

# Quebec Product Stewardship Program for End-of-Life Electrical and Electronic Equipment

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## 1.0 INTRODUCTION

Electronics Product Stewardship Canada (EPSC) and Retail Council of Canada (RCC) are pleased to provide the following proposal for the development and implementation of a stewardship program for end-of-life (EOL) electrical and electronic equipment in the province of Quebec. Designated products are listed in Appendix A.

EPSC and RCC have created a national not for profit organization also registered in Quebec, Electronic Products Recycling Association (EPRA), to operate the Program Plan.

The Province of Quebec, specifically, the Minister of Sustainable Development, Environment and Parks, is delegating to the Société québécoise de récupération et de recyclage the general responsibilities relative to the regulatory applications as stated in paragraph 6 of the *Environment Quality Act* and the Quebec EPR Regulation.

The Ministry of Sustainable Development, Environment and Parks is responsible for the enforcement of the *Regulation respecting the recovery and reclamation of products by enterprises* and the *Environment Quality Act*, with respect to designated products and stewards of designated products under the Regulation.

This plan has been assembled using the requirements outlined in the *Regulation respecting the recovery and reclamation of products by enterprises*.

The intent of this document is to systematically address the requirements of the Regulation while placing them into an orderly, easy to read format. The essence of this document will be used to write a contractual agreement between EPRA and Recyc-Quebec.

If a Guideline to accompany the Regulation is issued by Recyc-Quebec and differs materially from the Regulation, additional time (estimated at between four and six weeks) will be required for document revision and subsequent consultation if necessary.

Any delay in finalizing a legal Agreement between EPRA and RECYC-QUÉBEC, based on this Program Plan will affect the date to begin Program implementation, currently set under the Regulation for July 14, 2012.

EPRA is not able to borrow funds to start implementing the Program without a legal agreement first being in place.

## 2.0 SUMMARY

This document outlines a product stewardship program to divert end-of-life electrical and electronic equipment from landfill and from illegal export, through the collection and subsequent recycling of these products as required by regulation. This proposed Stewardship Program is based on a shared responsibility model where manufacturers, retailers, customers, and government all play a role. Customers will be able to drop off designated end-of-life electrical and electronic equipment without additional cost at collection sites or events.

Membership in the EPRA Quebec Program will be made available to all electronic product stewards obligated under the Regulation. EPRA will manage the Program effectively and efficiently and ensure materials are reused and recycled in a manner that safeguards the environment and worker health and safety.

Government will enforce the Regulation (or any plan approved by the Minister) to ensure Obligated Steward and Program compliance. We expect governments to pursue landfill bans on obligated products to assist with Program compliance to targets.

A legal Agreement between EPRA and RECYC-QUÉBEC, based on this Program Plan, will define how products will be collected and recycled and the terms of the contractual agreement with service providers (i.e., collection depots, recyclers, processors, etc.) will be developed.

As prescribed in the Regulation, service providers will be required to meet the EPSC Electronic Recycling Standard (ERS), complete the Recycling Qualification Program (RQP), and comply with any other standards approved by the Program. This includes the Reuse and Refurbishment Standard.

The Program will seek to maximize activities within the province, providing this delivers cost effective and environmentally responsible solutions.

Program details will be disseminated through a communications plan, including a public education component. The Program is also committed to transparency in financial and environmental reporting.

Performance indicators will be harmonized with other electrical and electronic stewardship programs in Canada based on a review of a core suite of performance indicators. This will allow Program performance to be assessed not only year over year, but also relative to the performance of other provincial programs within the Canadian marketplace.

Annual reports will be submitted to Recyc-Quebec and be made available on the Program website. Annual reports will include information required by the Regulation and on the following topics: program performance measures, financial statements, educational materials and strategies, total number of collection facilities, and reduction of environmental impacts.

### 3.0 PROGRAM PRINCIPLES

The proposed end-of-life electrical and electronic equipment stewardship program will be consistent with the EPSC guiding principles for stewardship programs, including:

1. **Level playing field:** Provide a level playing field (fair competition), achieve a high level of compliance, and eliminate the potential for free-riders.
2. **Historic/orphaned products:** Adequately address the issue of orphan, historic, and imported designated products from companies with no Quebec presence.
3. **Environmental standards:** Ensure designated products are recycled in a responsible manner that safeguards the environment and worker health and safety in accordance with the Electronics Recycling Standard (ERS) and the Recycling Qualification Program (RQP).
4. **No cross-subsidization:** Each product category is assigned only the costs of managing those products within that category.
5. **Operational efficiencies:** Ensure the Program is delivered effectively and efficiently at the lowest possible cost to keep costs paid by customers to a minimum.
6. **Business sustainability:** Ensure sustainable management of the business by maintaining an appropriate operating contingency reserve (OCR).
7. **Continuous improvement:** Adhere to provisions for best practices to strive for continuous improvement in environmental and economic performance.
8. **Harmonization:** To the greatest extent possible, harmonize with other Provincial end-of-life electrical and electronic stewardship programs to achieve economies of scale

## 4.0 PROGRAM OVERSIGHT AND MANAGEMENT

The Program will be managed by Electronics Product Recycling Association (EPRA), a nationally incorporated not-for-profit organization, also registered in Quebec, made up of members of the founding associations, EPSC and RCC. EPRA will establish a Quebec-based office.

