



**Bell 2012 Annual Report**

**Submitted to the British Columbia**

**Ministry of Environment**

Covering the period of January 1 – December 31, 2012

**July 2013**



<b>Introduction.....</b>	<b>1</b>
<b>1. Products collected .....</b>	<b>2</b>
<b>2. Location of collection facilities.....</b>	<b>3</b>
<b>3. Amount of product collected .....</b>	<b>4</b>
<b>4. Recovery target .....</b>	<b>4</b>
<b>5. Awareness .....</b>	<b>5</b>
<b>6. Product life cycle management.....</b>	<b>6</b>
<b>7. Pollution prevention hierarchy .....</b>	<b>7</b>
<b>Conclusion .....</b>	<b>9</b>
<b>Appendix A : Bell process diagrams .....</b>	<b>10</b>

## INTRODUCTION

British Columbia adopted a regulation on October 7<sup>th</sup>, 2004 (Recycling Regulation, B.C. Reg. 449/2004), under the Environmental Management Act, requesting producers of regulated electronic equipment to establish a stewardship plan for their end of life equipment. A producer is subject to this regulation for its regulated electronic equipment sold, offered for sale or distributed in British Columbia. The stewardship plan must demonstrate how producers apply Extended Producer Responsibility (EPR) for the life cycle management of their products, including collection and recycling.

In response to the above regulatory requirements, Bell Canada has submitted its electronic and electrical equipment stewardship plan specific for Bell's own network and administrative equipment used internally and network equipment sold to Bell Business Market (BBM) customers, subject to the Recycling Regulation phased in on July 1<sup>st</sup>, 2012 under the electronic and electrical product category section 2.3i.

Producers with an approved plan have the obligation to submit an annual report in a manner and format satisfactory to the Director of the British Columbia Ministry of Environment. Although the regulation came into effect on July 1<sup>st</sup>, data is available and has been presented in this report for the entire year.

Bell is ISO 14001:2004 certified for all Bell business sectors across Canada; centralized processes including reverse logistics are established, controlled and monitored on a national basis. Therefore, elements and data in the stewardship plan and in the annual report reflect a centralized management of end of life equipment and everything is reported on a national basis.

Please note that for all Bell residential customer facing equipment for which Bell is considered the Producer, Bell joined the Electronic Products Recycling Association British Columbia; with the exception of mobile devices which are already included in the Canadian Wireless Telecommunications Association (CWTA) Stewardship plan named "Recycle My Cell".



## 1. PRODUCTS COLLECTED

The following is a general list of Bell equipment covered in product categories listed in the BC Recycling Regulation Section 2.3 and included in the Bell Electronic and Electrical Equipment Stewardship plan. This list remains general, as it does not enumerate accessories or peripherals. As the reverse logistics are centralized and established, controlled and monitored on a national basis, please note that elements on this annual report reflect Bell national results and processes for these products.

### Administrative Equipment

- Corded desktop phones
- VOIP and Centrex phones
- Computers
- Printers
- Data equipment
- Global positioning System equipment (Telepod)
- Video and telephone conferencing equipment
- Batteries associated with these electronics

### Telecom Network Equipment

- PBX
- Routers
- Cables
- IP Telephone Systems
- DMS
- Servers
- Modems
- Printed circuit cards
- Batteries associated with these electronics
- Data Equipment



## 2. LOCATION OF COLLECTION FACILITIES *(Recycling Regulation Section 8(2)(b))*

The location of collection points depends on the type of equipment, their condition and their location, as it has an impact on the material flow. Equipment can be redeployed at Bell, donated to a third party, or can be recycled at a ISO 14001 certified electronics recycler, GEEP, under specific contractual agreements with Bell. A collection facility is defined as a point of data source for end of life products collected that are not redeployed internally. Collection facilities as of December 31, 2012 are established as follows :

