

Evolution of Industry-led Electronics Stewardship in Canada

Saskatchewan Waste Electronic Equipment Program

SWEEP



May 31, 2012



Evolution of Industry-led Electronics Stewardship in Canada

1. Origins
2. Programs
3. Recycling Standards
4. Performance Measurement
5. National Governance

Environment Becomes Key Issue for Canadian IT & Consumer Electronics Firms

E-waste front and centre on regulator's "radar":

- EOL consumer electronics & IT equipment going to Canadian **landfills**
- Potential for **toxicity** increases if products are not processed responsibly
- Material **recovery** opportunity for use in next generation products
- **Infrastructure** to divert and recycle these products at nascent stage in Canada
- Must prevent North America's e-waste being **exported** without proper controls

Provincial regulators looking to Extended Producer Responsibility (EPR) as solution



Photos from "Exporting Harm: The High-Tech Trashing of Asia". Prepared by Basel Action Network and Silicon Valley Toxics Coalition, February 25, 2002.

Electronics Regulation Status

Province <i>(program start date)</i>	BC <i>Aug 07</i>	AB <i>Oct 04</i>	SK <i>Feb 07</i>	MB	ON <i>Apr 09</i>	QU	NB	NS <i>Feb 08</i>	PE <i>Jul 10</i>	NF
Phase I Electronics (displays, computers, printers)	●	●	●	● <i>Aug. 2012</i>	●	● <i>July 2012*</i>	★	●	●	★
Phase II Electronics (home, vehicle & portable Audio Video and selected telecomm)	●	★	●	● <i>Aug. 2012</i>	●	● <i>July 2012*</i>	★	●	●	★
Phase V Electronics (photocopiers, media, gaming, medical, servers, peripherals)	● <i>July 2012</i>	■	■	■	■	■	■	■	■	■
Batteries (rechargeable & non-rechargeable)	●	■	■	●	●	★	■	■	■	■

- Regulations currently in place
- ★ Regulations passage expected in 2012
- Regulations not expected until 2013 or later

* To be confirmed



[01]

DESKTOP COMPUTERS + ACCESSORIES

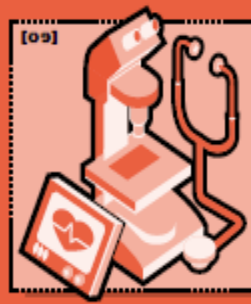
- :: CPU
- :: Keyboard
- :: Mouse
- :: Cables



[05]

IT + TELECOM DEVICES

- :: Ethernet switches
- :: Routers
- :: Telecom bridge/switch
- :: POS Cash register



[09]

MEDICAL MONITORING + CONTROL DEVICES

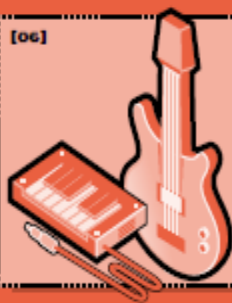
- :: Electronic thermometers
- :: Electronic blood pressure device
- :: Stethoscope
- :: Microscope



[02]

PORTABLE COMPUTERS + ACCESSORIES

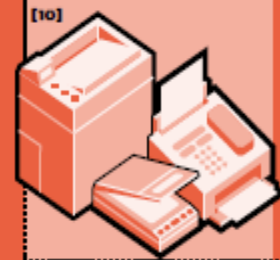
- :: Laptop
- :: Netbook
- :: Tablet computer (iPad)



[06]

ELECTRONIC MUSICAL INSTRUMENTS

- :: Electric guitar
- :: Electronic drum set
- :: Electronic keyboard



[10]

PRINTING, SCANNING + MULTI-FUNCTION DEVICES

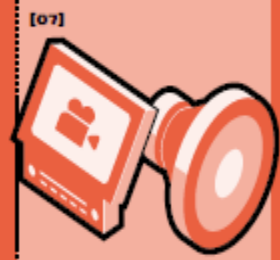
- :: Printer
- :: Fax machine
- :: Scanner



[03]

VIDEO PRODUCTS + ACCESSORIES

- :: Camera
- :: Video console
- :: VCR/DD/PVR players/recorders



[07]

AFTERMARKET VEHICLE AUDIO + VIDEO SYSTEMS

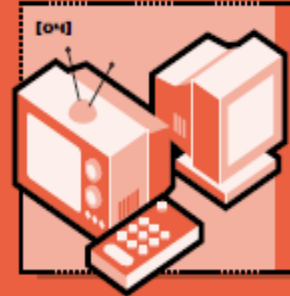
- :: Speakers
- :: Vehicle display
- :: GPS



[11]