### 4.1 BOARD OF DIRECTORS

EPRA will oversee program development related to the management, and operations of the program. La structure de gouvernance est composée de 4 représentants de RPEC, de 4 candidats du CCCD, de 2 membres du secteur des ventes commerciales et de 2 membres indépendants. Les premiers administrateurs sont :

- Lloyd Bryant, vice-président – directeur général, Groupe image et impression, **Hewlett Packard** Canada
- Mike Watson, directeur de la conformité, **Dell** Global Takeback
- Nick Aubry, directeur, Environnement, NPC, Vendor Management, **Sony** Canada
- René Zanin, avocat général, **Toshiba** du Canada Lée
- Grant Mc Taggart, vice-président, Administration, **Best Buy**
- Pete Gibels, vice-président du Marchandisage, **Staples**
- Clint Mahlman, premier vice-président, Exploitation, **London Drugs**
- Allen Langdon, vice-président, Durabilité, **CCCD**
- Harry Zarek, président et chef de la direction, **Compugen**
- Mary Ann Yule, chef de la direction, **CDW**
- Shelagh Kerr, **RPEC**, observatrice

### 4.2 PROGRAM STAFFING AND MANAGEMENT

EPRA's CEO, Cliff Hacking will ensure the Program is designed and operated to consider provincial, regional, urban, and rural perspectives. To implement the Program and manage the core day-to-day activities of operations, finances, and communications, a Quebec based Manager will be hired by EPRA.

### 4.3 COMITE DELIBERATIF

EPRA will establish the comite deliberatif. The comite deliberatif will provide stakeholder feedback on plans and ongoing advice and guidance to the Board. The comite will provide an avenue for stakeholder issues to be raised to the Program management and Board of Directors. Quebec stakeholders that may be represented on the comite deliberatif include, but are not limited to: Quebec based Stewards, local and provincial government officials, academics, and non-governmental organizations.

## 5.0 DESIGN OF COLLECTION SYSTEM

EPSC and RCC are recommending the establishment of a collection and processing network.

Service providers selected by the Program will receive a unit or weight-based financial payment for the volume of designated products handled under the Program. The process for selecting service providers will be through a RFP process. Selection criteria are expected to include experience in delivering these services, facility and process standards related to environmental and workplace health and safety, coverage area, and others. The resulting collection system will be one that best addresses the requirements in the Regulation.

The Quebec office of EPRA will seek to enter agreements with a variety of organizations to provide collection services for designated products, including retail locations, charitable organizations, waste collection companies, and municipalities. Customers will be able to drop off obligated products at any designated collection site, or event without additional charge. EPRA will ensure there is sufficient province-wide collection coverage.

Service providers in the Program must meet minimum standards for environmental and human health and safety and best practices already established via the EPSC Electronics Recycling Standard (ERS) and Recycling Qualification Program (RQP) and the Reuse and Refurbishment Standard.

The RQP ensures end-of-life-electronics 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 delivery of the RQP will be carried out by EPRA, to ensure that all approved recyclers and refurbishers are meeting the minimum requirements outlined within the ERS and the Program's Reuse and Refurbishment Standard.

The RQP process has three primary objectives:

1. To ensure all end-of-life electrical and electronic equipment and associated waste are handled, transported, processed, stored, and disposed of in an environmentally sound manner.
2. To ensure that potentially hazardous components of end-of-life electrical and electronic equipment are processed in such a manner that reduces negative impacts on the environment and worker health and safety.
3. To track the downstream flow of materials through to final processing or disposition, in order to ensure that potentially hazardous components are not sent to developing nations for the purpose of recycling and/or disposal.

The EPSC Electronic Recycling Standard and the Recycler Qualification Program work in concert to facilitate an environmentally sound and safe management system for end of life electronics.

## 6.0 PERFORMANCE MEASURES

In order for the performance of a complex program of this kind to be properly evaluated, multiple performance indicators are needed. No single performance indicator will provide a sufficient indication of Program performance.

Performance indicators adopted by Atlantic Canada Electronics Stewardship, Electronics Stewardship Association of British Columbia, Ontario Electronic Stewardship, and Saskatchewan Waste Electronic Equipment Program, as outlined below, will also be identified in Quebec:

1. Operational:
  - a. Total end-of-life electrical and electronic equipment collected in units or by weight
  - b. “ “ “ “ “ “ per capita (tonnes)
2. Accessibility:
  - a. Percent of population covered by collection sites
  - b. Total number of collection sites
  - c. Total collection events, including those listed by Municipalités régionales de comté
3. Financial indicators:
  - a. Total costs for end-of-life management
  - b. Total operational costs
  - c. Total overhead costs
4. Awareness indicators

In addition, the Program will measure the performance based on the requirements outlined within the Regulation.



