TELUS Communications Company

Annual Report to the Director

2016 Calendar Year

Reporting period January 1 – December 31, 2016

Submitted to: **BC Ministry of Environment**
Director, Extended Producer Responsibility Programs
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Table of Contents

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TELUS Communications Company 2016 Report to Director, Waste Management

1. Executive Summary

Products within plan	*Telecommunication equipment:* ○ *Cordless phones and corded desktop, VOIP phones and analog terminal adapters;* ○ *Public Access Equipment;* ○ *Obsolete network infrastructure equipment (switches, servers), External customer networks, Servers, Optical network termination equipment, Internet equipment (routers, modems), Network cards;* ○ *Video and teleconferencing equipment;* ○ *TV equipment (PVRs, receivers, remote controls), Satellite TV equipment;* ○ *Global Positioning Systems (GPS);* ○ *Batteries; and* ○ *Cables/accessories.*
Program website	http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/ewaste_stewardship

Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(a)	Public Education Materials and Strategies	a description of educational materials and educational strategies the producer uses for the purposes of this Part - *Public information posted on telus.com website providing instructions on how to return equipment to TELUS at no charge.* - *To provide information to our customers TELUS client care agents are made aware of return process by way of online system, internal communication, bulletins.* - *TELUS Technicians are made aware of return process by way of inter-company communication, bulletins.* - *Customer Mail Back kit including instructions, carton, prepaid waybill.*
Part 2, section 8(2)(b)	Collection System and Facilities	the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report; *Fourteen collection facility locations:* - *Communication Test Design Inc. (CTDI), Delta BC* - *Telmar Network Technology (Telmar), Calgary AB* - *GEEP, Edmonton AB* - *Ccon Metals Inc., Abbotsford BC* - *Metalex Products Ltd, Richmond BC* - *Edmonds Recycling, Langley BC* - *Sumas Environmental Services, Burnaby BC* - *Archway, Mississauga ON* - *UTI Contracts Logistics & Distribution, Brampton ON* - *Happy Stan's Recycling, Port Coquitlam BC* - *Schnitzer Steel Canada, Victoria BC* - *Canadian Energy, Burnaby BC* - *Call2Recycle, Vancouver BC* - *Fleet Complete, Vancouver BC*

Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	efforts taken by or on behalf of the producer to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the life cycle; ***In 2016 TELUS began refurbishing power adapters for reuse. This has resulted in over 100,000 power adapters nationally having their lifespan extended.*** ***Last year TELUS begun a multi-pack process with our Supplier to pack multiple refurbished TELUS TV modems and set top boxes into one carton thus reducing the amount of packaging equipment. These multi-pack cartons are made of 50% post-consumer paper. We continue to use the multi-pack process in 2016.*** ***Although TELUS is not a manufacturer of equipment (TELUS branded or not) that we sell or rent, we endeavor to work with our manufacturers to encourage them when designing for the environment to use minimal packaging materials; FSC certified, high recycled content, and or recyclable or biodegradable materials. Where appropriate and applicable, TELUS will also endeavor to include corporate social responsibility requirements in RFPs when selecting vendors.***
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	a description of how the recovered product was managed in accordance with the pollution prevention hierarchy ***TELUS' triage of recovered equipment enables TELUS to follow the pollution prevention hierarchy, such as the regulation requires, to ensure pollution prevention is not undertaken at one level unless or until all feasible opportunities for pollution prevention at a higher level have been taken.*** *See section 6*
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	Provide a summary of the total amount of product sold, collection volumes and, if applicable, recovery rates achieved by the program based on the approach included in the approved program plan. Also provide a summary of total product recovered by regional district. ***Total Program Product Collection Volumes in 2016 is 818 metric tonnes (mt)*** ***Total Program Product Distributed into BC in 2016 is 1,027 mt*** ***Total Program Product Recovery Rate in 2016 is 79.59%*** *See section 7 for details*
Part 2, section 8(2)(e.1)		[See Section 7 for breakdown per regional district] ***See Section 7***
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	***[Provide report reference to the independently audited financial statements]*** ***Not applicable as TELUS fully funds program.***

Comparison of Key Performance Targets		
Part 2 section 8(2)(g); See full list of targets in Plan Performance		
Priority Stewardship Plan Targets (as agreed with ministry file lead)	**Performance**	**Strategies for Improvement**
1. ***2016 Target of 75% recovery***	***79.59% overall recovery***	***Customer Premise Equipment (Rental) Return Improvement Implementation Plan Development & Project Launched.***

2. Program Outline

Overview

TELUS Communications Company (TELUS) developed its own BC Electronic Equipment Stewardship Plan to adhere to the requirements set in the BC Recycling Regulation – Electronic and Electrical Product Category.

