

An End-of-Life Electronics Stewardship Program for Nova Scotia

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Revision 3 – Submitted February 2012

1. Introduction

Atlantic Canada Electronics Stewardship (ACES) is pleased to present this third revision to the approved plan which addresses specific amendments approved or requested by NSE as well as certain ACES initiatives impacting the program since the launch of Phase II of the program in February 1, 2009.

ACES is a not-for-profit association, incorporated under the (Nova Scotia) Societies Act and represents all of its members who are obligated under the Electronic Products Stewardship Program Regulation. ACES is the local governance authority for the program created through the joint efforts of Electronics Product Stewardship Canada (EPSC) and the Retail Council of Canada (RCC). Its current membership includes 584 brand owners who sell, offer for sale or otherwise distribute designated electronic products in or into Nova Scotia.

All amendments to this plan have been developed and/or approved by the ACES Board of Directors. ACES will continue to consult with relevant stakeholders as appropriate should subsequent revisions to this plan be necessary.

These amendments are submitted by ACES on behalf of all the obligated brand owners it currently represents. A current listing of all registered members is available on the ACES website at www.cestewardship.ca. This listing is updated on a weekly basis as new registrants join.

2. Summary

This document outlines a stewardship plan to divert unwanted and end-of-life (EOL) electronic products from landfill, as required by the Solid Waste-Resource Management Regulations which came into effect February 1, 2008.

Under this plan, regulated electronic products are not only diverted from landfill, but also from illegal export, by promoting the options of reuse for unwanted products in working order where in-country markets and reuse opportunities exist and the collection and recycling of unwanted products at their end-of-life. These two options will be emphasized in the communications and public awareness strategy which will maximize participation in this stewardship program.

This stewardship plan for Nova Scotia is based on a shared responsibility model where manufacturers, retailers, consumers, and government all have a role to play.

Manufacturers and brand owners are responsible for providing the collection and recycling program that will manage all electronics waste (e-waste) items identified in the Province's Solid Waste-Resource Management Regulations.

Retailers¹ are responsible for ensuring that an Environmental Handling Fee (EHF) is applied to new electronics items designated in the Regulation and remitting the funds to the program administrator to cover all aspects of the program, including collection, transportation, recycling, public awareness and administration.

Consumers² pay the EHF on these designated new electronics items at the point-of-purchase³. Consumers and businesses are able to drop-off their e-waste items covered by the Regulation at a designated drop-off site without charge and with assurance that these items will be recycled responsibly. The ICI sector also has the option of scheduling drop-offs for large quantities of e-waste. Contracted recyclers for the program are required to meet the EPSC Electronics Recycling Standard (ERS).

Government (Nova Scotia Environment) is responsible for enforcing the Regulation and ensuring full program compliance.

The program, at the outset, was divided into three stages:

Stage 1 focused on development and submission of the plan and its approval.

Stage 2 covered plan implementation - the period of time between plan approval and program launch.

Stage 3 covers ongoing plan operations.

Phase I electronic products, as defined by regulation, include: desktop computers, laptop and notebook computers (includes CPUs, keyboards, mice, cables and other components in the computer), computer monitors desktop printers, and televisions.

Phase II electronic products, as defined by regulation, include: computer scanners, audio and video playback and recording systems, telephones and fax machines, and cell phones and other wireless devices – please refer to [Appendix D](#) for ACES detailed product definitions.

Note 1: To promote consistent messaging and product lists among provincial programs and to avoid confusion at the consumer level, fax machines were incorporated into the list of acceptable materials at ACES Drop-off Centres effective May 1, 2008.

Note 2: Whereas an alternate stewardship plan for mobile cellular devices submitted by the Canadian Wireless Telecommunications Association (CWTA) was approved by Nova Scotia Environment, the ACES plan does not promote an end-of-life solution for those products. However, ACES will ensure that all obligated products collected at an ACES drop-off centre will be handled responsibly, including those cellular products which are the responsibility of the CWTA program.

It is the intent of ACES to ensure this program remains self-sustaining and continues with no specified end date or as specified by Nova Scotia Environment.

¹ Retailers means sellers – this also extends to internet vendors, wholesalers, manufacturers and brand owners selling direct or at store level

² Consumers means buyers – this also extends to businesses, including Industrial, Commercial and Institutional – the ICI sector

³ Point-of-Purchase - usually means a retailer but also might be an internet vendor or for businesses it may mean a wholesaler or even manufacturer

3. Program Principles

The ACES product management program shall:

- Be consistent with the Canadian Council of Ministers of the Environment (CCME) Canada-Wide Principles for Electronics Product Stewardship (C-WPEPS) which includes harmonization with other Canadian provinces;
- Be consistent with industry's guiding principles for stewardship programs which include promotion of the EPSC Electronics Recycling Standard (ERS) and harmonization with other jurisdictions where possible;
- Be open to all obligated brand owners;
- Provide for a level playing field that ensures fair competition;
- Achieve a high level of compliance and eliminate the potential for free-riders;
- Adequately address the issue of orphan, historic, and imported products from companies without a Nova Scotia or Canadian presence;
- Promote reuse as a first and preferred option for unwanted program materials where markets and opportunities for reuse in-country exist;
- Ensure unwanted and end-of-life program materials are recycled in a responsible manner, meeting all Occupational Health and Safety and Audit provisions of the EPSC Recycler Qualification Program (RQP);
- Seek to maximize program activities within the province, creating social and economic opportunities for Nova Scotians provided that these opportunities can be developed and sustained in a cost-competitive and environmentally responsible atmosphere;
- Ensure the program is delivered in an environmentally sound and economically efficient manner; and
- Include full public transparency for financial and environmental reporting.

4. Management Structure of the Program

Stage 1 activities were managed by an EPSC Industry Advisory Committee, comprised solely of brand owners and first sellers. Once the program plan received approval, this Committee incorporated a not-for-profit governance entity in the Province of Nova Scotia called Atlantic Canada Electronics Stewardship (ACES). Obligated brand-owners were then able to join ACES to satisfy their regulatory obligations toward an EOL Electronics Stewardship Program. Stage 2 and 3 activities have been managed by ACES.

Resource Recovery Fund Board Inc. (operating as RRFB Nova Scotia) was selected through a competitive bid process to act as program administrator, looking after the day-to-day activities of Stage 1 and reporting to the Industry Advisory Committee. While working under a Memorandum of Agreement (MOA) with EPSC, RRFB Nova Scotia continued into Stage 2 activities and Stage 3 activities are managed via contract with RRFB Nova Scotia.

ACES, via RRFB as its contracting agent, in turn, entered into subcontractor arrangements with service providers for collection, transportation, consolidation and recycling of the EOL electronic products.

4.1 Industry Advisory Committee

A committee of brand owners and first sellers was established in February 2007. This committee was tasked with taking the necessary steps to develop the initial version of this plan and manage the program until ACES was incorporated.

Following incorporation and a first meeting of the society in December 2007, the ACES Board of Directors replaced this industry advisory committee.

4.2 Local Advisory Committee

A second committee was struck in June 2007 – its mandate was to provide advice and guidance as companies obligated by the Regulation moved forward with development and implementation of the stewardship plan. This local advisory committee represents, in broad terms, the interests of Nova Scotians and Prince Edward Islanders and is comprised of representatives from municipal governments, provincial waste-resource management authorities, the academic community, as well as non-government organizations (NGOs). A list of committee members is provided in [Appendix A](#).

Note 3: Nova Scotia Department of Environment and PEI of Department Environment, Labour and Justice have observer status and can participate as an advisor to this committee.

This committee provided feedback to the Industry Advisory Committee on aspects of the program related to Stage 1 activities and has continued to play an important role as the program continues to mature.

4.3 Formal Governance Authority

Recently EPSC and RCC members have expressed a desire for standardized national policies, centralized decision making and efficient use of company resources to effectively manage the industry-led programs across the country. In an effort to achieve this result, a new National Board entitled 'Electronic Products Recycling Association (EPRA)' was created by EPSC and RCC. The objective of this exercise is to evolve the current Provincial Program Boards into one National Board that focuses on strategy and policy but leaves operational management with the local entity. The ACES Executive Director and management team will continue to direct operations from Atlantic Canada.

The existing ACES Board will be phased out and the new EPRA Board will consist of representatives from within its existing membership, including manufacturers, producers and retailers. A total of 12 directors will be appointed to the EPRA Board and its composition, present list of directors and staff is outlined in [Appendix A](#). One of the two Independent Directors on the Board will be appointed from Atlantic Canada. A President and Chief Executive Officer, Mr. Cliff Hacking, has been hired to interface between the EPRA Board and the Provincial programs. EPRA has received extra-provincial registration in both NS and PEI.

4.4 Program Administrator

Following a comprehensive Request for Proposal (RFP) process, the Industry Advisory Committee selected RRFB Nova Scotia to administer the proposed program. ACES has an agreement with RRFB Nova Scotia for the provision of program management services for Phases I and II of the program. The effective date of the agreement reverted to the MOA signing date of May 24, 2008 and covers the following responsibilities:

- Administration of the program;
- Identification, registration and auditing of obligated brand owners;
- Identification of and contracting with all service providers including drop-off sites, transportation and haulers, and consolidation and recycling facilities;
- Collection and disbursement of fees through a process which ensures confidentiality of data;
- Program communications and public awareness;
- Interface with the public and service providers contracted under the program;
- Preparation of the public annual report;
- Definition of performance management targets for the program including the plan for continuous improvement;
- Overall day-to-day management of the program including liaison with Nova Scotia stakeholders and the Nova Scotia government; and
- Creation of an annual program business plan including setting and adhering to operating budgets.

In exercising its responsibilities, RRFB Nova Scotia reports to ACES.

Whereas the program is expected to continue with no specified end date and the contract between RRFB Nova Scotia and ACES has a specified end date, any decision to extend the contract or seek a program administrator through a competitive bid process prior to contract expiration, shall be at the discretion of ACES.

5. Public Consultation

In preparation of the initial version of this plan, EPSC and RRFB Nova Scotia invited Nova Scotians to participate in an on-line survey designed to gauge public opinion about the electronics recycling program draft plan and solicit comments on various aspects of the program.

While not a legislated requirement, this outreach initiative was conducted to demonstrate the commitment by EPSC and its membership to make sure that the province's first industry-led regulated stewardship program would work for all Nova Scotians.