Collection facilities	Address	Type of equipment collected
GEEP Edmonton	13111 Meridian St. NE, Suite 700, Edmonton, Alberta, Canada T6S 1G9	<ul style="list-style-type: none"> <li>• Bell network equipment</li> <li>• Bell's own landline phones</li> <li>• Bell's own administrative equipment</li> </ul>
GEEP Barrie	220 John St. Barrie, Ontario, Canada L4N 2L2	<ul style="list-style-type: none"> <li>• Bell network equipment</li> <li>• Bell's own landline phones</li> <li>• Bell's own administrative equipment</li> </ul>
GEEP Montréal	2995 - Boul. Le Corbusier, Laval, Quebec, Canada H7L 3M3	<ul style="list-style-type: none"> <li>• Bell network equipment</li> <li>• Bell's own landline phones</li> <li>• Bell's own administrative equipment</li> </ul>
Compugen	100 via Renzo Drive Richmond Hill, Ontario Canada L4S 0B8	<ul style="list-style-type: none"> <li>• Bell's own administrative equipment</li> </ul>
AutoVision Wireless Inc.	360 Deerhide Crescent Toronto, Ontario, Canada, M9M 2Y6	<ul style="list-style-type: none"> <li>• Bell's own Telematics hardware</li> </ul>

For details on the process flows of the products, please refer to appendix A.

Note : Because Bell Canada is reporting as a steward for the first time in 2012, changes in number and location of collection facilities from previous reports is not reported.



### **3. AMOUNT OF PRODUCT COLLECTED** *(Recycling Regulation Section 8(2)(e))*

The same equipment can be redeployed to Bell operations several times before being recycled. To avoid double counting the same equipment, Bell refers only to equipment that leaves Bell operations for recycling or donation.

4,728,550 kg of network equipment, administrative equipment and landline telephones were shipped to GEEP, of which 4,239,979 kg were further processed for material or energy recovery.

The amount of telematics Hardware returned to AutoVision Wireless represents 1,324 kg. All of these were recycled.

Adding to this, Bell has donated 3,359 computers to Computers for Schools, representing a total weight of 24,130 kg<sup>1</sup>.

In total, Bell collected 4,754,004 kg of end of use equipment in 2012; of which 4,265,432 kg (89.7%) were diverted from landfill.

As there is no internal mechanism to distinguish designated materials sold to Bell Business Market customers from non-designated materials, the volume of designated products sold to BBM customers is not available. However, it is important to note that no recycling fees are charged to BBM customers and the Bell recycling services remains available to them.

### **4. RECOVERY TARGET**

Bell has a robust recovery program for all internal use administrative and network equipment which is part of Bell's ISO 14001 environmental management system. We are confident that redeployment and end of life equipment treatment of Bell's internal use equipment are appropriately managed. All BBM network equipment recovered are also part of Bell's ISO 14001 environmental management system.

---

<sup>1</sup> Total weight was determined by using the average weight of a personal computer used in the U.S. Environmental Protection Agency report:  
<http://www.epa.gov/osw/conservation/materials/recycling/docs/app-1.pdf> (page 18)



Bell has set recovery rate targets in the Stewardship Plan for network equipment (internal use and business market) and internal use administrative equipment of 100%. However, these recovery rates are not accurately measurable because Bell does not monitor the redeployment rate of equipment used internally and external business market decommissioning activities.

Furthermore, the recovery targets are not necessarily an appropriate measurement of the performance of Bell's program, as equipment purchased in a certain year is not decommissioned in the same year. Therefore, Bell will work in the coming year to define proper performance measurement targets.

## **5. AWARENESS**

Bell has in place a strong awareness program to ensure that technicians are knowledgeable about Bell's recovery programs:

### Online Training

Bell's Environmental Policy is one of the Company's key policies and is reviewed by all Bell employees on an annual basis. The Corporate Responsibility and Environment team has deployed an online training tool which covers the regulatory requirements and environmental procedures Bell employees must follow while carrying out their duties. Employees must pass a test annually and receive the minimal mark (8/10). Modules 7 and 8 cover non-hazardous residual materials ensuring that employees are aware of the location of collection facilities, and know how to manage used products in a safe and compliant manner.

