and methods will be determined through a competitive process which will assess such matters as proximity to population, ease of access, costs of operation, ability to handle products safely, facilities available and other measurements.

Processing and Recycling

Collected materials will only be shipped to pre-qualified recyclers and processors who meet the exacting standards of the Vendor Qualification Program developed by Electronic Product Stewardship Canada. (<http://www.epsc.ca/rvqp>)

Public Awareness and Education

An extensive program will be designed to ensure broad public awareness of the program: how to participate, how it works, how it is financed and what happens to collected materials.

Accountability and Transparency

The program will be operated by British Columbia Electronic Stewardship, a not-for-profit entity, which, in accordance with the Regulation, will provide annual public reports outlining how it is performing and its plans for continuous improvement. Audited financial statements will show how the program is financed effectively and how fees collected have been directly applied to the costs of the program.

Re-use of Electronic Products

The public awareness component of this plan has been developed to promote the environmentally sound re-use of computers and other electronic equipment by charitable organizations and other individuals prior to them entering the collection system.

Design for the Environment

The electronics industry has undertaken major efforts in the material content, design and construction of its products to improve their environmental performance. In addition there have been a number of international design initiatives which many EPSC members have chosen to adopt on a world-wide basis. EPSC is producing a document (see Appendix B) outlining progress being made by members of EPSC.

The program will be divided into three phases.

Phase 1: Plan development, public consultation and approval by the British Columbia Ministry of the Environment.

Phase 2: Completion of all steps necessary for program launch including:

- Identification and assessment of collection points and systems
- Identification and qualification of processors and recyclers
- Development of educational and awareness programs
- Identification and registration of obligated producers
- Systems testing, cost analyses and adjustment

Phases 1 and 2 will run concurrently

Phase 3: Full program introduction for obligated products including:

- Launch of consumer awareness programs
- Full operation of province-wide collection, transportation and processing systems for designated EOL products
- Commencement of environmental fees at point of purchase
- Annual reporting and verification of program results

2. Program Principles

A stewardship program will be introduced which will:

- Be consistent with the Canadian Council of Ministers of the Environment Canada-Wide Principles for Electronics Product Stewardship (CCME Principles) including harmonization with other Canadian provinces. (www.ccme.ca/assets/pdf/eps_principles_e.pdf)
- Be consistent with British Columbia stewardship principles as defined in the Ministry of Environment Business Plan, the Recycling Regulation and the Recycling Regulation Guide.
- Be consistent with industry developed (EPSC) guiding principles.
- Provide a level playing field and, in the longer term, provide the necessary research and development process to explore and define how environmentally responsible producers might be rewarded in the market place.
- Achieve a high level of compliance and minimize the potential for free-riders.
- Adequately address the issue of orphan, historic, and imported products from companies with no British Columbia operation or presence.
- Ensure the program is delivered with the lowest possible cost while achieving maximum environmental efficiency.
- Ensure materials are processed and recycled in a responsible manner that safeguards both the environment and worker health & safety as well as preventing illegal export to developing countries.
- Ensure the program reflects a shared responsibility model with appropriate roles for the provincial government, local government, consumers, industry, and other stakeholders.
- Ensure the program provides adequate coverage to all areas of the province including rural areas.
- Strive for continuous improvement in environmental and economic performance.

3. Organization Structure and Management

EPSC will establish British Columbia Electronic Stewardship (BCES), a not-for-profit corporation representing obligated producers which will oversee program development, management and operations.

EPSC created an advisory council of British Columbia stakeholders including non-governmental organizations (NGO), local and provincial governments, and local representatives which will review the major plan components and provide ongoing advice and guidance. Referred to as the B. C. Electronics

Advisory Committee, the activities of the committee will continue when BCES is established and operating.

Encorp Pacific (Canada), will serve as the management and administration service provider to the BCES program, and will contract with other service providers for public education and awareness, product collection, transportation, processing, recycling and auditing as required.

3.1 MANAGEMENT AND ADMINISTRATION

Reporting to BCES, Encorp Pacific (Canada) will be responsible for the management and administration of the program including, but not limited to, the following tasks:

- Management of the public consultation process required for the stewardship plan
- Identification, registration, and auditing of obligated producers
- Collection and disbursement of fees through a process which ensures confidentiality of data
- Management of program communications
- Serve as an interface for the public and with parties contracted under the program
- Preparing the annual report
- Defining and meeting the performance management targets for the program including the plan for continuous improvement.
- Overall day-to-day management of the program including liaison, in concert with BCES, with B. C. Electronics Advisory Committee and other stakeholders, and the British Columbia government.
- Management of contracts with the collection, processing and recycling service provider(s) and the audit functions.
- Setting and adhering to operating budgets.