The response was overwhelming - 1,134 Nova Scotians participated with approximately 92% of all respondents indicating their overall satisfaction with the plan. While they showed no preference for a particular collection network, respondents did stress that convenient drop-off locations are essential to maximize the success of the program.

Despite more than 80% of responses indicating that a minimum of 26 sites was sufficient, close to a third of all responses did suggest additional locations. This type of feedback was invaluable and guided EPSC and RRFB Nova Scotia in fine-tuning the initial plan document which, as a result, presented a minimum of 33 drop-off sites for improved convenience and geographic coverage. It is this type of advice from concerned Nova Scotians that will help guide ACES in making program enhancements in the future.

For Phase II, ACES again sought feedback on the amendments to the plan from relevant stakeholders. Comments were solicited from the following organizations:

- ACES Members (Brand Owners & Retailers)
- ACES Approved Recyclers & Collectors under contract
- ACES Local Advisory Committee Members & their respective organizations
- Information Technology Industry Alliance of Nova Scotia (ITANS)
- Electronics Product Stewardship Canada
- Retail Council of Canada
- Electro-Federation Canada
- Information Technology Association of Canada
- Canadian Wireless & Telecommunications Association (CWTA)
- Canadian Imaging Trade Association (CITA)
- Electronics Stewardship Association of British Columbia (ESABC)
- Saskatchewan Waste Electronic Equipment Program (SWEEP)
- Alberta Recycling Management Authority (ARMA)
- Information Technology Industry Council (USA)

These organizations were sent detailed information via e-mail on July 14, 2008 requesting their input by July 22, 2008. In addition, the proposed changes for the program were posted on the ACES website for review and input by the general public. A summary of the feedback received specific to the initial plan (for Phase I) and subsequent revision (addressing Phase II) is included in [Appendix F](#).

ACES is committed to continually seeking input on the program as it matures. Omnibus public opinion surveys will continue to be a useful tool to measure awareness and provide information for improvements to the program. As well, the Local Advisory Committee will continue to serve as an important mechanism for local input.

6. Program Details

6.1 Collection and Recycling

As the contracting agent for ACES, RRFB Nova Scotia manages collection, transport, consolidation and recycling services for the program. Key operational components include:

- Collection of program materials in all areas of the province.
- Using a network of drop-off sites to provide adequate, appropriate and convenient free of charge drop-off service to the residential and ICI sectors. At present, there are 37 permanent sites and two satellite (non-permanent) sites servicing the program (see [Appendix E](#) for a listing and corresponding site map).

- Transportation of collected materials either directly or via a consolidation (temporary storage) facility to a contracted primary recycler. At present, two consolidation facilities are utilized – one in Berwick and a second in Sydney.
- Making every effort to maximize recycling activities within the province, where these activities can be demonstrated to be technologically feasible and economically efficient.
- Selection of all service providers through a competitive procurement process.

To ensure that the proposed network of drop-off sites is adequate, appropriate and convenient, RRFB Nova Scotia has established the following criteria for service:

- Rural sites shall be strategically located to ensure that at least 90% of the province's rural population is within a 30 kilometre radius of the nearest drop-off;
- Urban sites in HRM and CBRM shall be strategically located to ensure that at least 50% of their respective urban population is within a 10 kilometre radius of the nearest drop-off;
- Urban and rural sites in HRM and CBRM shall be sited so as to ensure that at least 90% of their respective combined (urban and rural) population is within a 30 kilometre radius of the nearest drop-off;
- All drop-off sites shall be open a minimum of 30 hours per week, including 5 hours on Saturday (except statutory or civic holidays);
- All drop-off sites shall have a minimum of 1,000 square feet of floor space to accommodate the safe and efficient handling of program materials accepted from the general public and ICI sector;
- All drop-off sites shall accommodate scheduled drop-offs of large quantities of program materials from the ICI sector.

Monitoring of the ACES Collection Network:

RRFB Nova Scotia continually monitors the collection network, gauging residential and ICI participation, analyzing material volumes, assessing logistics, and conducting quality control audits on loads collected. Also in consultation with ACES, RRFB Nova Scotia conducts regular reviews to further ensure the collection network meets the needs of Nova Scotians.

The following is a description of the measures that have been or will be implemented with respect to monitoring the ACES collection network.

The ACES toll-free helpline is used as a primary tool to monitor public feedback on both geographic/population coverage and customer service levels provided by our drop-off centre network. All calls relating to these key elements are recorded, reviewed weekly by project management personnel and addressed/resolved promptly, with the exception of concerns relating to geographic coverage which are reviewed regularly but at pre-determined intervals.

With respect to geographic/population coverage, ACES conducts regular reviews to ensure the network meets the needs of Nova Scotians. To ensure adherence to the criteria for service, an annual mapping exercise is commissioned by ACES which keeps actual versus targeted reach measurements current, identifying any service gaps and thereby prompting appropriate adjustments to the collection network.

Data analysis also assists in assessing the effectiveness of the existing collection network. Detailed information on volumes collected is recorded daily by operations staff and is reviewed monthly by project management personnel and relayed to the ACES Board. This will be utilized in addition to “public opinion” survey forums which RRFB Nova Scotia has access to and uses on a regular basis to gauge effectiveness of the programs it administers.

Cell Phone/PDA/Pagers (wireless products):

Nova Scotia Environment has approved a stewardship plan submitted October 14, 2008, by the Canadian Wireless Telecommunications Association. The CWTA program accepts mobile devices that are primarily designed to connect to wireless cellular or paging networks, such as: cellular phones, wireless smartphones, cellular PDAs, pagers, aircards, as well as certain accessories. NSE approved this stewardship plan with the understanding that ACES would be excluding these devices from its program.

How are cellular devices addressed by ACES?

Any non-ACES program materials (i.e. cellular devices) received are handled in the same responsible manner as regular program materials

Program brochures have been utilized as a means to mitigate confusion on the part of consumers and the ICI sector. ACES provides a link on its website, allowing persons with inquiries specific to cellular devices, quick and direct access to information on the CWTA program plan.

6.2 Options for Unwanted Electronics

Listed in order of preference:

Reuse: Reuse of unwanted working electronic products is promoted through the communications and public awareness program as a first and preferred option where markets and opportunities for reuse in-country exist. Respondents to the 2007 electronics recycling survey overwhelmingly supported public awareness messaging of the reuse option.

For Nova Scotia residents considering this option, caution should be exercised and particularly with respect to protection of personal information. To assist the public in making responsible decisions, a series of Frequently Asked Questions can be found at <http://www.cestewardship.ca/ns/FAQ.asp#10>.

ACES, ESABC and SWEEP recently introduced the [Electronics Reuse and Refurbishing Program](#) (ERRP) – designed to foster responsible environmental, safety and social management practices related to the reuse and refurbishing of electronics. The ERRP aims to maximize the amount of materials available for reuse and further ensure that materials entering the reuse stream are utilized to the greatest extent possible. A key component of this program is the Electronics Reuse and Refurbishing Standard (ERRS) which reuse and refurbishing organizations must adhere to in order to be formally endorsed by a stewardship program.

Recycle: Recycling or processing of unwanted and end-of-life electronics is promoted as the final option. Recycling, which diverts electronics waste from landfill and illegal export, is the primary focus of this program. A 2006 Atlantic Canada study indicates that an estimated 92% of the materials in EOL electronic products can be recycled using existing technology⁴. Typically, recycling involves some form of “primary” or initial processing, which may include dismantling and sorting of material by hand or by more elaborate mechanical means. Further manual or mechanical separation of materials by another vendor or vendors is considered “downstream” processing. Material flows are tracked to their “point of final processing”, i.e. where they are altered into a new product or state or, for unrecyclable hazardous materials, to their point of disposal, i.e., where they are disposed of in an environmentally sound manner. ACES requires that its contracted recyclers undergo the [Recycler Qualification Program](#) (RQP) which has its own benchmark, the Electronics Recycling Standard (ERS) which recyclers must adhere to – Section 6.3 provides further detail.

Both the ERRP and the RQP are consistent with the industry’s position that it be in compliance with Canada’s Basel Convention commitments and not allow end-of-life electronics management challenges to be passed on to less developed countries.

6.3 Standard for Recyclers of E-Waste

To ensure that all materials collected under this stewardship program are responsibly recycled, ACES requires that all recycling be conducted by contractors who meet EPSC’s Electronics Recycling Standard (ERS). Adherence to the ERS is a requirement of the contract between primary recyclers and ACES. This dictates that, prior to entering into a contract, the primary recycler must successfully complete EPSC’s Recycler Qualification Program (RQP). The primary recycler must also ensure that any and all (downstream) processors needed for further/additional processing of program materials (beyond primary processing) also successfully complete the RQP prior to receiving ACES material.

Any changes to the primary or downstream processes after initial approval are the responsibility of the primary recycler and this has also been clearly defined in the contract for service. A brief description of the RQP is attached as [Appendix C](#).

ACES currently has three (3) primary recyclers under contract:

1. SIMS Recycling Solutions – Brampton, ON
2. FCM Recycling Inc. – Elmsdale, NS
3. GEEP Inc. – Barrie, ON

⁴ Electronic Waste Recovery Study, Executive Summary, 31-March-2006 – PHA Consulting Associates

6.4 Incidental Municipal Collection

Despite the best of communication and awareness efforts to encourage and direct public participation in any regulated stewardship program, ACES recognizes that full compliance from the residential and ICI sectors is difficult to achieve.

Municipal transfer stations and landfill sites do and will likely continue to receive some program materials despite the provincial ban on these items. They are naturally positioned and have the infrastructure to receive all waste streams and thus some Nova Scotians do and may continue to place banned materials in their garbage bags or bins. These banned materials are then inadvertently collected by municipal or private haulers, ending up at one of these municipal sites.

While several municipal sites are designated drop-offs and receive a fee for service based on weight of program materials collected, remaining municipal sites which are not designated drop-offs are required to separate program materials from the waste stream and temporarily store them until properly directed into the collection and recycling stream.

ACES has provided containers and pick-up of incidental e-waste collected at 21 municipal landfills or transfer stations at no charge. This was implemented shortly before the launch of Phase 1 to locations identified by the municipalities and will continue for the duration of the program unless other arrangements are reached.