### Environmental Website

Bell's intranet provides information on processes described in the Bell Stewardship Plan.

### Signage

Bell has already displayed signage on recycling bins to ensure that Bell employees are aware of what must be recycled.



## **Network equipment deployed to customers**

### *Bell Website*

Bell's corporate website as well as its 2012 Corporate Responsibility Report provide information on elements of the Bell Stewardship Plan.

### *Bell Technicians*

A service order specific to each customer informs Bell technicians on the service to provide, including instructions on recovery of used Bell equipment.

### Bell sales contract

Bell Canada offers a recovery service for end of life equipment. A clause to this effect can be included on a sales contract if customers wish to use this service.

## **6. PRODUCT LIFE CYCLE MANAGEMENT**

Bell encourages its manufacturers to design products with special consideration for the environmental impacts of the product during its whole lifecycle. This is performed when making choices about which products or services to buy, we consider ecological criteria ranging from energy consumption and recyclability to durability and the presence of hazardous or recycled materials. For example, Bell is a registered ENERGY STAR® program participant. We promote ENERGY STAR® qualified products and already purchase many qualified products for Bell operations, such as computers, monitors and printers. Bell also actively participates in the NRCAN committee dedicated to the establishment of voluntary energy consumption standards for consumer electronics.

Furthermore, in accordance with Bell's procurement policy, we seek out suppliers who demonstrate a strong commitment to sustainable development through the adoption of rigorous environmental principles. Since February 2009, all new contracts entered into by Bell include a standard clause indicating that the supplier shall conform to Bell's Supplier Code of Conduct. Bell also makes it clear that its suppliers must take all reasonable measures to respect the Supplier Code of Conduct, not only in their own business operations, but also along their own supply chains. Each year Bell performs audits within its supplier base to validate their commitment to Bell's Supplier Code of Conduct.





## 7. POLLUTION PREVENTION HIERARCHY

As part of its ISO 14001 certified Environmental Management System, Bell is committed through its Environmental Policy to “prevent, control and reduce releases into the environment.” To be aligned with its environmental commitment, and in order to promote and support cost-effective resource and waste minimisation initiatives, Bell has pursued and implemented initiatives that support the 4R principles and the pollution prevention hierarchy.

### “Reduce”

All agree that the most effective way to reduce emissions and electronic wastes is to consume less. In this respect, Bell has put in place a series of programs and initiatives to reduce its consumption of resources. The main resource consumption streams at Bell are the following:

- Energy
  - Bell purchases energy-efficient computers and telecommunications network equipment and makes optimal use of existing computers and network equipment. The latter is achieved by migrating services to new, more effective equipment and by using renewable energy sources. For example, in 2012, Bell upgraded power plant equipment (491 rectifiers) at various Central Offices to high-efficiency models and shut down 850 pieces of legacy equipment.
  - Bell is using its telematics equipment to monitor and minimise the idling time of its fleet. In 2012 the anti-idling campaign resulted in a reduction of 5% in idling time, representing savings of 160,000 litres of fuel or approximately 367,000 kg of CO2 equivalent emissions.
- Digitalisation/Virtualisation
  - The number of local printers is reduced to maximize the use of multifunction devices. This initiative allows reducing the consumption of paper and the acquisition of printers.



- Through virtualization, we decommissioned 760 servers in 2012, reducing capital requirements and energy usage by approximately 3.2 million kWh per year – enough to heat 318 households for a year – and cutting greenhouse gas emissions by 206 tonnes of CO<sub>2</sub> equivalent.

### “Reuse”

Bell emphasizes the importance of reusing electronic and IS/IT equipment. When equipment is no longer required in a department or is returned by customers, the equipment is first tested to determine its condition. Reusable equipment is redeployed internally for a future use or is refurbished and shipped to a secondary market. Bell also donates equipment to not-for-profit organizations. In 2012, Bell donated 3,359 used computers to Computers for Schools, an organization that redistributes computers to schools and non profit organizations across Canada.