The TELUS team's dedication to preserving and protecting our environment contributes to our role as a leading socially responsible corporation. Consistently recognized for our sustainability practices, TELUS has been listed on the Dow Jones Sustainability North America Index for 16 years and was added to its World Index in 2016, one of only nine Canadian companies across 24 industry groups to share this distinction.

Environmental compliance

Our dedication to our environment goes beyond compliance. We are taking action on climate change and improving resource productivity. We are governed by our ISO certified Environmental Management System.

Following the successful certification of our environmental management system (EMS) to the ISO 14001 standard in 2015, TELUS completed the required maintenance audits to maintain certification in 2016. The globally recognized ISO 14001 standard has recently been updated (ISO14001:2015) and we will be working to adapt our current system to the new version through 2017. Maintaining this ISO standard also requires continual improvements to our environmental management processes, and TELUS is committed to identifying even more ways to better our performance.

Products Collected

TELUS has been collecting, refurbishing for reuse, reselling, and recycling electronics using our reverse logistics processes that are established, controlled and monitored on a national basis. TELUS' Plan addresses rental and retail TELUS customer premise equipment as well as our internal use equipment. Mobile devices are not included in this Stewardship Plan as TELUS (as a remitter) submits the data to the Electronic Product Recycling Association in BC (EPRA-BC).

The following is a general list of categories of equipment with regards to the requirements outlined by the BC Recycling Regulation – Electronic and Electrical Product Category. This list is an overview and does not list accessories or additional paraphernalia that might be associated with each equipment category. TELUS is committed to be responsible for all new products TELUS introduces into the marketplace.

- *TELUS TV Equipment (Set-top boxes, PVRs, Receivers, Remote Controls)*
- *TELUS Internet Equipment (Routers, Modems, Gateways)*
- *Network Printed Circuit Cards*
- *Public Access Equipment*
- *Cordless and Corded Phones (wireline)*
- *VOIP phones*
- *VOIP Analog Terminal Adapter*
- *Satellite TV equipment*
- *Global Positioning System (GPS) equipment*
- *Video and telephone conferencing equipment*
- *Batteries associated with these electronics*

Website:
http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/ewaste_stewardship

3. Public Education Materials and Strategies

Reference: Recycling Regulation – Part 2, section 8(2)
(a) a description of educational materials and educational strategies the producer uses for the purposes of this Part

Education and Strategies

1. ***Call Centre Awareness – call centre representatives are informed about the program and are equipped with the online information necessary to advise customers of their equipment return options.***
2. ***TELUS Call Centre representatives coordinate pickup and return of business customer equipment to TELUS.***
3. ***Return mailer kits including return instructions, carton, pre-paid waybill, provided to TELUS TV and TELUS Satellite TV customers. This program was expanded to include all TELUS TV and high speed internet access (HSIA) customers.***
4. ***TELUS Website – our website contains information for customers on how to return items. http://about.telus.com/community/english/about_us/for_our_customers/regulations_%26_policies/environmental_policy/return_%26_recycle_program.***
5. ***TELUS is a member of the Recycling Council of BC and participates in the BC Recycling Hotline service.***
6. ***TELUS Technician Awareness – our technicians are informed about the program and TELUS' commitments to our customers with respect to equipment being returned.***
7. ***TELUS Team Members Awareness –team members are provided with current information regarding the return of electronic equipment in this plan through a number of mechanisms. Mechanisms include online process information on our internal company website, inter-company bulletins, TELUS Green Teams, internal social media, and as required one on one email and phone conversations.***
8. ***TELUS introduced our Nudge Rewards app to all TELUS team members. Nudge Rewards is a mobile app that engages employees via push notifications with tidbits about the energy use of the buildings and recyclable office materials in the form of trivia, fast-facts and contests. It also calls for brainstorming. Pop-ups appear to get feedback from app users to create company-wide initiatives that everyone has a stake in.***
9. ***TELUS sales contracts offer 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.***
10. ***Online Training for TELUS Team Members: TELUS Integrity Course is one of the Company's key policies and is reviewed by all TELUS team members on an annual basis. This compulsory course is deployed as an online training tool which covers the legal and regulatory requirements that TELUS team members must follow while carrying out their duties. The course includes environmental case studies specific to electronic waste.***

All of our key business units and stakeholders are involved in reducing the amount of material sent to landfills and improving recycling and re-use. Our biggest successes in 2016, include:

- ***A newly formed Waste Reduction Working Group, tasked with the implementing projects in our Waste Reduction Strategy***
- ***Continuing to rely on our Green Teams and National Sustainability Council to build engagement and behavior change toward reducing waste across TELUS***
- ***Conducting an additional 16 waste audits across Canada to gain a more complete picture of what we are sending to landfill***

These information-gathering exercises helped us identify factors that are influencing our diversion rates. Over the course of 2016 we continued on scouting a path to 90 per cent diversion, while implementing practical improvements in our operations.