Regarding damaged and contaminated program materials, please refer to [Appendix G](#). Please note that these guidelines may be revised periodically to reflect changes in technology, regulatory requirements and industry requirements. These have been shared with both the ACES Drop-off Sites and the municipal sites to aid in clarifying what is acceptable for the program and ensure proper handling.

7. How the Program is Funded

7.1 The Environmental Handling Fee

The program is funded by a visible Environmental Handling Fee (EHF) levied by industry on new products obligated under legislation and sold or distributed into the Nova Scotia marketplace. The program is not funded by taxpayers or government. Industry's visible EHF funding model is clear, transparent, auditable and effectively accommodates the needs of all National, Regional and local obligated stewards. The visible EHF provides for a solid, universal infrastructure that manages all brands and orphaned products effectively, allowing consumers and the ICI sector to drop-off EOL electronic products at designated drop-off sites free-of-charge with the assurance that these items will be responsibly recycled. The ICI sector also has the option of scheduling drop-offs for large quantities of e-waste.

The EHF for each product designated by regulation reflects the true cost of managing that end-of-life product. Industry's visible EHF will fund:

- Collection, handling, consolidation, transportation and recycling;
- Communication and public awareness;
- Administration expenses;
- Environmental audit expenses relating to verifying new or re-verifying existing recyclers against the ERS, including costs related to changes to existing primary

or downstream processors or processing technologies which improve program efficiencies;

- Compliance and enforcement provisions required over and above government measures; and
- Research and Development (R&D) initiatives to allow for continuous improvement of the program.

7.2 Setting the Environmental Handling Fee

Rather than a single flat fee set across all electronic products designated by the Solid Waste-Resource Management Regulations, the fee is set by product category. While the Regulation serves to identify the broader product type, it is ACES that establishes and defines the obligated product categories, determines which electronic products fall under the designated product type and assigns each item to a specific product category for the purpose of applying an appropriate EHF.

At program launch, and in order to harmonize with existing Canadian waste electronics management programs, fees mirrored those charged in British Columbia, Alberta and Saskatchewan.

Subsequently, in 2008, ACES partnered with Electronics Stewardship Association of British Columbia (ESABC) and Saskatchewan Waste Electronic Equipment Program (SWEEP) to commission a project that would:

1. Research and develop an EHF schedule for Phase II products in Nova Scotia; and;
2. Analyze existing EHF schedules to ensure fees accurately reflected costs and to specifically develop and recommend revised EHF's for Phase I products.

The final report for the first component of the project identified above was presented October 31, 2008 ([Appendix H](#)) with the recommended EHF schedule implemented for the Phase II launch February 1, 2009.

The report for the second component identified above was presented April 24, 2009 ([Appendix I](#)) with the recommended product category and EHF adjustments implemented for Phase I products on August 1, 2009.

The analyses and calculations for both reports adhered to the same principles, i.e. fees accurately reflect true program costs and no "cross-subsidization" between product categories. The revised fees for Phase I products marked a departure from consistent EHF's across all three programs but holds to the principle that fees be reflective of actual program costs within each province.

ACES conducts its own cursory review of EHF revenues versus expenditures annually and to further ensure program revenues remain consistent with program expenditures, each of the three industry-led programs has committed to review and assess their respective fee structures in detail every three-year operating period and make any necessary adjustments to correct any surplus or deficit funding patterns which may develop.

ACES requires regular financial reporting from RRFB Nova Scotia to monitor revenue generated by the program and to ensure that funds are sufficient to fund all of the

program activities identified in Section 7.1. Additionally, the program fund is audited annually by an independent external auditor.

Here are the obligated product categories and corresponding applicable EHF:

- **Desktop Computers** – includes desktop computers (including those acting as servers) and all bundled keyboards, mice, cables and internal components: **\$10.50**
- **Computer Peripherals** – includes both wired and wireless manual input devices such as keyboards and/or pointing devices such as mice and trackballs: **\$0.90**
- **Portable Computers** – includes portable computers such as notebook, laptop, netbook and tablet personal computers: **\$2.10**
- **Desktop Printers** – printers designed to reside on a work surface, including laser & LED, inkjet, dot matrix, thermal, dye sublimation and “multi-function” copy, scan, fax and print devices. Standalone desktop scanners and fax machines are also included in this category: **\$6.50**
- **Display Devices** – any display device for displaying images from computers and/or televisions, including professional displays. This includes various display technologies, such as traditional Cathode Ray Tube (CRT), flat panel (LCD, LED and plasma) or rear projection:
 - ≤ 29”: **\$11.50**
 - > 30”: **\$40.00**
- **Personal or Portable Audio/Video Systems** – includes docking speakers, portable stereos, personal CD players, portable audio recorders, tape/radio players, headphones, digital media (MP3) players, voice recorders, digital cameras and video cameras: **\$0.40**
- **Vehicle Audio/Video Systems (Aftermarket)** – includes amplifiers, equalizers, speakers and in-dash audio/video components: **\$2.75**
- **Home Theatre in a Box (HTB) Systems** – includes pre-packaged disc player/speaker/amplifier systems for use with video or television display to create a home theatre experience: **\$6.00**
- **Home Audio/Video Systems** – includes VCRs, DVD and CD players, clock radios, digital cable and satellite equipment, speakers, amplifiers, receivers, data projectors and similar audio/video systems: **\$3.50**
- **Non-cellular Telephones** – includes wire telephones, cordless telephones and telephone answering machines: **\$0.85**

See [Appendix D](#) for a detailed table which identifies and defines obligated product categories, shows the applicable EHF and examples of included and excluded products.

7.3 Funding Flow

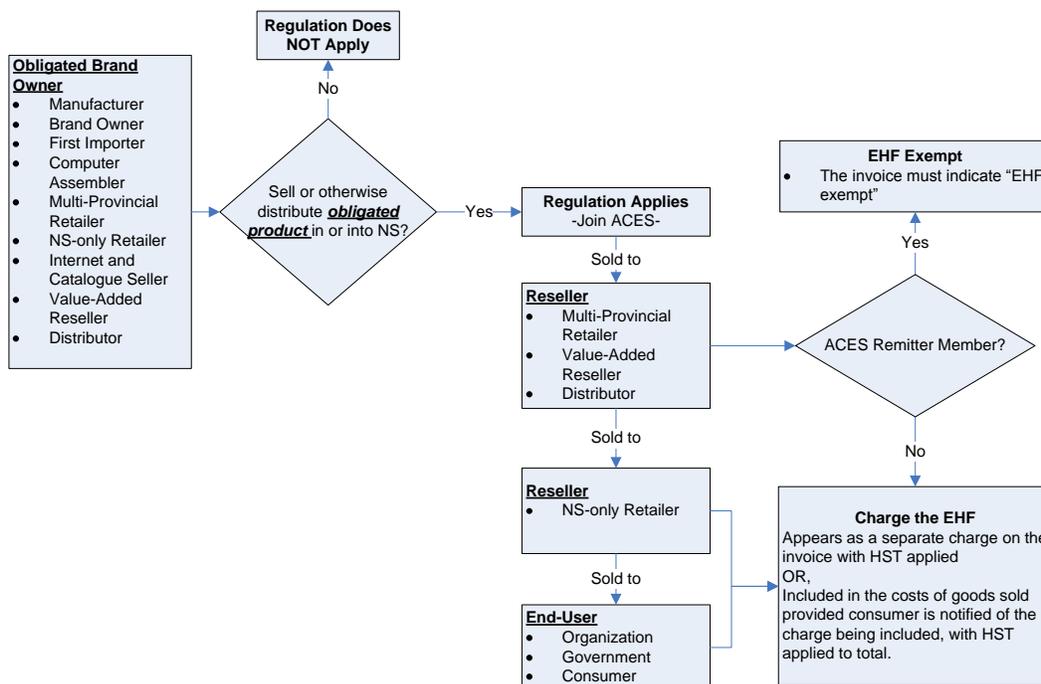
Obligated brand owners registered under the ACES plan are required to remit Environmental Handling Fees monthly to RRFB Nova Scotia for their previous month’s net sales (total sales less returns).

Because the product supply chain is complex and electronics are sold through a variety of channels, each registered brand owner is classified as either a “Remitter” or “Pay-on-Purchase” (POP) member. While a Remitter would usually be a larger entity (e.g. manufacturer, national retailer or distributor), they can also be a small, Nova Scotia-based reseller or retailer. The POP classification was introduced to minimize the administrative burden of monthly reporting on these smaller, local resellers and retailers. However, these smaller, local businesses may chose to be either a Remitter or POP member. Again, in an effort to reduce administrative burden, ACES has recently implemented a policy which allows Remitters to submit quarterly reports, provided EHF amounts collected for a fiscal three-month period do not exceed one-thousand (\$1,000) dollars.

The EHF is applied to a regulated product only once in the supply chain and is paid by the end-user (e.g. consumer, government or an organization). When a Remitter sells to another Remitter, the EHF is not applied. However, if that Remitter member then sells to an end-user, they are responsible for charging the EHF and remitting to ACES.

POP members pay the EHF when they purchase the product from a Remitter (i.e. their supplier) and may choose to pass this fee on to the end-user (e.g. consumer) as a visible fee or build it into the cost of the product. This funding flow is outlined in **Figure 1**. Ownership of the program fund is retained by ACES. RRFB Nova Scotia holds the funds in a trust account and ACES authorizes RRFB Nova Scotia to expend monies from the fund as needed to effectively manage the EOLE Stewardship Program.

Figure 1: Brand owner application of the EHF



8. Communication and Public Awareness

During the program launch, initial efforts focused on two key public communication activities:

- Ensuring consumers were aware of the program including how, when and where they could take their unwanted electronic products for reuse or recycling. This included media buys for radio and newspaper, establishing a program website, and launching a toll-free information line, as well as providing drop-off sites with promotional material; and
- Ensuring the brand owner and retail community had point-of-sale educational material.

Expansion of the ACES Program in February 2009 provided an opportunity to enhance the communications plan. The focus was two-fold – to strengthen current messaging and to introduce the new products acceptable under Phase II.

Communication Goals

A communications plan requires very clear messaging to all existing and any potential new Program stakeholders. In general terms, the goals of ACES' communication activities are to:

- Ensure residential and business consumers are aware of the ACES Program;
- Make sure that the electronic products brand owners and retailers of designated products are aware of their obligations under the program;
- Ensure ACES Drop-off Centre staff are aware of all products included in the Program and can provide accurate information to customers; and
- To minimize the level of incidental waste and clarify the roles of the various stakeholders (i.e. ACES, RRFB Nova Scotia, municipalities, businesses).