All of the above activities undertaken by Encorp on behalf of BCES are separate and distinct from Encorp's duties as the product stewardship agency for non-alcohol beverage containers in British Columbia. There will be no cross-subsidy of operational costs between the beverage container program and the BCES program.

4 Public Education and Awareness

4.1 OBJECTIVE

To ensure broad public knowledge and understanding of the province-wide recycling program for end-of-life (EOL) electronics.

4.2 AUDIENCES

- All purchasers and current users of electronics including individual consumers, businesses, governments and institutions
- Retailers selling and/or taking back obligated electronic products
- Producers of obligated products including major brand owners, distributors, first importers and independent computer assemblers
- Collectors including depots, local governments, private contractors and community organizations
- Processors including primary and all sub-stages
- Other stakeholder organizations including none-profits
- Multi-lingual, multi-cultural and ethnic communities

4.3 MESSAGES

- What specific products are included for recovery and recycling in the BCES program
- Available options for the re-use of electronic products by charitable organizations and other individuals
- Collection points and systems for consumers, businesses and institutions
- Fee explanation including how much, who collects it and how it is used
- How the collection system will work in urban and rural areas and for persons with disabilities
- Handling requirements for collectors, processors and consumers including consumers' responsibility for ensuring data privacy in end-of-life computers
- What happens to collected equipment and the material derived from them

4.4 RESOURCES TO BE EMPLOYED TO DELIVER KEY MESSAGES

The key messages will be delivered to the public through a variety of methods designed to reach all of the identified audiences.

The program will include:

- A website which will include descriptions of programs, products, services, events and other relevant material and which will allow for direct e-mail contact

- In-store Point of Purchase material and informational brochures
- Newsletters targeted to specific audiences
- Statistical reports and research into public awareness levels
- Selected use of traditional media, such as television, radio and newspapers when these provide the most effective method of reaching target audiences
- Ongoing outreach and dialogue with local governments
- Stewardship Plan made public

4.5 TIMELINES

An initial 24 month program will be developed to cover pre-launch introduction, program launch activities and post-launch follow-up messaging. The plan will be continuously monitored and designed for maximum flexibility to allow for adjustments to messages and delivery mechanisms as required.