## **7.0 DISPUTE RESOLUTION**

A dispute resolution mechanism will be established between stewards and the Program prior to implementation. The contract between these parties will contain a dispute resolution mechanism and the wording of this will be provided to the Ministry of Sustainable Development, Environment and Parks on completion of the contract signing. Agreements between the Program and service providers will contain standard commercial language to address disputes. Although the exact dispute resolution process still needs to be determined, it may include:

- A requirement to meet to negotiate a resolution within a specific time of receiving notice of dispute;
- The appointment of a mediator should negotiations fail, including requirements to participate in mediation and procedures for payment of the mediator; and
- If the above steps do not resolve the dispute, the appointment of an Arbitrator (nature of this position to be determined) could be required.

Interactions with other stakeholders (including the general public) not covered by contractual arrangements do not require a formal dispute resolution mechanism. Should disagreements arise, the aggrieved party would have access to the designated Program Manager, the Quebec Advisory Council and, ultimately, the Program Board of Directors.

## **8.0 ANNUAL REPORT AND PROGRAM ASSESSMENT**

### **8.1 ANNUAL REPORT**

The Program will provide an annual report to the Ministry of Sustainable Development, Environment and Parks. It will also be made available on the Program website.

This report will include, but not be limited to:

1. Educational Materials and Strategies:
  - a. Description of educational materials and strategies undertaken through the course of the year.
  - b. Description of related performance measures (e.g., effectiveness of efforts intended to raise public awareness).
2. Research and Development Strategies
  - a. Description of research and development strategies undertaken through the course of the year.
3. Collection Facilities:
  - a. Information regarding location of collection and processing facilities.
4. Reducing Environmental Impacts:
  - a. Description of efforts undertaken to promote and communicate options for reuse in the province.
  - b. Steps taken to foster continued improvement in the Program in relation to the reduction of environmental impacts.
5. Consistency with the Pollution Prevention and Best Management Practices and reclamation hierarchy:
  - a. This will be accomplished to the extent feasible through implementation of ERS and RQP protocols.
6. Performance Measures (see section 6.0)
7. Financial Statements:
  - a. Independently audited financial statements
  - b. Will reflect the Program commitment to financial transparency.
  - c. Will be subject to secure data reporting and management systems as per EPRA
  - d. Will list Board members and staff

### **8.2 PROGRAM ASSESSMENT**

In accordance with section 10 of the Regulation, the program will be reviewed every 5 years.

## **9.0 POLLUTION PREVENTION AND BEST MANAGEMENT PRACTICES**

This stewardship program is designed to address the responsible recycling and recovery of end-of-life electrical and electronic equipment. The safe recycling, disposal, and recovery of the designated products will be achieved through the implementation of industry best practices, including the implementation of ERS and RQP protocols.

The Program can commit to the following with respect to reduction and reuse of designated products:

- Reporting to the Province and stakeholders on “Design for Environment” and other industry initiatives to reduce the environmental impact of new designated electrical and electronic products.
- Providing communication to program users about reuse opportunities for designated electrical and electronic products administered by other programs and agencies.

The Program will promote local processing, manufacture, and use of products from designated end-of-life electrical and electronic equipment, where environmentally and economically sustainable. The Program will also operate in a manner supportive of national and international agreements.

## **10.0 DEFINITION OF PRODUCTS**

*Chapter VI, Categories of Products Covered; Division 1, Electronic Products. Section 22:* of the Regulation designates that electronic appliances used to send, receive, display, store, record or save information, images, sounds or waves, and their accessories, except cases, decorative or transportation accessories and products designed and intended to be used exclusively in an industrial, commercial or institutional environment, be included in the Program.

Definitions of these designated products can be found in Appendix A. Given the nature of the industry (rapid technological advancements and product evolution), it will be necessary to continually monitor and update Product definitions to ensure full compliance and clarity.

## 11.0 NATURE OF PROGRAM FUNDING

The Program will be funded by an Environmental Handling Fee (EHF) remitted by the obligated stewards of designated products that have joined the Program as a member to discharge their legal obligations. The membership rules will allow for two types of members: Remitter and Pay-on-Purchase (POP).

To maintain membership, obligated stewards will be required to follow established rules regarding Program funding to ensure that the EHF is only collected once through the supply chain. Failure to follow these rules and non-compliance with the Regulation could lead to membership termination.

### 11.1 FEE DETAILS

The EHF will not be a flat fee across all products, but will be set by product category, and will reflect the true costs of managing that product. The EHF will be subject to GST and PST whether it is included in the product price or shown separately on the sales receipt.

The fee will fund:

- Collection, handling, and recycling;
- Communication and public education;
- Recycler evaluations;
- Administrative expenses;
- Compliance and enforcement provisions required over and above government measures;
- A prudent operating contingency reserve; and
- Continuous research and improvement.

The fee-setting methodology has yet to be determined, but in the short term, fees similar to those currently in place in other jurisdictions will be adopted. Once the Program has been established and costs accurately characterized, the fees will be revisited.