AUDIO PRODUCTS + ACCESSORIES

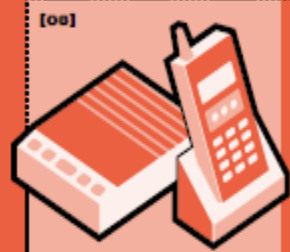
- :: Radio
- :: Record player/stereo
- :: Walkie talkie
- :: MP3 (with earphones)



[04]

DISPLAY PRODUCTS + ACCESSORIES

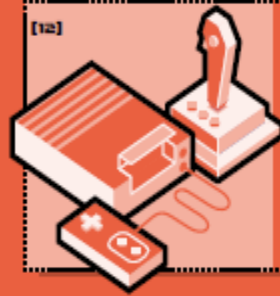
- :: TV (with remote)
- :: Monitor



[08]

NON-CELLULAR TELEPHONES + ANSWERING MACHINES

- :: Telephone
- :: Answering machine

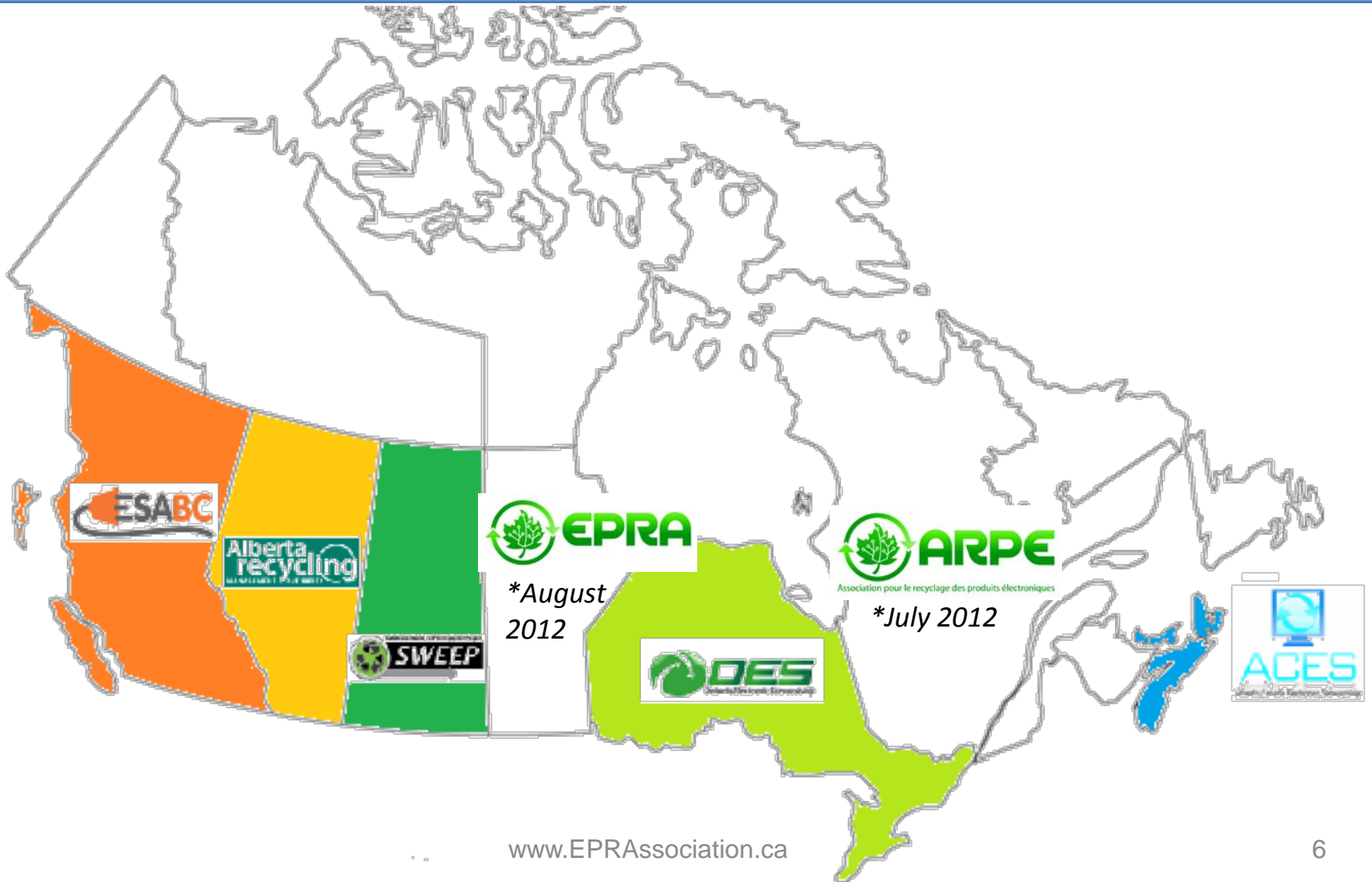


[12]

VIDEO GAMING SYSTEMS + ACCESSORIES






- :: Joystick
- :: Game console
- :: Controller with cable

Electronics Stewardship Rolling Out Across Canada...