4.6 EVALUATION

The program will periodically evaluate public awareness of the program

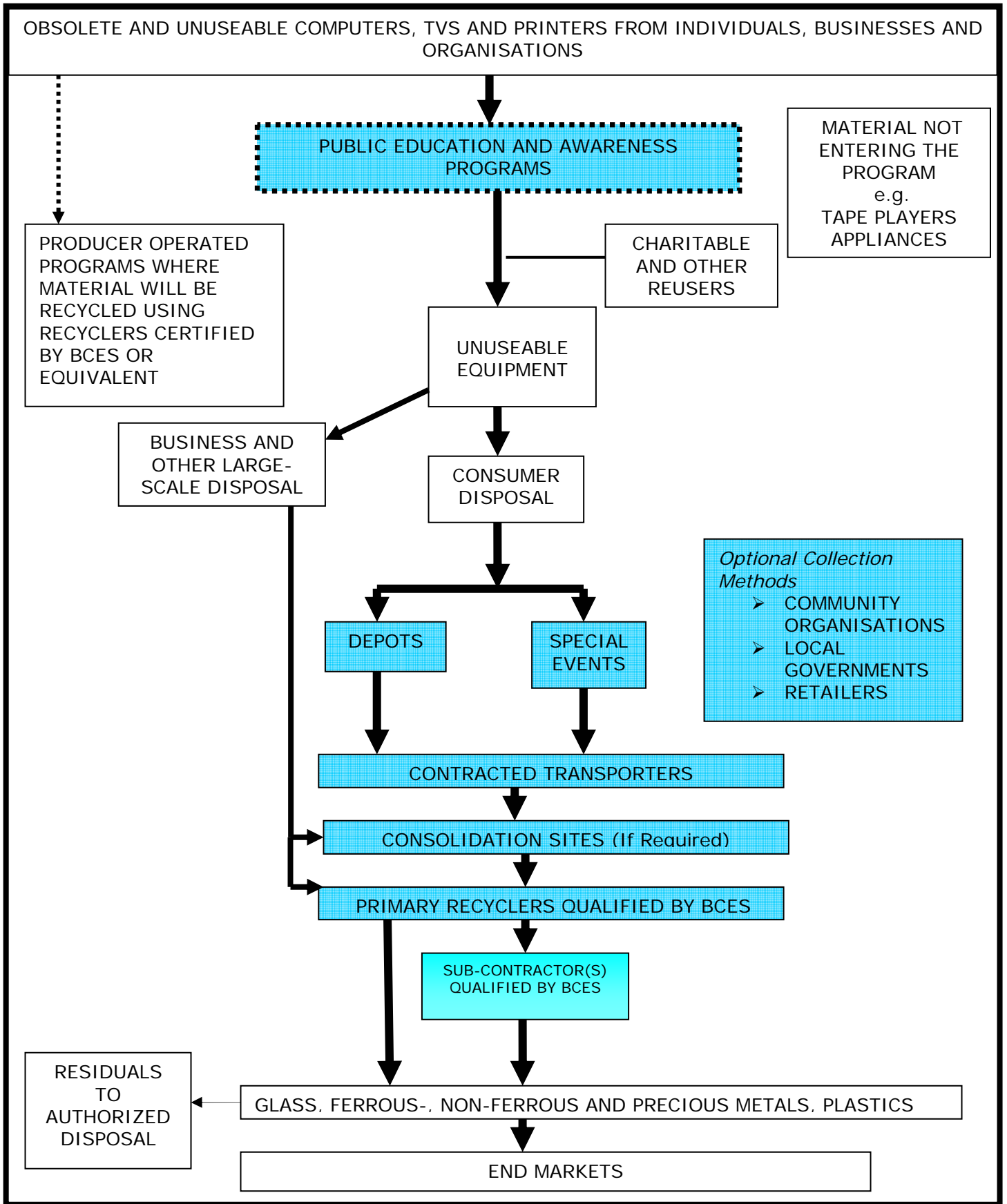
Discussion Items:

Are there key audiences not identified in the above section?

Are there key messages not identified in the above section?

Are there any specific avenues of public awareness not included above which may be useful ways of informing a segment of the public?

COLLECTION MATRIX



5 Collection, Processing and Recycling

Following the diversion of reusable electronic products to appropriate refurbishment and re-use channels, the remaining designated EOL electronics will be collected, processed and recycled through one or more contracts negotiated with service providers.

5.1 COLLECTION

Collection of designated EOL electronics from consumers will be accomplished through a variety of mechanisms designed to meet the needs of consumers as well as operational requirements.

Selection of a specific collection point or system will depend on the needs of the identified market and each must meet minimum standards of cost-effectiveness and environmental health and safety. Selection of collection points will be through a competitive process assessing such factors, among others, as proximity to population, ease of access, costs of operation, ability to handle designated products, expertise, facilities, operational plans, etc.

The performance of each type of collection point or system will be regularly assessed to determine how each can be improved and adapted to changing conditions.

Collection points will include:

Depots – Utilizing the existing network of Bottle and Return-It Depots wherever feasible, consumers will be able to combine the return of designated EOL electronics with other reasons to visit the depot. The network of 170 existing depots will be assessed to determine which are physically capable of handling designated EOL electronics and can provide adequate coverage accessible to consumers in all parts of the province

Commercial and Institutional Users - These are the most likely sources for re-useable computers since systems are replaced well before final obsolescence. These organizations will be targeted to ensure that they are familiar with the re-use options available. Where the commercial user has determined that the equipment is at the end of its useable life, the program will direct these users to the appropriate consolidation site or processor

Special events – “Roundup” events will be scheduled where it is determined that a significant pool of designated EOL electronics may be available and/or where an organization wishes to partner with Encorp to promote an event.

Optional Collection Points

Charitable and Environmental groups – It is anticipated that some charitable collectors of donated items may wish to add obligated

products to their collection programs. Environmental groups have organized collection programs for electronics in the past and may wish to continue to do so. In such cases Encorp will negotiate suitable terms and conditions for participation.

Local government waste collection facilities – Where feasible, where local government has willingly consented and compensation terms have been agreed, municipal and regional waste transfer and drop-off facilities may be used to collect designated EOL electronics. This will provide consumers with the convenience of being able to combine waste disposal activities into one trip.