#### 11.1.1 MODULATED FEES

The electronics manufacturing industry has worked with environmental advocacy, academic, trade association, government and recycling entities to develop customer tools that secure market recognition for their efforts to reduce the environmental impact of products.

EPEAT is an example of a customer tool that helps purchasers identify, compare and select environmentally preferable products and provides manufacturers with clear and consistent environmental criteria for the design and development of products. Appendix B provides a detailed description of EPEAT. We intend to leverage customer tools like EPEAT in order to show how product differentiation is occurring in the market place.

### 11.2 FUNDING FLOW

Stewards will remit fee payments based on net designated product sales (which accounts for such things as product returns).

The membership rules will require Remitter members to remit monthly EHF payments to the Program based on the total number of net designated products supplied during that previous month to any entity that is not another Remitter member (i.e., end consumers or POP members). Point of Purchase (POP) members will pay the EHF charged by their supplier and will not be required to provide monthly remittances for products from their suppliers. The collected funds will be disbursed to pay for the operation of the Program. Detailed schematics describing the flow of funding for the Program can be found in Appendix C.

### 11.3 PRODUCT STEWARDS

The Regulation defines the obligated party or steward as “the enterprise that acts as the first supplier of that product in Quebec.”

To clarify, we interpret the Regulation to mean that Obligated Stewards include:

- a. Product manufacturers who sell, offer for sale, or distribute the product in Quebec under the manufacturer’s own brand;
- b. The owner or licensee of a trademark under which a product is sold or distributed in Quebec, whether or not the trademark is registered; or
- c. An importer into Quebec who sells, distributes, or uses the product in a commercial enterprise.

### 11.4 FINANCING PROGRAM DEVELOPMENT AND IMPLEMENTATION

Program development and implementation activities undertaken following passage of the Regulation and in advance of fee collection may be reimbursed from future Program revenues, with reasonable interest, to those organizations providing the services. Examples include:

- EPSC and RCC activities to create and manage the Program plan, define the partner requirements, and negotiate contracts.
- All activities undertaken by the management/administrative organization.
- Any direct contributions made by industry.
- A procedure defining allowable expenses will be approved by the Board of Directors, including an appropriate time period for payback and the formula for calculating interest.

## **12.0 COMMUNICATION AND PUBLIC AWARENESS METHODS**

Efforts related to communication and public awareness will be affected in the following ways:

- To ensure that customers are aware of the Program and have knowledge on how and when they can dispose of products; promotional material will be on-hand at collection sites or events (e.g., question and answer pamphlets, posters, and other signage), supplemented by media (e.g., newspaper radio advertisements), a Program web site, social media support and call center services.
- A survey program will be implemented by the Program. The intent is to gauge customer knowledge of the Program and seek input on potential Program improvements. Survey participants may be asked about recent recycling activities, their knowledge of where designated products can be taken, etc.
- Where substantive Program changes are proposed (e.g., incorporation of additional designated products) the Program will consult as required.
- In addition to the steps identified above, the Program is committed to transparency and will ensure that industry proposals, Program plans, and annual reports are sufficiently communicated to interested stakeholders.

## **13.0 QUALITY CONTROL AND ASSURANCE MECHANISMS**

EPRA must adhere to all existing federal and provincial laws and policies that apply to the management of solid waste and recycling, and any activity associated with or arising from recycling. No activity undertaken or required by EPRA through its relationship with other entities shall impair free trade internationally or inter-provincially for new electronics, used electronics in whole or in part, or other commodities arising from EPRA activities and programs.

### **13.1 AUDITING OF OBLIGATED FIRST SUPPLIER**

A member auditing program known as Compliance Reviews has been implemented which sets guidelines and targets for the first supplier audit program including:

- Timing and criteria for reviews of first supplier
- Criteria for repeat reviews depending upon remittance level, compliance records, etc.
- Compliance Review procedures.

### **13.2 RECYCLER QUALIFICATION PROGRAM**

The Recycler Qualification Office (RQO) has been established by the industry-led end-of-life electronics stewardship programs to ensure that environmentally sound electronics reuse and recycling standards are established, met, maintained and continually improved upon.

The Recycler Qualification Program is an eight part publication that defines the minimum requirements for recyclers of EOLE materials as well as the process for assessing and approving recyclers to ensure that material is handled in an environmentally sound and socially acceptable manner that protects the environment and safeguards worker health and safety.

The RQP includes the Electronics Recycling Standard (ERS). The 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.

The RQO will manage all recycler assessments and approvals on behalf of the Quebec program, to ensure assessments are undertaken in a timely manner, and results are objective, thorough, and sufficiently detailed to provide confidence in the results of the assessment.

### **13.3 REPORTING**

In line with Section 9 of the Regulation annual reports will be submitted to the Minister on or before 30 April of each year.