4. Collection System and Facilities

Reference: Recycling Regulation – Part 2, section 8(2)
(b) the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;

Fourteen collection facilities owned by TELUS or TELUS Contractors/Vendors receive customer returns through recovery mechanisms. Both TELUS Technicians and TELUS Contractors recover equipment from customers and return to collection facilities. To ensure that all of our customers have access to a collection facility, TELUS provides a mail back program. TELUS residential customers have access to a Canada Post retail outlet in their area and TELUS business customer are provided with a courier pickup service.

Collection facility locations:

- ***Communication Test Design Inc. (CTDI), Delta BC***
- ***Telmar Network Technology (Telmar), Calgary AB (January – June 2016)***
- ***GEEP, Edmonton AB***
- ***Ccon Metals Inc., Abbotsford, BC***
- ***Metalex Products Ltd, Richmond BC***
- ***Edmonds Recycling, Langley BC***
- ***Sumas Environmental Services, Burnaby BC***
- ***Archway, Mississauga ON (July – December 2016)***
- ***UTI Contract Logistics & Distribution, Brampton ON (January – June 2016)***
- ***Happy Stan's Recycling – Port Coquitlam BC (special network removal project)***
- ***Canadian Energy, Burnaby BC***
- ***Call2Recycle, Vancouver BC***
- ***Schnitzer Steel Canada, Victoria BC***
- ***Fleet Complete, Vancouver BC***

To provide easy access to TELUS' collection facilities in all Regional Districts, Canada Post, couriers (e.g. FedEx), and TELUS technicians act a recovery mechanisms that increase public access to the Collection Facilities. For example, Canada Post has over 6,600 retail outlets across Canada. The Canada Post retail outlets and the location of each are available on the Canada Post website at *http://www.canadapost.ca/cpotools/apps/fpo/personal/findPostOffice*

5. Product Environmental Impact Reduction, Reusability and Recyclability

Reference: Recycling Regulation – Part 2, section 8(2)
(c) efforts taken by or on behalf of the producer to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability at the end of the life cycle;

Overview of National Supply Chain Sustainability

Collaboration

We choose our partners thoughtfully and in alignment with our environmental and social values. This helps us support our customers and team members who aim to make the most sustainable choices possible. Our commitment includes:

- ***Sourcing products and services responsibly***
- ***Building and maintaining strong supplier relationships***
- ***Providing customers with sustainable solutions and support***
- ***Managing end-of-life and reuse of equipment and facilities.***

Partnering for sustainable development

From product design to raw material sourcing by our suppliers, all the way to our customer's use -- and even reuse -- of our products, supply chain sustainability practices matter. We choose to work with suppliers who demonstrate a strong commitment to sustainable development by adopting meaningful ethical, labour, health and safety, and environmental principles in their organizations. By integrating these principles, our suppliers help to ensure the well-being of employees, contractors and communities.

We demonstrated this ongoing commitment to sustainability in our supply chain in 2016 by:

- *Implementing initiatives to enhance customer experience and reduce costs*
- *Developing new processes to ensure supplier compliance with TELUS sustainability practices*
- *Initiating process improvements to divert waste and increase recycling*
- *Continuing partnerships with supplier diversity organizations and accredited vendors*
- *Further strengthening our supplier governance practices, with a focus on risk.*

Environmental and social standards

TELUS adheres to strict internationally recognized environmental and social standards and we expect our suppliers to do the same. We identify and minimize environmental and social risks in our supply chain in several ways: Critical Suppliers Corporate Social Responsibility Monitoring: in 2016, we engaged a third party vendor to monitor, identify areas of improvement, and collaborate on best practices in social responsibility and sustainability for all our critical suppliers. The monitoring and supplier assessment is based on a number of international standards including the Global Reporting Initiative, UN Global Compact and ISO 26000. The monitoring will be fully implemented in early 2017, with the goal of expanding the scope beyond our critical suppliers.