### “Recycle, Recover material or energy”

Administrative and Network equipment which could not be reused is transferred to an ISO 14001 certified electronics recycler. 89.7% of material recovered through this program was diverted from landfill in 2012.



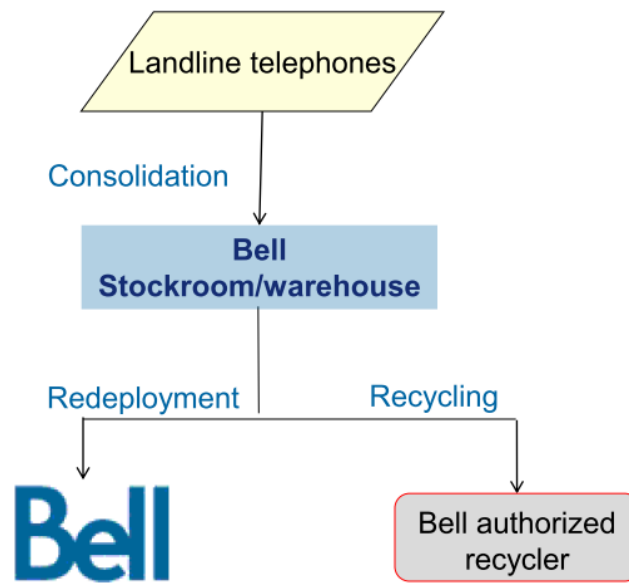
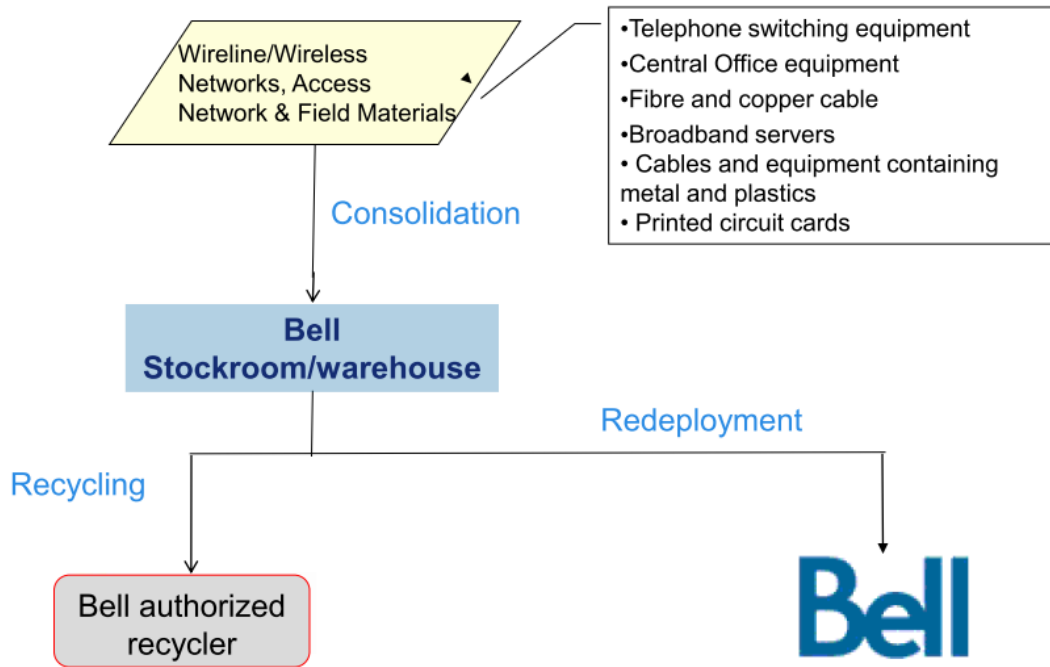