## APPENDIX A - PHASE I & II DESIGNATED PRODUCTS AND DEFINITIONS

Notes: 1) Given the nature of the industry (rapid technological advancements and product evolution), it will be necessary to continually monitor and update Program definitions to ensure clarity on compliance with the Regulation.  
2) Products included / excluded are examples and may not represent an exhaustive list of all products by category

<b>DESIGNATE D PRODUCTS</b>	<b>PRODUCT DEFINITION (Subject to Revision)</b>	<b>Examples of PRODUCTS INCLUDED (Subject to Revision)</b>	<b>Examples of PRODUCTS NOT INCLUDED (Subject to Revision)</b>
<b>PHASE I</b>			
<b>DESKTOP COMPUTERS</b>	A computer terminal designated to reside on a desk or similar work surface.  Includes desktop computers and desktop computers acting as servers.	<b>Standalone:</b> • Computer terminal • Desktop computer used as a server • Thin client	• Non-standalone computer terminal that is embedded into a non-regulated product • Rack mounted and floor-standing server • Uninterruptible Power Supply (UPS)
<b>PORTABLE COMPUTERS</b>	A personal computer designed for portable use.	• Laptop computer • Notebook computer • Tablet computer • Netbook computer • Electronic pads • E-book readers	• PDA (non-cellular enabled) – <b>SEE PERSONAL/PORTABLE category: PRODUCTS INCLUDED</b> • Calculator • Other handheld computing devices
<b>DISPLAY DEVICES</b>	A non-portable video display device that typically resides on a table, floor or wall and requires AC power to operate  May contain an embedded 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. Includes various display technologies, such as CRT, flat panel (LCD, Plasma, LED, OLED, etc.) or rear projection.	<b>Standalone:</b> • Television • Computer monitor • Professional display • Closed circuit monitor screen • TV with built-in DVD and/or VCR player/recorder	• Non-standalone displays that are embedded into a non-regulated product • Digital photo frames – <b>SEE HOME A/V category: PRODUCTS INCLUDED</b> • POS Pole Display • Electronic whiteboards • 3D Glasses

<p><b>PRINTERS, SCANNERS AND FAX MACHINES AND PHOTOCOPIERS</b></p>	<p>A printing, scanning 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 &amp; LED (electrophotographic), ink jet, dot matrix, thermal, dye sublimation, etc.</p>	<p><b>Standalone:</b></p> <ul style="list-style-type: none"> <li>• Desktop printers</li> <li>• Portable or PC-free photo printer</li> <li>• Camera dock printers</li> <li>• Desktop label, barcode, card printers</li> <li>• Desktop fax machines</li> <li>• Desktop or portable scanners</li> <li>• Business card scanners</li> <li>• Cheque scanners</li> <li>• Photo negative scanners</li> <li>• Photocopiers</li> </ul>	<ul style="list-style-type: none"> <li>• Floor standing printers</li> <li>• Point of sale (POS) receipt printers</li> <li>• Non-standalone printers that are embedded into non-regulated products</li> </ul>
<p><b>PERIPHERALS</b></p>	<p>A manual input keying or pointing device, such as a mouse, a keyboard, or a similar device.</p>	<ul style="list-style-type: none"> <li>• Mouse</li> <li>• Trackball</li> <li>• Keyboard</li> <li>• Keypad</li> <li>• Connectors</li> <li>• Chargers</li> <li>• Remote controls</li> <li>• Cables</li> </ul>	<ul style="list-style-type: none"> <li>• Graphic tablets</li> <li>• Stylus</li> <li>• Magnetic stripe readers</li> <li>• Mobile internet sticks</li> </ul>
<p><b>NON-CELLULAR TELEPHONE S AND ANSWERING MACHINES</b></p>	<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>	<ul style="list-style-type: none"> <li>• Telephones (corded and cordless, VoIP, satellite phones)</li> <li>• Telephone line answering machines (cassette and digital)</li> <li>• Speaker/Conference phone</li> </ul>	<ul style="list-style-type: none"> <li>• Telecommunications equipment developed for imbedded use in motor vehicles of any type</li> <li>• Commercial-grade "pay phones"</li> <li>• Audio baby monitors and receivers</li> <li>• Fax machines – <b>SEE PRINTERS category: PRODUCTS INCLUDED</b></li> </ul>
<p><b>PHASE II</b></p>			
<p><b>PERIPHERALS</b></p>	<p>A manual input keying or pointing device, such as a mouse, a keyboard, or a similar device.</p>	<ul style="list-style-type: none"> <li>• Joysticks and other game controllers</li> <li>• Hard drives</li> <li>• Replacement and spare parts for obligated products</li> <li>• Accessories for obligated products</li> </ul>	<ul style="list-style-type: none"> <li>• Graphic tablets</li> <li>• Stylus</li> <li>• Magnetic stripe readers</li> <li>• Mobile internet sticks</li> </ul>
<p><b>PERSONAL/PORTABLE AUDIO/VIDEO PLAYBACK AND/OR</b></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"> <li>• Portable AM/FM radios</li> <li>• Clock radios</li> <li>• Portable stereos</li> <li>• Portable tape players/recorders</li> <li>• Portable Disc (CD,</li> </ul>	<ul style="list-style-type: none"> <li>• Single-use or one-time use cameras</li> <li>• Children's toy cameras</li> <li>• Discs (CDs, DVDs, Blu-ray, HDDVD, etc.)</li> <li>• Commercial, Professional</li> </ul>