Communication Components

All communication materials emphasize the basic details of the program – a key message being that consumers can drop off electronics free of charge. ACES provides signage and brochures to the network of Drop-off Centres. Electronic product retailers also receive brochures and posters, as well as tent cards to be displayed at the point-of-sale. All communication pieces are updated as necessary. ACES will initiate discussions in the future with SWEEP and ESABC to develop an educational program tailored to the retail sector with a focus on enhancing program knowledge and awareness among front-line (customer sales/service) employees.

Media campaigns are utilized on a recurring basis to convey information about the ACES Program. Components of any given campaign may include but not be limited to:

- television advertising, including cable ads;
- radio advertising; and
- print advertisements in newspapers across the province, including provincial, daily and community editions.

The ACES website (www.cestewardship.ca) is an invaluable tool for stewards, consumers and businesses, providing current and practical information on all aspects of the program. The ACES toll free helpline continues to be an important communication tool, providing direct support to registered stewards and the general public.

ACES continues to work with municipalities to support and reinforce the landfill ban on designated electronics. Rejection stickers are provided to allow municipal haulers to leave electronic waste at the curb – an effective tool to reduce the amount of incidental waste arriving at landfills which has since been mimicked by peer programs. In the spring of 2009, ACES supplied regional public awareness funding specifically for the purpose of supporting the launch of Phase II at a grass-roots level. This one-time funding assisted municipalities in promoting the ACES Program expansion through the production of municipal information sheets, newsletters, etc.

Seasonal Activity

ACES will initiate media campaigns for the following seasonal activities:

- Spring cleanup – May/June
- Fall cleanup – September/October
- Christmas – December-January

Other recurring or special events involving collection of program materials may be promoted via media buys at the discretion of ACES.

All media buys/campaigns are subject to annual budget approval and/or limitations.

9. Audit Systems

ACES has adopted and/or implemented audit standards and protocols to assist in ensuring that both its registered members and contracted recyclers achieve and maintain compliance with the ACES Program and governing regulation.

9.1 Auditing of Obligated Brand Owners

ACES has an agreement with RRFB Nova Scotia for the provision of auditing services to audit obligated brand owners. RRFB has an auditor to perform the services and who reports back to RRFB/ACES. Key elements of the audit program are identified below.

Criteria for Audits:

Detailed audits of remitters (brand owners) will be performed on a regular basis to ensure both compliance and completeness in the reporting of revenue. Audit selection will be based on a statistical sampling of remitters. Other selection criteria for detailed audits may include variances in reporting period to period or, a brand owner failing to

report on a regular basis as required. It is intended that the audit program will satisfy the requirements of ACES' appointed external auditors.

Audit Procedures:

Audits will follow established procedures currently used by RRFB and may involve a review of, but not limited to, the following records: sales records, purchase records, inventory counts and bank statements. All brand owners selected for audit will receive a letter detailing the time and place of audit and a request for records to review.

RRFB Nova Scotia will provide regular reports to the ACES Executive Director as required on audits performed including the following performance indicators: new registrant compliance audits, complete audits in compliance, amount assessed through audits, and amount collected on assessments.

9.2 Auditing of Recyclers

ACES requires that its contracted primary recyclers and each of their respective downstream processors be assessed against and verified to the EPSC Electronics Recycling Standard (Version 2.1 - 2006) in order to receive and process program materials. All audits are conducted by an independent environmental auditing firm and in accordance with the EPSC Recycler Qualification Program ([Appendix C](#)). Assessment activities include:

- Mapping the downstream flow of materials – materials generated from a primary recycler are grouped into three main categories: non-hazardous; scrap; and hazardous – they are sent to market; to sub-vendors for further processing or recovery; or to disposal vendors;
- Document audit – all downstream vendors must show, on paper, that they are compliant with the ERS, identifying any potential regulatory non-compliance issues, verifying commercial arrangements and material volumes handled;
- Onsite audit – all primary recyclers are subject to this audit, as are processors of materials considered scrap or hazardous. However, if some of the materials resulting from processing scrap or hazardous materials are considered non-hazardous, the downstream processor of those materials may not require an onsite audit; and
- Final assessment – includes: mapping of downstream flow of materials including a mass balance of materials (units received for processing vs. tonnes processed); results of document and onsite audits; and confirmation that the primary recycler and its sub-vendors are compliant with the ERS.

The approval of a primary recycler and downstream vendors is, at minimum, valid for a period of three (3) years, at which time a re-assessment is required. Approvals conducted using the RQP process may be recognized in multiple jurisdictions at the discretion of the governing provincial stewardship organization. Where a primary processor changes its processing technology and/or downstream processors, they shall be subject to audit procedures to ensure any and all changes conform to the ERS.

Please note that the RQO and ERS may be revised from time to time as technological advancements are introduced to either the manufacturing or recycling processes for electronic products or to reflect regulatory and industry requirements. EPSC has introduced a revised Electronics Recycling Standard (2010) and ACES has adopted this version.

ACES and its peer organizations, including ESABC, SWEEP, Ontario Electronic Stewardship (OES) and Alberta Recycling Management Authority (ARMA), participate in a National Technical Committee forum which monitors revisions to the ERS and provides comment and recommendations to EPSC from time to time regarding changes to this standard.

9.3 Performance Measurements and Continuous Improvement

In 2009, ACES partnered with ESABC, SWEEP and Ontario Electronic Stewardship (OES) to release an RFP to examine performance reporting of existing electronics recycling programs in both North America and abroad and bring forward recommendations for a core suite of performance indicators. InterGroup Consultants was commissioned to conduct the study and submitted a final report in February 2010 ([Appendix J](#)) which was subsequently approved by the four programs. Findings revealed a wide range of measures across five common areas.

ACES and its partner programs for this initiative have committed to annually report these recommended core set of measurements:

Indicator

Operational	<ul style="list-style-type: none"> ✓ Total WEEE collected (tonnes) ✓ Total WEEE collected per capita (tonnes)
Financial	<ul style="list-style-type: none"> ✓ Total program costs per tonne ✓ Operational costs per tonne ✓ Overhead costs per tone
Accessibility	<ul style="list-style-type: none"> ✓ Percent of population covered by collection sites ✓ Total collection sites ✓ Total collection events
Awareness	<ul style="list-style-type: none"> ✓ Percentage of population aware of the program
Environmental Impact	<ul style="list-style-type: none"> ❖ Total weight of material recycled as percentage of material collected (by weight) ❖ Greenhouse gas emissions ❖ Mass balancing ❖ Trends in processing
<p>Legend:</p> <ul style="list-style-type: none"> ✓ Immediate collection and reporting ❖ Future/in development 	

With respect to program “Awareness” above, an evaluation of the communication and public awareness tools used may also be conducted to determine the strategy’s effectiveness in getting the message out to the public.

The program will be continuously monitored for opportunities to make improvements, both from an operational and strategic perspective. Other issues to be reviewed on an ongoing basis include:

- The definition of obligated products to ensure the industry is current with changes in the marketplace and the end-of-life stream.
- Electronics waste management developments in other jurisdictions.
- Methods to acknowledge environmental efforts of companies who may be advocating and promoting green procurement through the use of programs such as the Electronic Product Environmental Assessment Tool (EPEAT) or Energy Star. This will include, but not be limited to, calculating environmental benefits of these green procurement programs and the resulting DfE impacts/improvements.
- Further, as part of continuous program improvement, the program will examine market-based incentives to reward, in an economical and efficient manner, those producers making environmental investments including potential options such as eliminating visible fees and/or moving toward a cost internalization model.
- A percentage of the collected fees will be devoted to continuous program improvement, including research and development initiatives as indicated in Section 7.1. To facilitate these initiatives, ACES established the Effectiveness and Efficiency (E&E) Fund which will be used to source and promote best practices for the collection, transportation and processing of EOLEs and ensure overall continual reduction of environmental impacts of the ACES program.

10. Program Milestones

Below is a listing of key Nova Scotia Program milestones achieved or targeted since the introduction of the Solid Waste-Resource Management Regulations.

1. Product stewardship plan submitted	01-Aug-07
2. Product stewardship plan receives approval	04-Oct-07
3. Formal governance structure (ACES) incorporated	27-Nov-07
4. Phase I Program launch	01-Feb-08)
5. Revised Phase II amendment to plan submitted	11 Dec 2008
6. Revised Phase II amendment receives approval	12 Dec 2008
7. Phase II Program launch	01 Feb 2009
8. Revised Phase I product fees introduced	01-Aug-2009
9. ACES adopts Electronics Reuse & Refurbishing Standard	01-Jun-10
10. Full review of EHF’s for all (Phase I and II) regulated products	01-Aug-12

Appendix A

EPRA Board of Directors:

EPSC Directors (4)

- Lloyd Bryant, VP and GM, Hewlett Packard Canada
- Mike Watson, Director of Compliance, Dell Global Takeback
- Nick Aubry, Director, Environment, Vendor Management, Sony Canada
- Rene Zanin, General Counsel, Toshiba of Canada Ltd.

RCC Directors (4)

- Grant McTaggart, VP of Administration, Best Buy
- Pete Gibels, VP of Merchandising, Staples
- Clint Mahlman, Senior VP of Operations, London Drugs
- Allen Langdon, VP of Sustainability, RCC

Business to Business Directors (2)

- Harry Zarek, President and CEO, Compugen
- Mary Ann Yule, CEO of CDW

Independent Directors: 2 to be named

Observer: Shelagh Kerr, President & CEO, EPSC

EPRA Staff:

Cliff Hacking, President & CEO

Lynda Kitamura, Chief Financial Officer

Dennis Neufeld, Manitoba Program Manager

Jay Illingworth, Harmonization Director

Sean DeVries, RQO Director

ACES Staff:

Gerard MacLellan, Executive Director

Tracy Lewis, Executive Assistant

The Local Advisory Committee:

Gerard MacLellan, ACES (co-chair)

Dale Lyon, RRFB Nova Scotia (co-chair)

Kay Crinean, Computers for Schools (NS)

Janelle Frail, Nova Scotia Environmental Network

Nicole Haverkort, (NS) Regional Waste Reduction Coordinators

Jillian Isenor, Clean Nova Scotia

Jamie McManaman, Computers for Schools (PEI)

Debbie Nielsen, Union of Nova Scotia Municipalities

Observer status:

Nicole Perry, Nova Scotia Environment

John Hughes, PEI Department of Environment, Labour and Justice

Appendix B

Supporting Associations, Organizations and Members

Associations and Organizations:

Electro-Federation Canada

Electro-Federation Canada is a national, not-for-profit industry association. Together, its six councils represent over 300 member companies that manufacture, distribute, and service electrical, electronic, and telecommunications products, contributing over \$50B to the Canadian economy.