Retailers – Where desired by retailers, and operationally feasible, consumers may be able to return designated EOL electronics to selected retail stores either on a scheduled event or continuous basis.

Collection sites will require materials handling equipment suitable for storage and movement of pallet loads of collected material

The program will work to maximize the use of existing waste collection infrastructure in the province, provide potential opportunities for both public and private waste management collection, and facilitate healthy competition.

5.2 PROCESSING AND RECYCLING

Following collection at any of the above points, and dependent upon the quantity, designated EOL equipment will be moved to consolidation sites in selected areas of the province where transport-efficient loads of sorted material types will be assembled. Large consolidated loads may be moved directly from collection points to primary recyclers. Transportation to consolidation sites will be by trucks equipped with tail gates and pallet jacks. Consolidation sites will be capable of housing the equivalent of a trailer load of material.

Full loads of collected designated EOL material would then be transported to approved processing and recycling contractors.

All processors and recyclers, and their sub-contractors, will be required to meet EPSC Recycling Vendor Qualification Standards to ensure that materials are processed in an environmentally sound manner with appropriate health, safety and export provisions.

The program will work to maximize local collection, transportation, processing and recycling of waste material wherever possible.

5.3 THIRD PARTY VERIFICATION

As part of the Recycling Vendor Qualification Standards an independent third party will be employed to review applications by recyclers and processors for compliance with the Standards and conduct audits prior to them receiving

any designated materials. The independent third party will also conduct regular audits of approved recyclers to ensure continued compliance to the standards.

6 Performance Measures

6.1 The Regulation calls for a 75% recovery rate or other rate that may be set by the Director. End of Life electronics pose a particular problem for meaningful measurements of program performance. This is for a number of reasons:

1. Diversion programs for this kind of waste are relatively new to North America – the oldest program is only two years old. The result is a lack of knowledge of behaviours surrounding return patterns and needs as well as the timing between purchase and return for recycling.
2. Although all obligated products are electronics each product category has vastly different distribution, user patterns and average lifespan which can range from 5 to 20 years. Averaging sales over the last 5 or 10 years is not only difficult but also is not particularly relevant to all product types
3. The size of the historic waste pile is unknown leading to a lack of knowledge of return rates and user behaviour. It is also impossible to predict when the stock of historic waste will be cleared away and the program reaches a steady state for returns
4. The supply chain for obligated products is extremely complex. Products are sold through a wide variety of distribution channels from direct sales to consumers, retail sales from out of province, and distribution through central warehouse facilities. Even when the program has been fully operational for several years it will be difficult to ensure complete reporting, and payment of fees, for all obligated products sold in B.C.

In the absence of reliable data on which to calculate such a recovery rate, and the difficulty of establishing a meaningful measurement, this plan does not propose a recovery rate at the outset.

The Regulation also requires re-submission of stewardship plans after five years and, by then, sufficient data and experience should have been gathered to allow the establishment of a valid statistical performance measure based on relevant data accumulated in the initial implementation of the program.

6.2 CONTINUOUS IMPROVEMENT – In the interim, as an indication that this is a leading program, BCES will commit to two principles for performance measurement that are absent in all current North American programs:

1. It is assumed that the existing stockpile of historic waste is sufficient to ensure that the program will show increases in volumes of obligated materials collected in the first few years.
2. Improvements in this phase will concentrate on reducing the volumes of non-obligated material entering the system thus reducing the overall costs of the program.

In addition to the above BCES will conduct two studies:

1. A world-wide study of the metrics used in EOL programs to determine those appropriate for this type of program and the ones best suited for B.C.
2. Within a reasonable time (suggested as being 24 months) from the commencement of the program, BCES will undertake to research public awareness of the program and will report on its findings.

6.3 OTHER PERFORMANCE MEASURES

In addition to the above the program will measure its collection performance in comparison to other jurisdictions with similar programs such as Alberta and Saskatchewan.

Collection figures measured in kilos per capita are used in several jurisdictions but the range of materials being measured can be very broad (e.g. refrigerators, stoves, etc.) Where truly comparable information exists, weight per capita may also be used as a measure of performance in British Columbia. Care will have to be taken with this comparison to ensure that truly comparable programs are being used and allowances would have to be made for the environmental & technological advances in designated products which result in steady weight reductions for many types of equipment.

The performance of due diligence in ensuring proper handling and processing of collected materials will also be useful as a measurement of success. The diversion of materials from land fill and the consequent removal of toxic substances from the environment will be measured and reported by weight.