<p><b>RECORDING SYSTEMS</b></p>		<p>DVD,Blu-ray, etc.) players/recorders</p> <ul style="list-style-type: none"> <li>• MP3 players</li> <li>• Portable docking/compact speakers (wired and wireless including Wi-Fi or Bluetooth)</li> <li>• Portable cassette or digital audio/voice recorders</li> <li>• Headphones</li> <li>• Mini earphones and microphones</li> <li>• Headsets (wired and wireless, including Bluetooth)</li> <li>• Microphones for use with an obligated product</li> <li>• Digital and non-digital cameras</li> <li>• Digital photo key chains</li> <li>• Video cameras/ camcorders</li> <li>• Personal Digital Assistants (PDAs) which are not enabled to connect to cellular networks</li> <li>• Multi-function satellite radios that include CD, MP3, FM radio or other audio functions.</li> <li>• Portable scanners (Business card scanners; Photo negative scanners)</li> <li>• Portable printers</li> <li>• Web cameras</li> <li>• Digital frames</li> <li>• Portable displays – screen size up to 10”</li> <li>• Portable scanners (business card scanners; photo negative scanners)</li> <li>• Video game consoles</li> <li>• Walkie-talkies</li> <li>• Global positioning systems</li> <li>• Routers</li> <li>• Memory cards</li> <li>• USB keys</li> </ul>	<p>or industrial video cameras and/or microphones</p> <ul style="list-style-type: none"> <li>• Industrial/commercial quality microphones used for musical recording, performances and/or public address</li> <li>• Cellular-enabled PDAs</li> <li>• Industrial or commercial handheld or mobile computing devices</li> <li>• Satellite radio receivers and components (used exclusively for satellite audio)</li> <li>• Electronic Dictionaries</li> <li>• 3D Glasses</li> <li>• Personal FM transmitters</li> </ul>
<p><b>HOME AUDIO/ VIDEO SYSTEMS</b></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: Audio equipment:</p> <ul style="list-style-type: none"> <li>• Amplifiers</li> <li>• Receivers</li> </ul>	<ul style="list-style-type: none"> <li>• AM/FM Radios</li> <li>• Video Cassette Recorders (VCRs)</li> <li>• Digital Video Recorders (DVRs)</li> <li>• Personal Video Recorders (PVRs)</li> <li>• Disc players/ recorders (DVD, Blu-ray, etc.)</li> <li>• Laser Disc players/recorders</li> <li>• Cable &amp; satellite receivers</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial/commercial quality amplifiers, speakers and related equipment used for musical recording, performances and/or public address</li> <li>• Satellite dishes</li> <li>• Karaoke machines</li> <li>• Alarm clocks and wall clocks</li> <li>• Intercoms</li> </ul>

<p><b>HOME AUDIO/VIDEO SYSTEMS</b></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"> <li>• Amplifiers</li> <li>• Receivers</li> <li>• Speakers</li> <li>• CD players (single and multi-disc units)</li> <li>• Radios</li> <li>• Turntables</li> <li>• Cassette and other tape players</li> </ul> <p>Video equipment:</p> <p>Data/multi-media projectors</p> <ul style="list-style-type: none"> <li>• VCRs</li> <li>• DVRs</li> <li>• PVRs</li> <li>• DVD players</li> <li>• Blu-ray players</li> <li>• Laser Disc players</li> <li>• Security cameras</li> </ul> <p>Cable and Satellite TV</p>	<ul style="list-style-type: none"> <li>• AM/FM Radios</li> <li>• Video Cassette Recorders (VCRs)</li> <li>• Digital Video Recorders (DVRs)</li> <li>• Personal Video Recorders (PVRs)</li> <li>• Disc players/ recorders (DVD, Blu-ray, etc.)</li> <li>• Laser Disc players/recorders</li> <li>• Cable &amp; satellite receivers</li> <li>• Set-top boxes Including digital TV</li> </ul> <p>Home stereo systems or components, including:</p> <ul style="list-style-type: none"> <li>• Amplifiers</li> <li>• Receivers</li> <li>• CD or tape decks</li> <li>• Turntables/record players</li> <li>• Home speaker systems such as 5.1 and 7.1 speaker packages supplied without amplifier or video player, including computer (multi-media) speakers</li> <li>• Other digital music recorders/players</li> <li>• Audio docking stations</li> <li>• Analog &amp; digital video</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial/commercial quality amplifiers, speakers and related equipment used for musical recording, performances and/or public address</li> <li>• Satellite dishes</li> <li>• Karaoke machines</li> <li>• Alarm clocks and wall clocks</li> <li>• Intercoms</li> <li>• 3D Glasses</li> <li>• Overhead projectors</li> </ul>
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## APPENDIX B - OVERVIEW OF EPEAT

### WHAT IS EPEAT?

EPEAT® is an easy-to-use resource for purchasers, manufacturers, resellers and others wanting to find and promote environmentally preferable products. It provides criteria from which electronic products can be differentiated based on their environmental sustainability throughout their life-cycle.