Information Technology Association of Canada

ITAC is the voice of the Canadian information and communications technology industry. Together with its affiliated organizations across the country, the association represents 1,300 companies in the information and communications technology (ICT) industry in all sectors including telecommunications and Internet services, ICT consulting services, hardware, microelectronics, software and electronic content. ITAC's network of companies accounts for more than 70 per cent of the 566,000 jobs, \$130 billion in revenue, \$5.2 billion in R&D investment, \$20.7 billion in exports and \$11.5 billion in capital expenditure that the sector contributes annually to the Canadian economy.

Electronics Product Stewardship Canada

Electronics Product Stewardship Canada (EPSC) is a not-for-profit, industry-led organization. Its membership is comprised of more than twenty leading Canadian electronics manufacturers that are working to design, promote and implement sustainable solutions for the recycling of end-of-life electronics. EPSC members have taken an environmental leadership role by working with stakeholders to create effective industry-led environmental stewardship programs across Canada, by investing in design for environment improvements to their products and processes, and by establishing an innovative vendor qualification program for the responsible recycling of end-of-life electronics.

Retail Council of Canada

Founded in 1963, Retail Council of Canada is the voice of retail. RCC is a not-for-profit association with more than 40,000 store fronts representing all retail formats, including national and regional department stores, mass merchants, specialty chains, independent stores and online merchants.

ACES Members

A current listing is available at: <http://www.cestewardship.ca/ns/brand-owners.asp>

Appendix C

Recycler Qualification Program

from www.epsc.ca

Recycler Qualification Program

The **Recycler Qualification Program (RQP)** defines the minimum requirements for EOLE processors and recyclers to be considered for use under the ACES program. The intent of the RQP is to ensure that EOLE products are managed in an environmentally sound manner that safeguards worker health and safety, and the environment from the point of primary processing to the point of final disposition.

The RQP consists of 8 parts:

PART A - ELECTRONICS RECYCLING STANDARD (ERS): Defines the minimum requirements for handling EOLE and materials for the Primary and all Downstream Recyclers until each material reaches the point of final disposition. The ERS includes environmental, occupational health and safety, and material handling requirements that are the auditable criteria that Recycler assessments and approvals are based upon. Recyclers are responsible for maintaining objective evidence of conformance to all requirements of the ERS.

PART B - IMPLEMENTATION GUIDE: Supplements the ERS by providing guidance to both Recyclers and ERS Auditors on the application of the elements of the ERS and also provides resources on some of the key environmental, health and safety issues associated with handling and processing EOLE. Not all examples provided in the Implementation Guide will be applicable to all organizations. However, where applicable, the Implementation Guide defines the minimum best practices required. If a Recycler chooses to implement an element other than defined in the Implementation Guide, the Recycler must demonstrate that the alternative measures provide an equivalent level of control.

PART C - RECYCLER ASSESSMENT AND APPROVAL PROCESS: Defines the steps for initiating and conducting Recycler assessments under the RQP and also outlines the communication protocols between the Stewardship Program, ERS Auditor, Primary and Downstream Recyclers.

PART D - ONGOING RECYCLER SURVEILLANCE AND RE-VERIFICATION: Defines the processes for the ongoing monitoring and surveillance of approved Recyclers to ensure their continuing ability to meet the requirements of the ERS, and includes: the steps to request changes to an approved process; Recycler reporting and spot audit requirements; and the re-verification process to maintain recognition under the RQP following the initial approval phase.

PART E - AUDIT PROTOCOLS: Defines the criteria for classifying audit findings, and communicating audit results to the auditee and the Stewardship Program.

PART F - APPROVED RECYCLER RECOGNITION: Defines the framework for recognizing Recyclers that are audited and approved for use under the Stewardship Program.

PART G - TERMS AND DEFINITIONS: A glossary of acronyms and key terminology.

PART H - FORMS:

H.1 Recycler Application Form

H.2 Audit Report Form

The document is available on-line from EPSC at: <http://www.epsc.ca/pdfs/RQP-2010.pdf>

Appendix D



ACES / ESABC / SWEEP PROGRAMS
PRODUCT DEFINITIONS AND CLARIFICATIONS
 REVISED: February 22, 2011 – APPROVED BY ACES

PHASE 1 – OBLIGATED AS OF: **ACES – FEBRUARY 1, 2008** **ESABC – AUGUST 1, 2007** **SWEEP – FEBRUARY 1, 2007**

OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT <u>NOT</u> INCLUDED IN THE OBLIGATED CATEGORY
DESKTOP COMPUTERS	<p>A computer terminal designed to reside on a desk or similar work surface</p> <p>May be packaged with a mouse, keyboard, cables, speakers, webcam and other peripherals in a single Original Equipment Manufacturer (OEM) package carrying a single SKU, subject to a single desktop computer EHF.</p> <p>Includes desktop computers and desktop computers acting as servers.</p>	<p>Desktop computer -</p> <p>ACES: \$10.50</p>	<p>Standalone:</p> <ul style="list-style-type: none"> Computer terminal Desktop computer used as a server Thin client 	<ul style="list-style-type: none"> Non-standalone computer terminal that is embedded into a non-regulated product Rack mounted and floor-standing server Uninterruptible Power Supply (UPS) Cash registers / POS terminals
PORTABLE COMPUTERS	<p>A personal computer designed for portable use</p>	<p>Portable computer -</p> <p>ACES: \$2.10</p>	<ul style="list-style-type: none"> Laptop computer Notebook computer Tablet computer Netbook computer 	<ul style="list-style-type: none"> PDA (non-cellular enabled) – SEE PERSONAL/PORTABLE category: PRODUCTS INCLUDED Calculator Other handheld computing devices

OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT NOT INCLUDED IN THE OBLIGATED CATEGORY
DISPLAY DEVICES	<p>A non-portable video display device that typically resides on a table, floor or wall and requires AC power to operate</p> <p>May contain an imbedded television tuner, or may be used for displaying images from computers or other digital or analog sources such as an external TV tuner or cable/satellite receiver.</p> <p>Includes various display technologies, such as CRT, flat panel (LCD, Plasma, LED, OLED, etc.) or rear projection.</p>	<p>Display device w/ diagonal screen size -</p> <p>ACES: ≤ 29": \$11.50 > 29": \$40.00</p>	<p>Standalone:</p> <ul style="list-style-type: none"> • Television • Computer monitor • Professional display • Closed circuit monitor screen 	<ul style="list-style-type: none"> • Non-standalone displays that are embedded into a non-regulated product • Digital photo frames – SEE PERSONAL/PORTABLE A/V category: PRODUCTS INCLUDED • POS Pole Display • Refrigerator with built in TV • Electronic whiteboards • 3D Glasses • Portable Displays less than 10" – SEE PERSONAL/PORTABLE A/V category: PRODUCTS INCLUDED
DESKTOP PRINTERS AND FAX MACHINES	<p>A printing or facsimile device designed to reside on a desktop or similar work surface</p> <p>May be a "multi-function" or "all in one" device that performs different tasks such as copy, scan, fax, print, etc., in which case the integrated product is subject to a single EHF.</p> <p>Fax machines packaged with cordless telephone handsets in a single OEM packaged under a single SKU are subject to one EHF.</p> <p>Includes various printing technologies, such as Laser & LED (electrophotographic), ink jet, dot matrix, thermal, dye sublimation, etc.</p>	<p>Desktop Printer -</p> <p>ACES: \$6.50</p>	<p>Standalone:</p> <ul style="list-style-type: none"> • Desktop printers • Camera dock printers • Desktop label, barcode, card printers • Desktop fax machines 	<ul style="list-style-type: none"> • Floor standing printers • Point of sale (POS) receipt printers • Handheld printers such as calculators with printing capability or label-makers • Non-standalone printers that are embedded into non-regulated products

OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT NOT INCLUDED IN THE OBLIGATED CATEGORY
COMPUTER PERIPHERALS	<p>A manual input keying or pointing device, such as a mouse, a keyboard, or a similar device, designed for use with a desktop or portable computer.</p> <p>Includes both wired and wireless devices.</p> <p>A combination of a single mouse and a single keyboard packaged in one OEM box under a single SKU is subject to one EHF.</p>	<p>Mouse, keyboard, or a mouse and keyboard combination -</p> <p>ACES: \$0.90</p>	<ul style="list-style-type: none"> • Mouse • Trackball • Keyboard • Keypad • Touchpad Mouse 	<ul style="list-style-type: none"> • Joysticks and other game controllers • Graphic tablets • Stylus • Magnetic stripe readers • Modems, Hubs, Switches and Routers • Mobile internet sticks

PHASE 2 – OBLIGATED AS OF: ACES – FEBRUARY 1, 2009 ESABC – JULY 1, 2010 SWEEP – APRIL 1, 2010				
OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT NOT INCLUDED IN THE OBLIGATED CATEGORY
DESKTOP COMPUTER SCANNERS	<p>Desktop imaging equipment designed for use in conjunction with a personal computer or network system that converts hard copy data such as text, photos, etc., into an electronic file</p>	<p>Scanners -</p> <p>ACES: \$6.50</p>	<ul style="list-style-type: none"> • Desktop computer scanners • Desktop Business card scanners • Desktop Cheque scanners • Desktop Photo negative scanner 	<ul style="list-style-type: none"> • Floor standing drum scanners • MRI equipment • Barcode scanners • Cables or other accessories