7 Program Schedule

Public Consultation on the stewardship plan

August-September 2006

Submission of the stewardship plan to the Ministry of Environment:

October 2006

Program operational:
By August 2007

8 Products Included at Program Startup

The program will commence with the list of products outlined in the regulation:

Computers designed for desktop use by an individual, for desktop use as a server or to be portable (not including hand-held devices). This definition includes the monitor and peripherals such as a keyboard, mouse and cables.

Desktop printers defined as a printer that will print on paper not exceeding 8.5 inches in width but not including label printers

Televisions

The program does not include computers or televisions that are part of or attached to vehicles, marine vessels or commercial or industrial equipment.

Additional or expanded descriptions of eligible products will be developed as technological change requires while adhering to all program principles.

9 Funding

The program will be funded by an environmental handling fee remitted by the producer of designated products and shown separately by sellers on sales receipts. (Note: Some companies may choose not to show the fee should the costs of system changes be prohibitive. In this case the producer and/or the seller would indicate to consumers, through point-of-sale information, that the fee is included in the product price).

The environmental handling fee will be set by product category, not a flat fee across all products, and will reflect the true costs of managing the program. The environmental handling fee will fund:

- Collection, handling, processing and recycling
- Communication and public education
- Administration expenses
- Compliance provisions

As part of our continuous improvement program we will review methods to reward in the future, in the marketplace and in an economically and efficient manner, those producers making environmental investments including the option of eliminating visible fees.

Funding mechanisms will be established to prevent cross subsidy between the major categories of electronics (e.g. between computers and televisions) so that each category bears its own, and only its own, costs of collection and recycling.

10 Setting the environmental handling fee (EHF)

The environmental handling fee will be specific to product type and will reflect the true costs of managing the program. The environmental handling fee will be evaluated on an annual basis and will be adjusted to ensure there is enough revenue generated to operate the program and that funds are not being over or under accumulated. Fees and categories for British Columbia have yet to be established but will be harmonized, as far as possible, with fees in other provinces.

For example: the current fees in Alberta are:

Televisions – from \$15 to \$45 depending on size

Computers - \$10

Printers - \$8

Laptop/notebooks - \$5

Computer monitors- \$12

Consideration will be given to implementing an environmental handling fee on mice and keyboards or requesting that the obligated stewards for these products make an annual program contribution.

10.1 FUNDING FLOW

Producers will remit environmental handling fee payments to BCES, care of Encorp Pacific, on net designated product sales (net referring to gross sales minus product returns etc).

10.2 FINANCING ACTIVITIES IN ADVANCE OF FEE COLLECTION

Activities in advance of fee collection will be funded by Encorp Pacific and will be reimbursed from future program revenues, with interest. Examples include:

- EPSC costs for the preparation and submission of a Stewardship Plan
- Cost associated with establishing a collection network
- Development of a public education program
- Identification and assessment of qualified processors

11 Responsibilities and Obligations

The program plan is based on a shared responsibility model where all affected parties have a role to play.

11.1 PRODUCERS

Producers are obligated to develop a diversion program for waste electronics that is consistent with provincial regulation, industry principles and the CCME principles. Producers are responsible for remitting the environmental handling fee to BCES care of Encorp Pacific on designated product sales. Producers are responsible for establishing a not for profit entity to act as the stewardship agent in British Columbia or submitting and running their own program.

11.2 SUPPLIER TO THE END-USER (Retailer, value-added reseller, manufacturer direct sales)

Suppliers of designated products to the end-user are responsible for providing point-of-purchase materials about the program to the consumer and remitting the appropriate EHF to BCES.

11.3 PROCESSING AND RECYCLING CONTRACTORS

All processing and recycling contractors will be approved under the EPSC Recycling Vendor Qualification Program and must meet, or exceed, all health, safety, export and other regulations and standards. Third party verification audits will be conducted to approve processors and monitor compliance with standards. Vendors will not be permitted to process any materials until they have successfully passed third party verification.

11.4 PROVINCIAL GOVERNMENT

The provincial government is expected to ensure that regulations allow for adequate fines and penalties to be levied against those individuals not in compliance with the regulation or the approved program. The provincial government is also expected to enforce program compliance in a timely and effective manner.

The provincial government is also expected to implement policies to ensure that government procurement officials only procure electronics from program compliant corporations and that government agencies pay the appropriate fees.