Before EPEAT was available, purchasers struggled to identify which attributes made one product environmentally superior to another. Manufacturers also struggled to secure market recognition for their efforts to reduce the environmental impact of products.

Today, the EPEAT registry helps purchasers identify, compare and select environmentally preferable products and provides manufacturers with clear and consistent environmental criteria for the design and development of products.

The EPEAT system was developed and is managed through an open process involving representatives from all stakeholder groups. Manufacturing, environmental advocacy, academic, trade association, government and recycling entities all actively participate.

EPEAT® was designed to:

- Provide an environmental assessment tool for purchasers
- Provide marketplace rewards for innovation by clearly recognizing products that reduce environmental and health impacts

### Goals for EPEAT®

- Provide marketplace rewards for innovation by clearly recognizing products that reduce environmental and health impacts
- Be inexpensive and avoid introducing delays in time-to-market
- Be transparent and offer flexibility to product designers
- Be voluntary but inviting for manufacturers
- Address end-of-life issues faced by the reuse and recycling community
- Be simple and clear to purchasing officials
- Accurately indicate products with environmentally

EPEAT criteria reflect several categories of environmental attributes that cover the full lifecycle of electronic products.

- Reduction/elimination of environmentally sensitive materials
- Material selection
- Design for end of life
- Product longevity/life extension

#### EPEAT® Criteria

- End-of-life management
- Corporate performance
- Packaging

### ENVIRONMENTAL BENEFITS OF EPEAT

EPEAT's manufacturer subscribers must annually report on their sales of all EPEAT registered products.

The lifecycle environmental benefits of those sales are calculated using the [Electronics Environmental Benefits Calculator](#) (EEBC).

***Measurable benefits for the environment***

Over time, 2009 worldwide purchases of EPEAT registered PCs and displays will:

- Reduce use of primary materials by 19 million metric tons, equivalent to the weight of more than 148 million refrigerators
- Reduce use of toxic materials, including mercury, by 1,537 metric tons, equivalent to the weight of 372,000 bricks
- Eliminate use of enough mercury to fill 372,000 household fever thermometers
- Avoid the disposal of 72,000 metric tons of hazardous waste, equivalent to the weight of 35 million bricks
- Eliminate solid waste equivalent to 14,615 U.S. households' annual waste

***Reduced energy consumption***

EPEAT-registered products meet the latest ENERGY STAR® specifications, so they will consume less energy throughout their useful lives. The 2009 sales of EPEAT-registered products will:

- Save more than 10 billion kilowatt hours of electricity—enough to power 900,000 homes for a year
- Avoid 44 million metric tons of air emissions (including greenhouse gas emissions) and more than 93,000 metric tons of water pollutant emissions
- Avoid more than 2 million metric tons of greenhouse gas emissions—equivalent to taking nearly 1.4 million passenger cars off the road for a year

**EPEAT AND GOVERNMENT REGULATIONS**

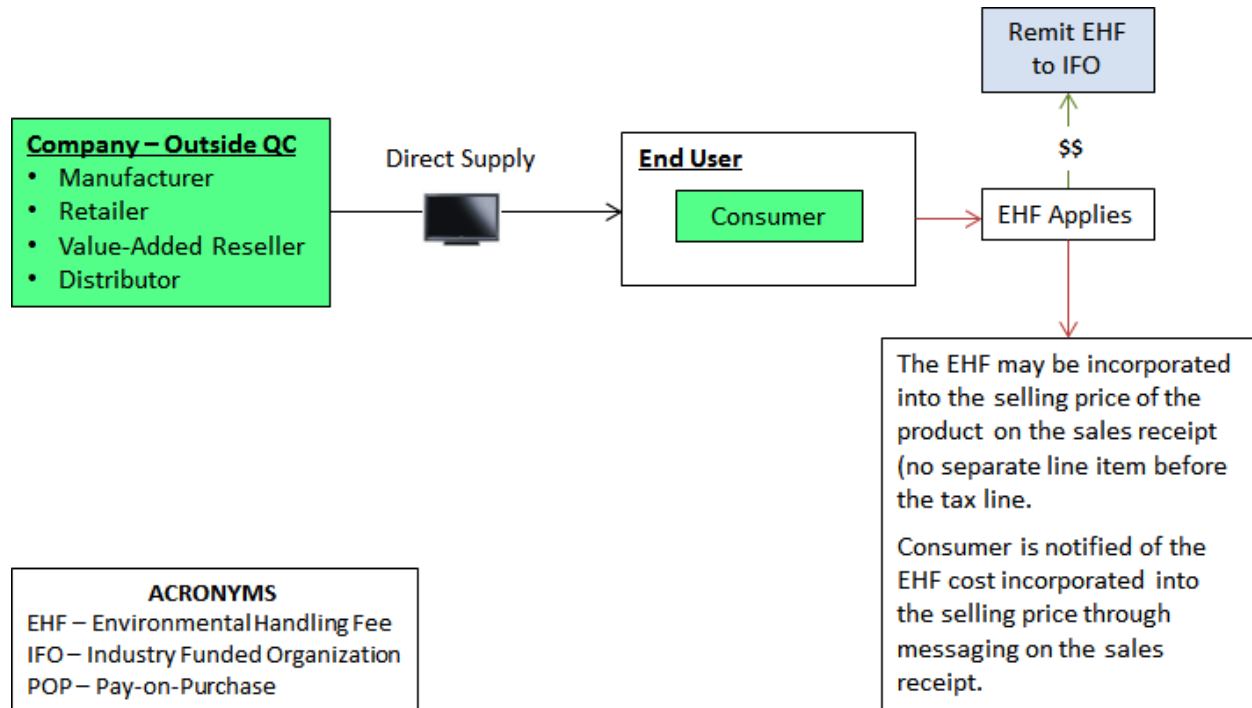
As a voluntary standard, EPEAT helps drive and reward environmental innovation among manufacturers, whereas regulations typically aim to remedy current problems.