<p>PERSONAL / PORTABLE AUDIO/VIDEO PLAYBACK AND/OR RECORDING SYSTEMS</p>	<p>A portable device used primarily for personal use, that operates on battery power or is powered directly from the device it is connected to (i.e. computer), including:</p> <ul style="list-style-type: none"> • Clock radios • Computer docking speakers • Compact/folding speakers • Portable stereos/ tape players/ radios • Personal CD players • Portable audio recorders • Headphones • Computer / phone and/or voice recorder microphones • MP3 players • Voice recorders • Analog and digital cameras and video cameras/ camcorders • Non-cellular enabled PDAs • Portable scanners • Portable printers • Webcams • Digital frames • Portable displays <p>Portable audio/video players supplied with accessory headphones in a single OEM package under a single SKU are subject to one EHF.</p> <p>Multiple speakers supplied in a single OEM package and sold under a single SKU are subject to one EHF.</p>	<p>Personal/Portable Audio/Video Playback and Recording Systems: \$0.40</p>	<ul style="list-style-type: none"> • Portable AM/FM radios • Clock radios • Portable stereos • Portable tape players/recorders • Portable Disc (CD, DVD,Blu-ray, etc.) players/ recorders • MP3 players • Portable docking/compact speakers (wired and wireless including Wi-Fi or Bluetooth) • Portable cassette or digital audio/voice recorders • Headphones • Mini earphones and microphones • Headsets (wired and wireless, including Bluetooth) • Microphones for use with an obligated product • Digital and non-digital cameras • Digital photo key chains • Video cameras/ camcorders • Personal Digital Assistants (PDAs) which are not enabled to connect to cellular networks • Multi-function satellite radios that include CD, MP3, FM radio or other audio functions • Portable scanners (business card scanners; photo negative scanners) • Portable printers • Web cameras • Digital frames • Portable displays – screen size less than 10” • Baby video monitor and camera systems 	<ul style="list-style-type: none"> • Single-use or one-time use cameras • Children’s toy cameras • Discs (CDs, DVDs, Blu-ray, HDDVD, etc.) • Commercial, Professional or industrial video cameras and/or microphones • Industrial/commercial quality microphones used for musical recording, performances and/or public address • Cables or other accessories • Cellular-enabled PDAs • Industrial or commercial handheld or mobile computing devices • Global Positioning System (GPS) receivers and components • Satellite radio receivers and components (used exclusively for satellite audio) • E-readers / electronic Books • Electronic Dictionaries • 3D Glasses • Two-way radios (<u>walkie-talkies</u>) • Personal FM transmitters
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<p>HOME AUDIO/VIDEO PLAYBACK AND/OR RECORDING SYSTEMS</p>	<p>Audio and video playback and/or recording systems (mini/mid/full size) or system components for residential use but may also be used for institutional, commercial or industrial applications, including:</p> <p>Audio equipment:</p> <ul style="list-style-type: none"> • Amplifiers • Receivers • Speakers • CD players (single and multi-disc units) • Radios • Turntables • Cassette and other tape players <p>Video equipment:</p> <ul style="list-style-type: none"> • Data/multi-media projectors • VCRs • DVRs • PVRs • DVD players • Blu-ray players • Laser Disc players • Security cameras <p>Cable and Satellite TV Equipment</p> <p>Multiple speakers supplied in a single OEM package and sold under a single SKU are subject to one EHF.</p> <p>Multiple security cameras supplied in a single OEM package and sold under a single SKU are subject to one EHF.</p>	<p>Home Audio/Video Playback and Recording Systems/Components: \$3.50</p>	<ul style="list-style-type: none"> • AM/FM Radios • Video Cassette Recorders (VCRs) • Digital Video Recorders (DVRs) • Personal Video Recorders (PVRs) • Disc players/ recorders (DVD, Blu-ray, etc.) • Laser Disc players/recorders • Cable & satellite receivers • Set-top boxes including digital TV <p>Home stereo systems or components, including:</p> <ul style="list-style-type: none"> • Amplifiers • Receivers • CD or tape decks • Turntables/record players • Home speaker systems such as 5.1 and 7.1 speaker packages supplied without amplifier or video player, including computer (multi-media) speakers • Other digital music recorders/players • Audio docking stations <ul style="list-style-type: none"> • Analog & digital video cameras for home security or other closed circuit home use 	<ul style="list-style-type: none"> • Industrial/commercial quality amplifiers, speakers and related equipment used for musical recording, performances and/or public address • Video gaming equipment, including those that can also play DVDs, etc. • Satellite dishes • Cables or other accessories • Karaoke machines • Alarm clocks and wall clocks • Audio baby monitors and receivers • Intercoms • 3D Glasses • Overhead projectors • Web cameras – SEE PERSONAL/PORTABLE A/V category: PRODUCTS INCLUDED • Digital Frames – SEE PERSONAL/PORTABLE A/V category: PRODUCTS INCLUDED • Clock radios – SEE PERSONAL/PORTABLE A/V category: PRODUCTS INCLUDED
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OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT NOT INCLUDED IN THE OBLIGATED CATEGORY
HOME THEATRE IN A BOX (HTB) SYSTEMS	Audio and/or video equipment packaged by an OEM as a complete system intended to provide an “in-home” theatre experience.	Home Theatre in a Box (HTB) Systems: \$6.00	HTB audio and video equipment packaged as a complete unit, including: amplifiers, disc players, speakers, sub-woofers and all associated cables, etc.	<ul style="list-style-type: none"> • Home speaker systems – SEE HOME A/V category: PRODUCTS INCLUDED
VEHICLE AUDIO & VIDEO SYSTEMS	<p>Aftermarket audio and/or video systems or system components intended to replace or supplement OEM factory-installed systems or system components.</p> <p>Multiple speakers supplied in a single OEM package and sold under a single SKU are subject to one EHF.</p>	(Aftermarket) Vehicle Audio & video Systems/Components: \$2.75	<p>Aftermarket vehicle audio & video components, including:</p> <ul style="list-style-type: none"> • In-dash radio, DVD, CD and/or cassette players (including those with integrated satellite radio and/or GPS/navigation functions) • Amplifiers • Equalizers • Speakers • Video player systems • Video displays (including those with built-in tuners) 	<ul style="list-style-type: none"> • Factory-installed audio and video equipment developed for imbedded use in motor vehicles of any type (includes marine-craft radios and intercom systems) • Standalone or in-dash navigation systems (e.g. GPS receivers and components) that are not integrated with other A/V components • Satellite radio receivers and components • Back-up camera systems • Related cables or other accessories

OBLIGATED PRODUCTS	PRODUCT DEFINITION	ENVIRONMENTAL HANDLING FEE (EHF)	PRODUCTS INCLUDED IN THE OBLIGATED CATEGORY	PRODUCT NOT INCLUDED IN THE OBLIGATED CATEGORY
NON-CELLULAR TELEPHONE S AND ANSWERING MACHINES	<p>A telecommunication device with a handset, multiple handsets or microphone and speaker systems that is used to transmit and receive sound (most commonly speech).</p> <p>A device that is designed to record sound from incoming calls over a telephone line or VOIP line.</p> <p>Accessory handsets packaged with a telephone in a single OEM package under a single SKU are subject to one EHF.</p> <p>Accessory speakers/microphones packaged with a speaker/conference phone in a single OEM package under a single SKU are subject to one EHF.</p>	<p>Non-cellular telephones and answering machines: \$0.85</p>	<ul style="list-style-type: none"> • Telephones (corded and cordless, VoIP, satellite phones) • Telephone line answering machines (cassette and digital) • Speaker/Conference Phone 	<ul style="list-style-type: none"> • Telecommunications equipment developed for imbedded use in motor vehicles of any type • Two-way radios (<u>walkie-talkies</u>) • Commercial-grade “pay phones” • Audio baby monitors and receivers • Fax machines – SEE PRINTERS category: PRODUCTS INCLUDED

NOTES:

1. Products included / excluded are examples based upon member inquiries but do not represent an exhaustive list of all obligated products by category. Members must assess products against the definitions of each obligated product category to determine the applicability and appropriate EHF, and may consult the program for assistance in clarification where required.
2. Products identified as ‘Included in the Obligated Category’ are subject to the EHF for that category; Products identified as ‘Not Included in the Obligated Category’ are not subject to the EHF for that category, however, members must consider all obligated product categories to determine if the product meets the definition of another obligated product category.
3. There are two instances where multiple obligated products may be packaged by the original equipment manufacturer (OEM) in a single physical package carrying a single SKU (stock-keeping unit) and be subject to one EHF for the entire package of products:
 - a. Where the product definition above specifically includes multiple obligated products, or
 - b. Where a product is comprised of different functional components that are sometimes sold separately, but in this case are integrated into a single operating unit. In this instance the integrated product carries the single highest EHF. Examples include:
 - Phase I*
 - All-in-One computer system (desktop CPU with integrated display device)
 - Display device with integrated video player (DVD, VCR, Blu-ray, etc.)
 - Printer / Scanner / Fax (all-in-ones)
 - Phase II*
 - Multiple drive players integrated into a single device – e.g. DVD & VCR player
 - Fax machine with a corded telephone handset
 - Telephone with built-in answering machine
 - Security display monitor with built-in digital video recorder (DVR)
4. **The list of Product Definitions and Clarifications may be revised periodically by the Program.**