11.5 LOCAL GOVERNMENT

Local government is expected to support the program and may wish to act as collection sites for designated material with appropriate reimbursement for services provided. Local government is also expected to support the program via procurement policies. Any designated EOL equipment collected by local governments must be recycled through the program.

11.6 CONSUMER OR END USER

Consumers will be responsible for paying the EHF at time of purchase, using the available reuse and recycling options, and for delivering designated end-of-life electronics material to collection points.

11.7 BRITISH COLUMBIA ELECTRONICS STEWARDSHIP

BCES will manage the program to provide an environmentally effective program at the lowest cost and will ensure that the public is kept informed of program costs and activities.

12 Reuse, Recycle and Design for the Environment Strategy

A key element of a stewardship program is to provide sustainable options for reuse and recycling, and to provide an incentive to producers to design products with a reduced environmental burden.

12.1 REUSE

BCES will recognize the importance of reusing older products through the public awareness and communications program. The public will be informed of the importance of and the variety of options for reuse. (See Section 4 and Collection Matrix)

12.2 RECYCLE

Recovering material from designated EOL electronics is the first recycling option with energy recovery from plastic and wood being the second option. Landfill disposal and incineration without energy recovery is the last option. All processing will be completed by contractors who have been qualified under the EPSC Recycling Vendor Qualification Program. (See Appendix C)

12.3 DESIGN FOR THE ENVIRONMENT

The program will report on EPSC members' design for the environment initiatives. (See Appendix B)

13 Annual Report

BCES will provide an annual report to the British Columbia government as outlined in the regulation. The annual report will be available on the program website as a PDF file. The report will include, but not be limited to, the following:

- A summary of the educational materials and educational strategies the producers have used
- The location of collection facilities, events and any changes in the number and location of collection facilities
- Efforts taken by or on behalf of producers to reduce the environmental impacts throughout the products' life cycle and to increase usability or recyclability at the end of the life cycle

- A description of how the recovered product was managed in accordance with the pollution prevention hierarchy
- An estimate of the total amount of designated products sold, the total amount collected and the final destination of materials.
- Independently audited financial statements
- A comparison of the approved plan performance for the year with the performance requirements and targets in the regulation and the approved plan
- Where feasible, collection information will be provided on a sub-provincial level

Discussion Item:

Are there additional means to achieve transparency that are not included in the above?

PART B – ALIGNMENT WITH MINISTRY OF ENVIRONMENT BUSINESS PLAN PRINCIPLES

Producer/User Responsibility

- *Responsibility for waste management is shifted from general taxpayers to producers and users*

The management of waste electronic products covered by this stewardship plan is solely the responsibility of producers and users of such equipment.

- *Responsibility is not shifted to other levels of government without consent*

Responsibility, limited to the performance of agreed contracts, will take place only where local governments willingly consent to involvement in the recovery system.

Level Playing Field

- *All brand owners for a particular product category are subject to the same stewardship*

22 of Canada's leading Consumer electronics & IT producers have agreed to participate in a common collection and recycling program. Through market monitoring, retail competition and collection audit, non-participating brand owners will be identified and brought into the system through cooperation or, if necessary, through the enforcement provisions of the Regulation

- *All consumers have reasonable access to product collection facilities*

The combination of collection sites and systems to be used for waste electronics will ensure that consumers in all regions of the province have reasonable access

Results Based

- *Programs focus on results and provide brand owners with flexibility to determine the most cost-effective means of achieving the desired outcomes with minimum government involvement*

The program outlined in this stewardship plan allows for maximum flexibility in determining the most cost-effective method of achieving satisfactory recovery results. Government involvement will be minimized at all levels.

- *Product categories are clearly defined to simplify compliance and enforcement and ensure common understanding among program participants.*

From a producer perspective, the categories defined in the Regulation are straightforward. The unknown factor is the degree to which consumers may wish to return waste electronics not specified in the Regulation. This is a key component of the consumer awareness program.

- *Programs are tailored for individual products and encourage continued innovation by producers to minimize environmental impacts during all stages of the product lifecycle, from product design to end-of-life management.*

Continued innovation is the hallmark of the electronics industry and design for the environment is becoming a key criterion for many products. Collection programs as detailed in this stewardship plan provide the segregation of products necessary to produce the most beneficial environmental and economic outcomes available.