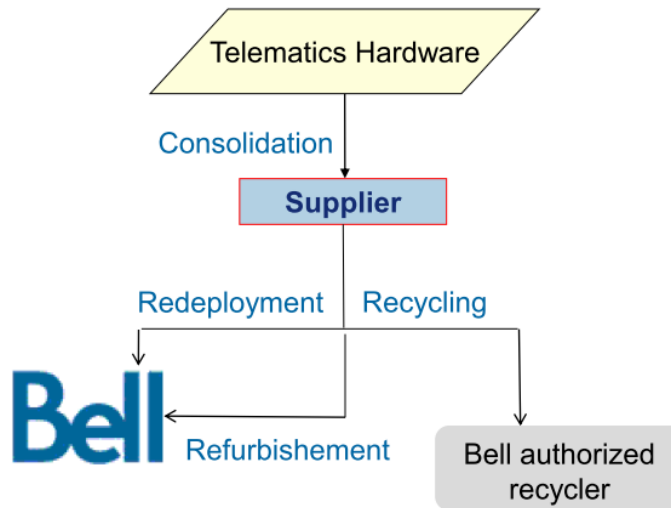
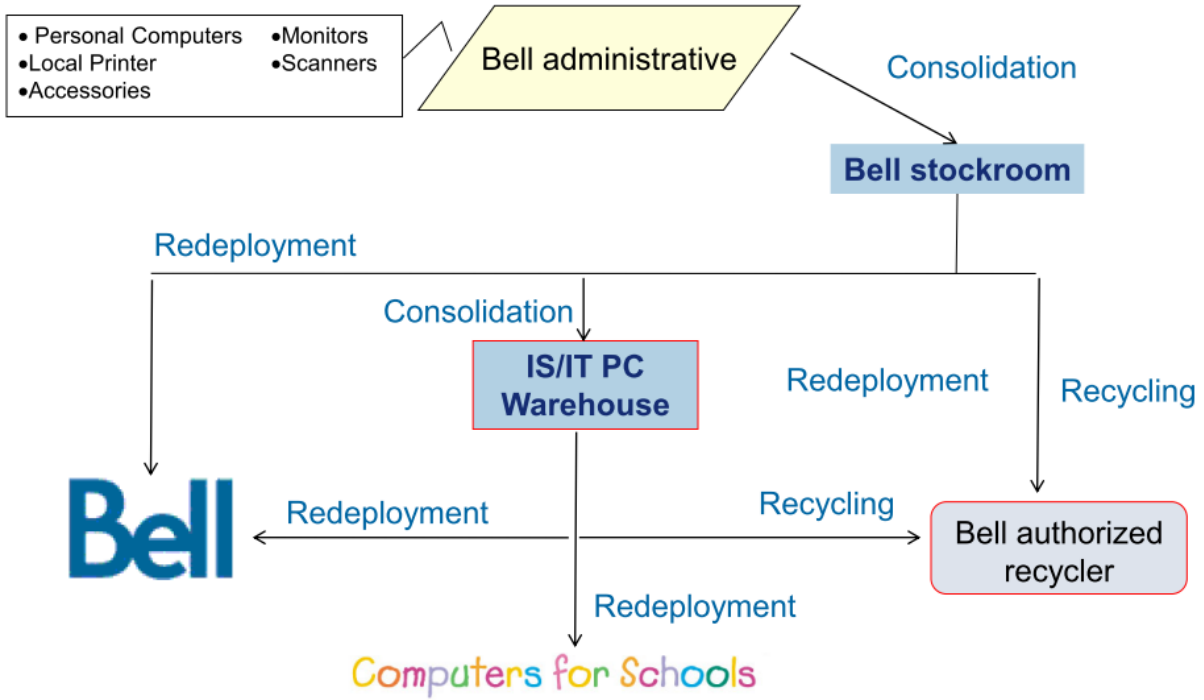
## CONCLUSION

Bell is pleased to report that in 2012, Bell operations recovered 4,754,004 kg Bell's network and administrative equipment, resulting to a diversion rate of 89.7%. We are also proud to say that this recovery program is part of Bell ISO 14001:2004 certified environmental management system and is subjected to numerous internal and external audits throughout the year.



## APPENDIX A : BELL PROCESS DIAGRAMS





**Legend :**



Red boxes represent data sources