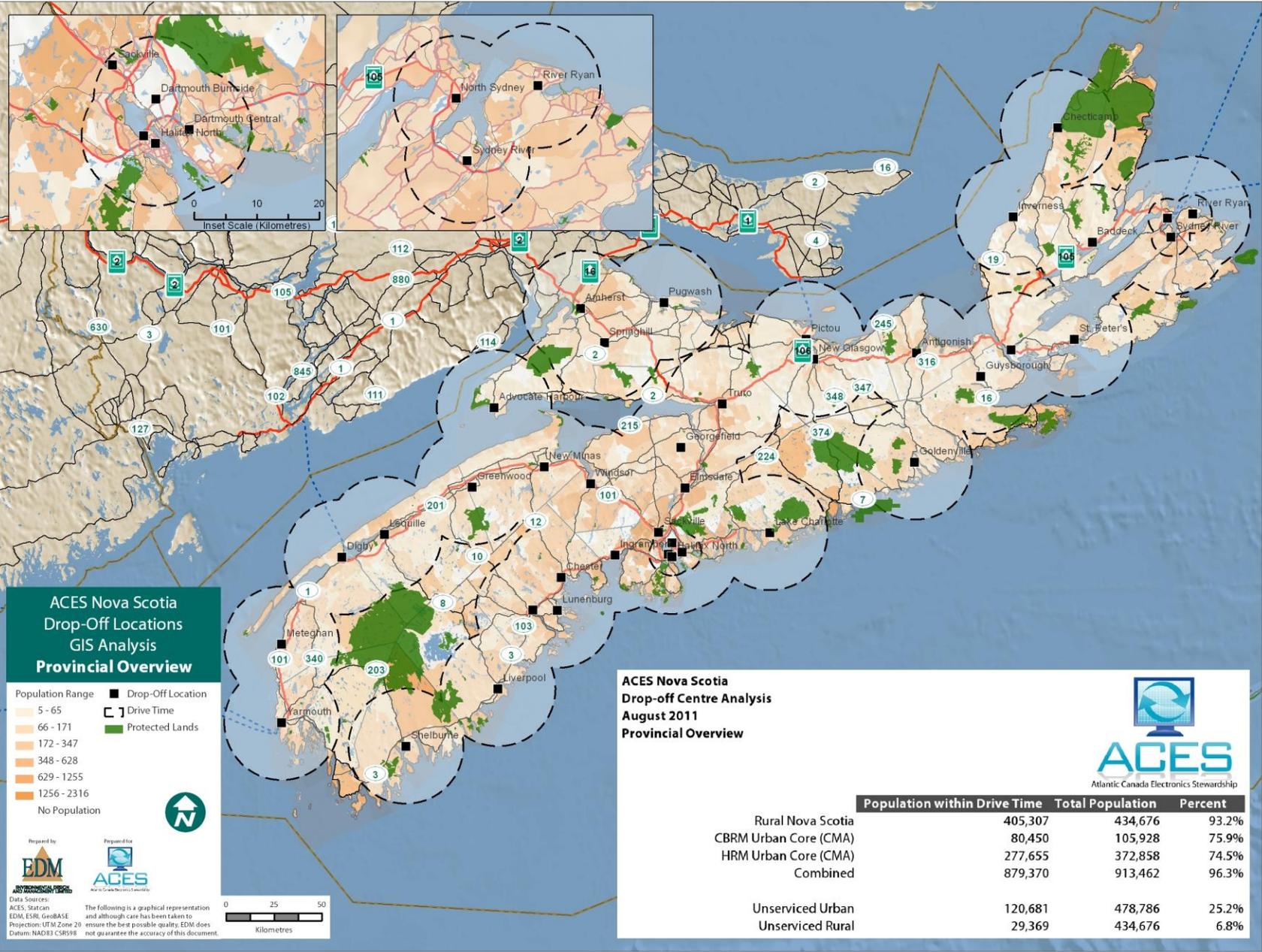
Appendix E

ACES Drop-off Centres

Region	Civic Address	Open Hours
Region 1 - Cape Breton		
CBRM 1 - Sydney River	434 Keltic Drive	Mon-Fri 8-5 & Sat. 8-4
CBRM 2 - North Sydney	96 King Street, Building 2	Mon-Sat 9-4
CBRM 3 - New Waterford	5559 Union Highway	Mon-Fri 10-5 & Sat. 10-2
St. Peter's	9395 Highway 4	Mon, Tue & Thur-Sat 9-4:30
Port Hawkesbury	17 Paint Street	Mon-Sat 9-4:30
Baddeck	445 Margaree Road	Mon-Sat 8-4
Inverness	15109 Highway 19, Strathlorne	Mon-Fri 7-4 & Sat 8-1
Cheticamp	16320 B Cabot Trail Road	Mon-Sat 10-4/Tue-Fri 10-1, Sat 10-3 (Winter)
Region 2 - Eastern		
Antigonish	1356 Beech Hill Road	Mon-Fri 8-4:30 & Sat 8-12
Pictou	28 Depot Street	Mon-Fri 9-4:30 & Sat 9-2
New Glasgow	2636 Westville Road	Mon-Sat 8-5
Guysborough	151 Waste Management Road, Rte 16	Mon-Fri 8:30-4 & Sat 8-12
Goldenville	150 Cape Geoggan Road, Highway 7	Tue-Sat 9-4
Region 3 - Central		
Elmsdale	75 Park Road	Mon-Sat 9-4
Georgefield	1306 Georgefield Road	Mon-Fri 8-4 & Sat 8-12
Truro	25 Pictou Road	Mon-Fri 8-5 & Sat 8-12:30
Pugwash	8660 Sunrise Trail, Route 6	Mon-Sat 10-5/Thur-Sat 10-5 (Winter)
Amherst	23 Tupper Boulevard	Mon-Sat 9-2
Springhill	37 Junction Road	Mon-Fri 10-5 & Sat 9-1
Advocate Harbour	3522 Highway 209	Mon-Fri 9-4 & Sat 9-5
Region 4 - HRM		
HRM 1 - Halifax Central	3791 MacKintosh Street	Mon-Sat 8-5
HRM 2 - Dartmouth Central	99 Woodlawn Road	Mon-Sat 8:30-5:30
HRM 3 - Sackville	15 Sackville Cross Road	Mon-Sat 8-5
HRM 4 - Halifax North	2651 Clifton Street	Mon-Sat 8:30-5
HRM 5 - Ingramport	8134 St. Margaret's Bay Road	Tue-Sat 8-5
HRM 6 - Dartmouth Burnside	66 Simmonds Drive	Mon-Sat 8-4:30
HRM 7 - Lake Charlotte	11470 #7 Highway	Thur & Sat 10-3 & on-call Mon-Wed & Fri
Region 5 - Valley		
Greenwood	1070 Central Avenue	Mon-Fri 9-5 & Sat 9-3
New Minas	8985 Commercial Street	Mon-Fri 9-5 & Sat 9-2
Lequille	9551 Route 8	Mon-Fri 8:30-4:30 & Sat 9-3
Region 6 - South		

Gold River	5962 Gold River Road	Mon-Fri 9-5 & Sat 9-1:30
Windsor	79 Centennial Drive	Mon-Fri 8:30-4 & Sat 9-1
Lunenburg	364 Highway 324	Mon-Fri 8-6, Sat 8-5 & Sun 12-5
Bridgewater	2519 Oakhill Road	Saturday 9-2
Liverpool	4886 White Point Road	Saturday 9-2
Shelburne	400 Clover Street	Mon-Fri 9-4 & Sat 8:30-1
Region 7 - Western		
Yarmouth	236D Water Street	Mon-Sat 8-3:30
Meteghan	8659 Highway 1	Mon-Fri 9-5 & Sat 9-3
Digby	63 Shreve Street	Mon-Fri 8-4:30 & Sat 8-1
Legend: Mobile (satellite) service only		

Reference: See attached map for an accurate visual of current geographic coverage and population reach referenced in Section 6.1



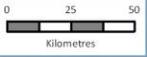
**ACES Nova Scotia
Drop-Off Locations
GIS Analysis
Provincial Overview**

- Population Range
- 5 - 65
- 66 - 171
- 172 - 347
- 348 - 628
- 629 - 1255
- 1256 - 2316
- No Population
- Drop-Off Location
- Drive Time
- Protected Lands



Data Sources:
ACES, Statcan
EDM, ESRI, GeoBASE
Projection: UTM Zone 20
Datum: NAD83 CSRS98

The following is a graphical representation and although care has been taken to ensure the best possible quality, EDM does not guarantee the accuracy of this document.



**ACES Nova Scotia
Drop-off Centre Analysis
August 2011
Provincial Overview**



	Population within Drive Time	Total Population	Percent
Rural Nova Scotia	405,307	434,676	93.2%
CBRM Urban Core (CMA)	80,450	105,928	75.9%
HRM Urban Core (CMA)	277,655	372,858	74.5%
Combined	879,370	913,462	96.3%
Unserviced Urban	120,681	478,786	25.2%
Unserviced Rural	29,369	434,676	6.8%

Appendix F

Public Consultation – Summary

Phase I

To gauge public opinion on the Draft End-of-Life Electronics Stewardship Plan for Nova Scotia, RRFB Nova Scotia launched an on-line survey which ran from July 12 until July 25, 2007. The draft plan and the survey were widely advertised via print newspaper ads in the daily, provincial and community papers; on-line ads in the Chronicle Herald and Transcontinental on-line editions; ads on the Eastlink community cable television; and direct e-mail notices sent to business and community contacts. All businesses, municipalities, schools, community groups, and individuals were invited to visit RRFB Nova Scotia's website to read the plan and complete the survey. Those who did not have access to a computer could call RRFB Nova Scotia and complete the survey over the phone. Completed surveys were entered into a draw for a new laptop computer.

A total of 1,134 people evenly split between rural and urban Nova Scotia completed the survey. It should be noted that this survey was designed to gauge public opinion of the electronics recycling plan but is not statistically reliable since no random sampling was done and only those who were interested in commenting did so. However, the responses are still a good window into the public mood regarding the electronics recycling program.

The survey was a combination of sixteen closed and open-ended questions and took about ten minutes to complete. Many people chose to answer open-ended questions voicing their opinion about the overall electronics recycling program, collection networks, and how electronics should be processed.

Overall, most people who completed the survey were either very satisfied (49%) or somewhat satisfied (43%) with the electronics recycling plan as presented. There were 299 open-ended comments to this question that ranged from complaints about the lack of adequate collection facilities and the need for a car to transport unwanted electronic equipment to a collection site, to paying environmental handling fees and not getting a refund. Many respondents commented that there should be more emphasis on reusing electronic equipment in the plan.

When asked what additional electronic equipment should be included, 590 respondents suggested items that are listed in Phase II of the program and other electronics devices such as small appliances, gaming devices, radios, cameras, etc.

Survey respondents were asked a series of questions about collection networks. These results indicate that convenience is top-of-mind for respondents and a variety of responses were received. Overall 21% strongly agreed and 60% agreed that 26 drop off sites were sufficient to provide convenient access to the public. However there were 316 comments about this question which ranged from allowing curbside collection for electronics to using C@P sites as drop-off locations, and making sure that it was convenient for seniors and people without their own transportation. When asked what other drop-off sites should be considered, 369 people suggested additional locations.

When asked if they favoured Enviro-Depots as electronics collection sites, 84% were in favour of using the existing depot network. When asked if municipal transfer stations or landfills should be considered as drop-off sites, 83% were in favour of this alternative. 69% of respondents agreed that community workshops should be used as drop-off sites for the program. Again convenience was considered the number one concern among those who provided open-ended responses to the questions about collection networks for the Electronics Recycling Program.