Transparency and Accountability

- *Program development process is open and provides opportunity for input from all stakeholders.*
- This stewardship plan is the result of extensive consultation with all stakeholders over a period of several years. It also allows for continuous feedback from producers, consumers and other stakeholders to ensure that the system is refined as it matures. *Industry is accountable to both government and consumers for environmental outcomes and the allocation of revenue from fees/levies*

The electronics industry is acutely aware of the need to be accountable to consumers for its environmental performance so much so that it has voluntarily established the vendor qualification program. Through the reporting mechanisms outlined in this stewardship plan and in particular through the extensive auditing of recyclers , BCES will provide ample opportunity for government and public oversight of its operations and a full accounting of fee revenues.

PART C – CONFORMITY TO THE APPLICABLE APPROVAL CRITERIA OF THE RECYCLING REGULATION

PART 2 Section 5 (1)

(a)

(i) a 75% recovery rate or a higher recovery rate established by the Director

- SEE Part A, Section 6

(b) the producer has undertaken satisfactory consultation with stakeholders prior to submitting the plan for approval and will provide opportunity for stakeholder input in the implementation and operation of the product stewardship program....

- SEE Appendix A

(c) the plan adequately provides for

(i) the producer collecting and paying the costs of collecting and managing products within the product category covered by the plan, whether the products are currently or previously sold, offered for sale or distributed in British Columbia...

- SEE Sections 9 and 10

(iii) reasonable and free consumer access to collection facilities

- SEE Section 5.1 and Collection Matrix

(iv) making consumers aware of:

- 6.1 the producer's product stewardship program*
- 6.2 the location of collection facilities, and*
- 6.3 how to manage products in a safe manner*

- SEE Section 4

(v) assessing the performance of the producer's product stewardship program, the management of costs incurred by the program and the management of environmental impacts of the program,

- SEE Sections 6, 5.1, 12.3 respectively

(vi) a dispute resolution procedure for disputes that arise between a producer and person providing services related to the

collection and management of the product during implementation of the plan or operation of the product stewardship program,

- All contracts between Encorp and persons providing services contain standard commercial language outlining dispute resolution procedures

(vii) eliminating or reducing the environmental impacts of a product throughout the product's life cycle

- SEE Vendor Qualification requirements (Appendix C) and industry Design for Environment report (Appendix B)

(viii) the management of the product in adherence to the order of preference in the pollution prevention hierarchy.

- SEE BELOW

POLLUTION PREVENTION HIERARCHY

This section describes how this stewardship plan will adhere to the relevant stages in the Pollution Prevention hierarchy as described in *Part 2, Section 3* of the Recycling Regulation

(a) reduce the environmental impact of producing the product by eliminating toxic components and increasing energy and resource efficiency

- See industry Design for the Environment report (Appendix B)

(b) redesign the product to improve reusability or recyclability

- As in (a) above

(c) eliminate or reduce the generation of unused portions of a product that is consumable

- Not applicable

(d) reuse the product

- See Section 4.2 and Collection Matrix

(e) recycle the product

- See Section 5.2

(f) recover material or energy from the product

- See Section 5.2

(g) otherwise dispose of the waste from the product in compliance with the Act

- Any residues remaining from recycling will be disposed of in compliance with the Act

PART D – ALIGNMENT WITH THE CANADIAN COUNCIL OF MINISTERS OF THE ENVIRONMENT – CANADA-WIDE PRINCIPLES FOR ELECTRONICS PRODUCT STEWARDSHIP

Preamble

The management of used electrical and electronics equipment (e-waste) is rapidly becoming a major public policy issue in Canada and elsewhere around the world.

Environmental concerns relate to the potentially hazardous nature of some of the materials these products contain and the increasingly large quantity of these products that require disposal in waste management systems. E-waste may contain lead, cadmium, mercury, and other potentially hazardous materials.

In accordance with CCME principles for pollution prevention, producers of electrical and electronic products are responsible for their products at end-of life. It is widely recognized that legislative/regulatory initiatives are required to establish a level playing field for industry in the management of e-waste. The objective of these Canada-wide principles is to assist and support jurisdictions in the development of e-waste programs. While recognizing differences in the legislative/regulatory framework and existing programs among jurisdictions, CCME encourages regional or national cooperation in the development of e-waste programs. Specific measures undertaken by each jurisdiction will be at their discretion, with the goal of effective, efficient, and harmonized implementation.