In developing EPEAT criteria, stakeholders considered existing regulatory requirements at the national and international levels and whenever possible matched or exceeded these levels to avoid conflict. EPEAT's strength lies in its comprehensiveness as a system that addresses all stages of a product's lifecycle.

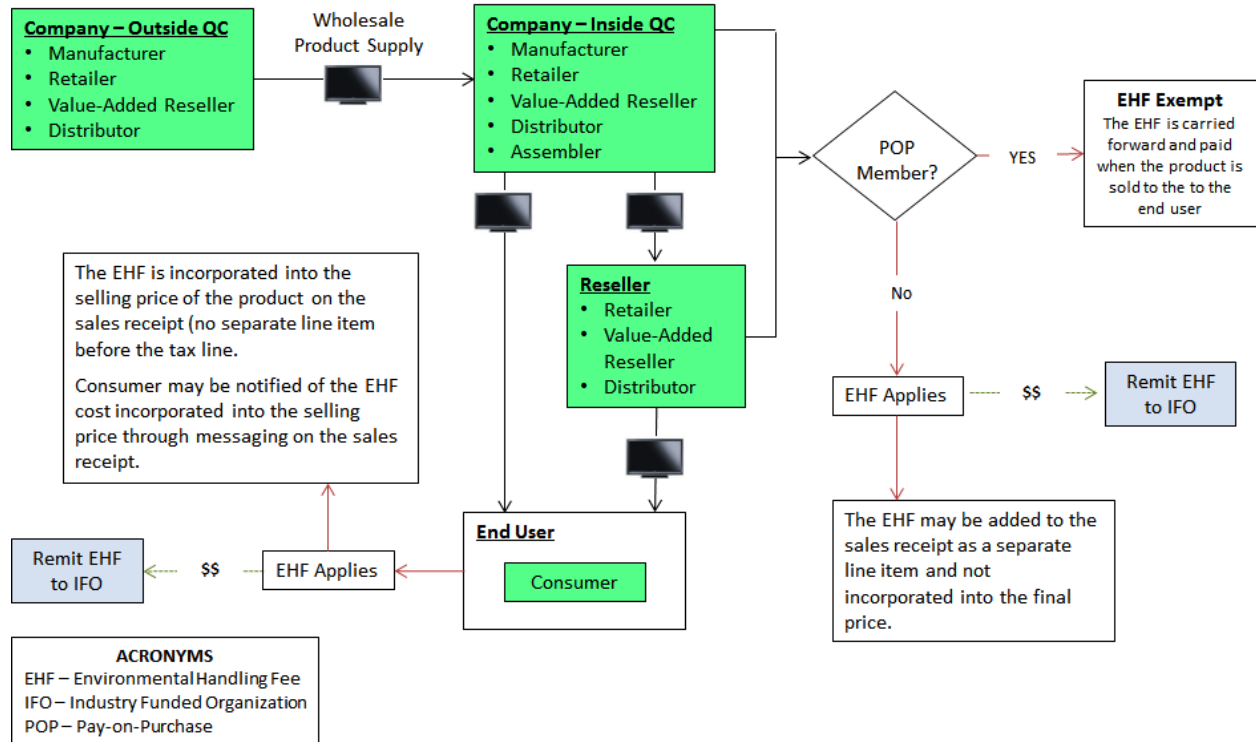
Covered Products	
<b>Current</b>	<b>2012</b>
<ul style="list-style-type: none"><li>• Desktops</li><li>• Laptops/notebooks</li><li>• Workstations</li><li>• Thin clients</li><li>• Display devices (computer monitors)</li></ul>	<ul style="list-style-type: none"><li>• Imaging equipment</li><li>• Televisions</li><li>• Servers</li><li>• Mobile devices</li></ul>

## APPENDIX C – FLOW OF PROGRAM FUNDING

### Example 1: Direct Sale to Consumer



### Example 2: Indirect Sale to Consumer



**Example 3: Indirect Sale to Industrial, Commercial and Institutional Sector**