Snapshot of Canadian Regulated Electronics Recycling Programs

to December 31, 2011

Program	Registered Industry Members*	Permanent Collection Sites	Phase Collection Start Date	Cumulative Tonnes Collected
	1,602	125	P1: Aug '07 P2: Jul '10	66,089
	1,812	325	P1: Oct '04	82,982
	666	71	P1: Feb '07 P2: Apr '10	11,400
	757	1,286	P1: Apr '09 P2: Apr '10	95,232
	568	43	P1: Feb '08 P2: Feb '09 PEI: Jul '10	15,162
TOTALS	5,405	1,850	* * *	270,865

* this figure includes some duplicate members registered in multiple jurisdictions

Recycler Qualification Program

Recyclers are assessed in accordance with the recently developed **Recycler Qualification Program** (RQP), which incorporates the fourth version for the **Electronics Recycling Standard** into a comprehensive assessment and approval program.











The Electronics Recycling Standard (ERS) was based on several key principles, that are still included in the ERS today:

1. Sound environmental, health & safety controls
2. Prohibit land filling of EOLE
3. Prohibit the use of prison labour in processing EOLE
4. Prohibit the illegal shipping of material to developing/non-OECD countries
5. Enforce downstream accountability of all materials

2010 Scorecard for Regulated & Industry-led Electronics Stewardship Programs in Canada

KEY PERFORMANCE INDICATORS

	 ESABC 2010 British Columbia	 SWEEP 2010-11 Saskatchewan	 OES 2010-11 Ontario	 ACES 2010-11 Nova Scotia, Prince Edward Island
Collection <i>Operational Indicators.</i>  Total Waste Electronic Equipment Collected Measures related to the weight of regulated electronics collected by the program for recycling.	17,145 tonnes Total collected	2,841 tonnes Total collected	34,585 tonnes Total collected	4,888 tonnes Total collected
	3.78 kg/capita Total collected per capita	2.72 kg/capita Total collected per capita	2.62 kg/capita Total collected per capita	4.5 kg/capita Total collected per capita
Access <i>Accessibility Indicators.</i>  Collection site coverage and events Measures related to the convenience of accessing the program to have regulated electronics recycled.	97% % of the B.C. population within 45 minutes (truck) or 30 minutes (carter) of an ESABC collection depot	94% % of the Saskatchewan population within 50 kms or 30 minutes (carter) of an SWEEP collection depot	91% % of the Ontario population within 30 kms of a collection depot	98% % of the Nova Scotia and Prince Edward Island population within 50 kms (truck) or 30 minutes (carter) of an ACES collection depot
	12 Total Collection Events	40 Total Collection Events	452 Total Collection Events	0 Total Collection Events
	110 Total Collection Sites	71 Total Collection Sites	527 Total Collection Sites	42 Total Collection Sites
Awareness <i>Public Awareness and Industry Participation Indicators.</i>  Public awareness and industry participation Measures related to the public's awareness of the program, and the direct participation of regulated industry in the program for environmental compliance.	78% Percentage of population aware of program	82% Percentage of population aware of program	65% Percentage of population aware of program	80% Percentage of population aware of program
	1,615 Participating manufacturers, retailers and other industry members of ESABC	656 Participating manufacturers, retailers and other industry members of SWEEP	816 Participating manufacturers, retailers and other industry members of OES	584 Participating manufacturers, retailers and other industry members of ACES
Costs <i>Financial Indicators.</i>  Total program costs per tonne Measures related to the overall costs of delivering the program, including collection, consolidation, transportation, audits, processing, administration, communications, management and professional fees.	\$1,141 Operational costs per tonne	\$1,364 Operational costs per tonne	\$1,222 Operational costs per tonne	\$1,133 Operational costs per tonne
	\$184 Overhead costs per tonne	\$499 Overhead costs per tonne	\$412 Overhead costs per tonne	\$286 Overhead costs per tonne
	\$1,325 per tonne Total program costs per tonne	\$1,863 per tonne Total program costs per tonne	\$1,634 per tonne Total program costs per tonne	\$1,419 per tonne Total program costs per tonne



- In 2011 Canada's electronics industry created EPRRA, as the national, non-profit entity chartered with improving the efficiency and effectiveness of Canada's industry-led and regulated e-waste stewardship programs.
- Members of Electronics Product Stewardship Canada and the Retail Council of Canada established EPRRA.
- The EPRRA Board of Directors includes senior executives from Hewlett-Packard, Sony, Dell, Toshiba, Best Buy, London Drugs, Staples, RCC, Compugen, and CDW.



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