When asked if they favour environmental handling fees to be based on how easy electronic products can be recycled, 70% agreed. 373 comments ranged from basing the fees on how toxic the components in the electronic equipment are to putting the onus on the manufacturers to produce electronics equipment that is easily recycled. Many people voiced concern about paying fees for recycling electronic products when they were already paying taxes for municipal waste and recycling collection.

Survey respondents were asked how they would like to receive information about the new electronics recycling program and ranked television, radio, newspapers (both community papers and dailies) and signs at electronics retail outlets as their favourite means to receive information.

When asked if they favoured receiving information about reusing and refurbishing electronics equipment, 97% of respondents supported this idea. 141 respondents provided additional comments that ranged from listing non-profit groups that accept old electronic equipment to making sure that confidential data on unwanted electronics is properly removed.

Respondents were asked about recycling the unwanted electronics in Nova Scotia and 97% of respondents supported this idea. 200 respondents commented on this question focusing on the economic opportunities and job creation that a recycling facility would provide to the province.

98% of survey respondents agreed that it was important for recyclers to follow strict environmental standards when processing unwanted electronic products.

In addition, 318 respondents provided additional comments on the Draft Electronics Recycling Plan for Nova Scotia. Comments included overall satisfaction with the program as presented but many had reservations regarding the lack of detail. Providing a program that was convenient seemed to be a paramount concern for respondents and many reiterated their concern about paying handling fees.

Although the survey was only on-line two weeks, 1134 Nova Scotians took the time to participate. This shows the tremendous interest in the long-awaited electronics recycling plan for Nova Scotia. By encouraging the public to participate in the program design, public support for Nova Scotia's Electronics Recycling Program will continue to be strong.

Phase II

The draft amendment to the plan was circulated to several key stakeholder groups, all 450+ members of ACES, and the Local Advisory Committee. It was also posted on the ACES website for public viewing. Comments were received up to July 22, 2008. In total, eighteen responses were received by either e-mail or fax.

The feedback received was summarized and, where relevant, changes were made to the plan to reflect the input. Of the feedback received from the public, stakeholders and members, three main themes emerged:

1. Clarifications to the definitions and what is included in the program;
2. Comments on the collection network/system and;
3. Comments on the EHF's and their applicability.

From the Local Advisory Committee, key issues included the following:

1. Communications – the need for a more “robust” plan and budget to increase awareness of the existing program and the additional products which will be accepted for recycling in February 2009, including looking to utilize electronic media outlets. The need to effectively target the ICI sector was also raised.
2. Coverage of the Collection Network – the desire to see some perceived gaps in coverage addressed and to allow some municipal “incidental collection” sites to become approved Drop-Off Centres for the program.
3. Incidental Waste – the issues relating to incidental waste received by municipalities need to be addressed as per the commitment made by ACES prior to program launch.
4. Re-use – the desire to see re-use promoted and standards set if necessary to facilitate this option within the program parameters.

ACES recognizes that the consultation period was brief and plans to continue to solicit input as necessary during Phase II program roll-out.

Appendix G – Program Memo

Guidelines re: Damaged and Contaminated Program Materials

Issued: February 1, 2008

Purpose: To guide ACES Drop-off Centres in determining if a designated program material should either be:

Accepted at an ACES Drop-off Centre; OR

Rejected by an ACES Drop-off Centre and directed to a Municipal Waste Management Authority

Guidelines for Monitors and Televisions with Cathode Ray Tube (CRT) or Leaded Plasma Display

HAZARD: Leaded Glass

General: Most components of a CRT or plasma display monitor or television do not pose an immediate threat to the health and safety of workers. A damaged or broken CRT or plasma display monitor or television can, for the most part, be shipped along with undamaged units if the glass display on the unit remains intact and its outer shell still holds the majority of its contents.

Condition	Accepted for Recycling in ACES Program	Not Accepted in ACES Program
Monitor or TV delivered to site with damaged CRT or damage occurs on-site	If the CRT screen is cracked but not broken (i.e. no loose pieces/shards) and the monitor or television casing appears otherwise intact.	If the CRT screen is broken and loose pieces/shards remain within the monitor or television casing.
Monitor or TV casing and remaining contents delivered to site without CRT	If the monitor or television casing and its remaining contents appear otherwise intact.	
	If the monitor or television casing and/or its remaining contents have been separated but delivered collectively.	
Bare CRT delivered to site without a monitor or TV casing	If the bare CRT is packaged in a secure fashion with protective wrap and boxed. Place in a tub-skid for safer storage and shipment.	If the bare CRT is not packaged (i.e. protective wrap and boxed) in a secure fashion.
Leaded plasma display delivered to site with damaged display glass or damage occurs on-site	If the display screen is cracked but not broken (i.e. no loose pieces/shards) and the monitor or television casing appears otherwise intact.	If the display screen is broken and loose pieces/shards remain within the casing.

Guidelines for Scanners, Laptop and Notebook Computers, Monitors and Televisions with Liquid Crystal Display (LCD)

HAZARD: Mercury in Fluorescent Bulbs

General: Most components of a scanner, laptop or notebook computer, as well as monitors and televisions with liquid crystal display do not pose an immediate threat to the health and safety of workers. A damaged or broken scanner, laptop or notebook computer, monitor or television with LCD can be shipped along with undamaged units if the backlighting system (for the glass or screen surface) remains intact or if the fluorescent bulb which contains trace amounts of mercury has been removed.

Condition	Accepted for Recycling in ACES Program	Not Accepted in ACES Program
Scanner, laptop or notebook computer, monitor or television with LCD is delivered to your site with a cracked or broken screen/glass surface or damage occurs on-site	If damage is minimal (i.e. limited to broken glass or screen surface) and the rest of the unit appears intact, loose pieces/shards should be removed and any cover which normally protects the surface should be taped shut. Alternatively, and where practical, units may be placed in a re-sealable rigid plastic container and labeled. In either of these states, it should be placed in a tub-skid for safer storage and shipment.	If damage to the unit is severe (i.e. extends beyond broken screen/glass surface), including an exposed backlighting system revealing a broken fluorescent bulb.

Guidelines for Contaminated Program Materials

HAZARD: Worker Health and Safety and Material Cross-Contamination

General: Normally, program materials arriving at designated drop-off sites pose no threat to worker health and safety except in rare instances where material breakage may need to be dealt with. However, incidental municipal collection of program materials has the potential to not only put worker health and safety at risk but also cross-contaminate these banned materials with various wastes not banned from landfill to a point where these program materials cannot be recycled.

Condition	Accepted for Recycling in ACES Program	Not Accepted in ACES Program
Program materials are delivered to a municipal transfer or landfill facility	Any program materials set aside for pickup should be stored in containers supplied by ACES and kept under cover and in a "clean state" to the extent possible. Consolidation or Recycling service providers will assess loads received from municipal transfer or landfill facilities and shall determine what is acceptable program material. Items not accepted by the consolidator or recycler due to any hazard identified in this memo would be sent to landfill.	Any identifiable program materials delivered by a compactor truck that are heavily soiled or crushed.

APPENDIX H

Analysis of Environmental Handling Fee Schedules for Selected, Regulated, Industry-led, End of Life Electronics Recycling Programs in Canada

CALCULATION OF ENVIRONMENTAL HANDLING FEES FOR PHASE II PRODUCTS

Prepared by:

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&
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Winnipeg, MB R2M 4H5

Commissioned by:

Atlantic Canada Electronics Stewardship (ACES)
Saskatchewan Waste Electronic Equipment Program (SWEEP)
Electronics Stewardship Association of British Columbia (ESABC)

October 31, 2008

The advent of Nova Scotia's regulation which designated February 1, 2009 for the implementation of a recycling program for "Phase II" electronic products, along with British Columbia's intent to expand its "Phase I" obligated products list, meant that a new schedule of fees were required for range of telecommunication and audio-visual equipment.

The objective of this study was to analyze and make recommendations for EHF's for "Phase II" regulated products as identified in the Nova Scotia regulation. The intent was to harmonize (to the extent possible) these EHFS across all three jurisdictions as their respective programs expanded.

The full report is available from eStewardship at:

http://www.estewardship.ca/docs/Phase_II_EHF_Report_FINAL.PDF

APPENDIX I

Analysis of Environmental Handling Fee Schedules for Selected, Regulated, Industry-led, End of Life Electronics Recycling Programs in Canada

CALCULATION OF REVISED ENVIRONMENTAL HANDLING FEES FOR PHASE I PRODUCTS

Prepared by:

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Winnipeg, MB R2M 4H5

Commissioned by:

Atlantic Canada Electronics Stewardship (ACES)
Saskatchewan Waste Electronic Equipment Program (SWEEP)
Electronics Stewardship Association of British Columbia (ESABC)

April 24, 2009

ACES, in its approved stewardship plan (August 1, 2007), indicated that EHF's would initially mirror those charged in British Columbia, Alberta and Saskatchewan provided the fees reflected true program costs in Nova Scotia. ACES committed to a regular review of the fee structure to ensure sufficient funding for all program activities and that program revenues remained consistent with program expenditures.

The objective of this study was to analyze and make recommendations for revised EHF's for Phase I regulated products as identified in the Nova Scotia, Saskatchewan and British Columbia regulations. The intent was to harmonize (to the extent possible) these EHF's and/or the methodology for their determination, across all three jurisdictions as their respective revised EHF schedules were introduced.

The full report is available from eStewardship at:

http://www.estewardship.ca/docs/Environmental_Handling_Fees_for_Phase_I_Products.pdf

APPENDIX J

RESEARCH AND RECOMMENDATIONS FOR PERFORMANCE MEASURES

**For Regulated, Industry-led, End-of-Life
Electronics Recycling Programs in Canada**

Commissioned By:

**Atlantic Canada Electronics Stewardship (ACES)
Electronics Stewardship Association of British Columbia (ESABC)
Ontario Electronic Stewardship (OES)
Saskatchewan Waste Electronic Equipment Program (SWEEP)**

Prepared By:

**InterGroup Consultants Ltd.
Winnipeg, MB R3C 1K2**

February 2010

ACES, ESABC, SWEEP and OES jointly commissioned a study to analyze and make recommendations for a core suite of performance indicators. The primary purposes of the core indicators would be to: allow each program to track its own performance over time; facilitate comparisons and benchmarking between jurisdictions; and communicate performance accomplishments and targets to government and other stakeholders.

The full report is available from eStewardship at:
<http://www.estewardship.ca/docs/Performance-Measurement-Repor-FINAL-2010.pdf>