To promote harmonization of approaches to the greatest extent possible, and to prevent market distortions among jurisdictions, the Canadian Council of Ministers of the Environment (CCME) endorses the following Canada-wide principles for electronics product stewardship:

Principles

1. Responsibilities associated with management of e-waste are primarily borne by producers of the products, where “producer(s)” means the manufacturer, brand-owner or first importer of the product who sells or offers for sale the product in each jurisdiction.

- Under this Stewardship Plan all management of e-waste is borne by the producers of the products.

2. Costs of program management are not borne by general taxpayers.

- All costs of this program are borne by consumers and producers of designated products

3. Environmental and human health impacts are minimized throughout the product life-cycle, from design to end-of-life management.

- Product design and manufacture of obligated products is constantly being renewed by competitive pressures as well as through federal/provincial and international regulations and standards. End-of-life processes covered by this Stewardship Plan are completed under strict environmental and human health guidelines as well as meeting all relevant regulations.

4. Management of e-waste is environmentally sound and consistent with the 4R waste management hierarchy:

a. Reduce, including reduction in toxicity and redesign of products for improved reusability or recyclability

- Obligated producers covered by this Plan are constantly reviewing the use of toxic materials and redesigning products to conform with tightening international standards and regulations as well as to keep pace in a highly competitive market. (See Appendix B)

b. Reuse

- Reuse options will be communicated to promote reuse prior to equipment entering into the collection and recycling system outlined in this Plan. (See Part A Section 4 and Collection Matrix)

c. Recycle

d. Recovery, of materials and/or energy from the mixed e-waste stream

- All remaining materials collected under this Stewardship Plan are processed, under strict environmental and safety standards, to recover base (glass, metals, plastics) with material recovery as the first priority, energy recovery as the second priority and disposal as a final option. (See Part A, Section 5.2)

5. Consumers have reasonable access to collection systems without charge.

- Under this Plan consumers and businesses throughout BC have convenient access to collection points and systems without charge.

6. Education and awareness programs ensure that consumers, retailers and other stakeholders have sufficient information on program design and knowledge of their roles.

- The Plan calls for a continuous program of consumer education and awareness.

7. Program design and implementation will strive for equity and consistency for consumers, particularly between those who live in adjacent jurisdictions and between those who live in small, rural and remote communities and large urban centres

- As per 5 above

8. Adjacent jurisdictions will strive for consistency in e-waste products collected.

- The obligated products and recycling standards in BC will be broadly consistent with those in Alberta and Saskatchewan

9. Programs will include residential, commercial, historic and orphan products.

- This Plan addresses the above-named products and user categories.

10. Programs will report on performance, specify objectives and targets, and be transparent in financial management.

- This Plan commits the industry to providing regular public reports on the above topics.

11. E-waste is managed in the most economically and logistically feasible manner, while striving to maximize local economic and social benefits.

This Plan will strive to operate in the most economical and feasible manner while providing the maximum in local benefits.

12. E-waste is exported from Canada for recycling only at facilities with a documented commitment to environmentally sound management and fair labour practices.

- This Plan limits the recycling of products to facilities located only in OECD countries with no allowance for onward export.

PART E – ALIGNMENT WITH EPSC GUIDING PRINCIPLES

EPSC Guiding Principles for Developing a National Program

1. Level playing field for all involved companies

Provincial governments must be prepared to put into place sufficient enforcement mechanisms so that all affected companies will be required to participate.

Both the Recycling Regulation and the BCES stewardship plan include mechanisms designed to minimize the number of obligated producers not participating in the program.

2. Shared responsibility

Local, provincial and federal governments, consumers and other stakeholders should be responsible for maximizing the use of existing waste management infrastructure. Industry should be responsible for pickup and recycling.

The BCES program is designed to make the maximum use of existing infrastructure.

3. Consumer waste stream

The focus here is to manage and dispose of those products in the consumer (i.e. municipal) waste stream, as opposed to commercial products.

The Electronic Product Category schedule of the Regulation and the BCES program are designed to deal with products in the consumer waste stream

4. Economic and environmental efficiency

The lowest overall costs must be the goal of any program, and we must ensure that we develop industry benchmarks for both acceptable costs and effective environmental management.

The BCES program is designed to establish benchmarks for both activities

5. Fair treatment of historic waste

Historic waste must be dealt with in a fair and equitable manner that does not penalize existing manufacturers.

The BCES program will deal with historic waste in a fair and equitable manner that does not penalize existing manufacturers

6. Environmental management

End-of-life products must only be managed in locations that have environmental and health laws acceptable to Canada

The BCES program meets this standard