Supplier Code of Conduct

Our suppliers have a contractual obligation to abide by the TELUS Supplier Code of Conduct. Our suppliers are expected to comply with all applicable environmental, labour and human rights laws and are encouraged to have a strategy, including policies and programs to manage and monitor compliance with these laws and international standards. For example, suppliers are expected to manage, monitor and reduce the environmental impact of the following:

- *Consumption of resources (e.g., fuel, electricity, water, paper, etc.)*
- *Usage, handling and disposal of hazardous and non-hazardous wastes*
- *Release of contaminants into the air (e.g., greenhouse gas emissions, ozone depleting substances, volatile organic compounds)*
- *Release of contaminants into water and soil*
- *Recovery and appropriate disposition of materials*

In 2016, several initiatives were expanded and introduced:

- *Enhancements to our National Managed Spares Program resulted in:*
- *Improved availability and spare parts level management*
- *Reduced system outage times through centralization*
- *Increased revenue from unnecessary parts resale by $0.4million*
- *Savings of $2 million in repair costs*
- *5,300 network equipment parts not being sent for unnecessary repair*
- *Wireless device repair process enhancements that:*
- *Reduced the need for a repair through improved quality, diagnostics and customer support, leading to an improved customer experience and reduced use of resources*
- *Improved the ease and speed of repair for consumer and business customers leading to a 7 per cent year-over-year reduction in devices submitted for repair*
- *Eliminated the need to ship 10,650 devices weighing approximately 1,200 Kg (approximately 50 per cent by air)*
- *Saved customers at least one trip to a TELUS store and a seven-day wait time if their phone was sent in for repair*
- *Reduced the frequency of product pickup/drop off between plants and service centres from twice a week to once a week, eliminating 206 Kg of CO2e emissions*
- *Through our Wireless device certified pre-owned program we recovered 120,708 returned devices that otherwise would have been sent for e-waste processing.*

In 2017, deliverables will include a focus on initiatives in our fleet and sustainability enhancements to our procurement processes.

Process improvement

At TELUS, our goal is to integrate environmental thinking into all facets of our supply chain. Defined as sustainable supply chain management, this includes product design, material sourcing and selection, manufacturing processes, delivery of the final product as well as end-of-life/re-use management of the product after its useful life. From 2013 through 2016, we re-engineered the end-to-end process for supply and asset recovery of products used by our customers to improve:
• Product traceability
• Customer experience.
By implementing a new system that allows customers who cancel their TELUS subscription to more easily return their TV and Internet equipment, we have increased the return rate of equipment from 65 to 95 per cent, as well as increased the number of refurbished units we can re-use, diverting them from recycling and landfill.
In 2016, in addition to improving the volume and diversity of assets being recovered through various programs, we launched or enhanced initiatives and processes targeted at reducing packaging, transportation and materials handling:
• Wireline Device and accessories recovery: we re-used 622,882 pieces of wireline equipment and reclaimed for re-use over 250,000 parts from returns (e.g., smartcards, power adaptors, remote controls, micro filters, modem stands and cables).
• Multi-pack initiative: the introduction of Lean Principles helped us further reduce packaging materials (cardboard and polystyrene) during the refurbishment process. We also extended this initiative to our main equipment vendor for new purchases. This led to:
• Savings of $1 million
• 460,000 fewer cardboard boxes purchased
• Improved box re-design that reduced material content by 25 per cent
• Improved productivity as a result of new anti-static packaging
• Re-used 38,000 boxes from installers, improving the quality of returned product and reducing the amount of plastic replacement parts used in the refurbishment process.
• Double stack trailer: packaging improvements allowed us to optimize pallet orientation and stacking in trailers, saving $225,000 in direct freight costs and reducing CO2e emissions.
• Wireline – Set Top Box (STB) software load: we created a more efficient and fully automated software process that led to $140,000 in savings, increased product quality, reduced rework, handling and transport as well as reducing lead time and inventory constraints.
• Wireline equipment kitting: we streamlined the process for kitting refurbished Satellite TV equipment (adding accessories and collateral) moving it earlier in the refurbishment process. This reduced handling and the need to reopen packaged product, which led to reduced process lead time and reduced errors as well as cost savings of $37,000.
• Network equipment decommissioning and asset recovery: we decommissioned old network equipment and actively recovered these assets through a central process. Equipment was assessed for re-use within TELUS, marketed and sold for re-use, or recycled. This led to $965,000 in revenue and the recycling of 5,280 tonnes of network equipment.
• Diversion from landfill: we actively manage asset reclamation and recycling for products and materials that cannot be re-used or re-sold to maximize the amount of material that is diverted from landfill and recycled as raw material. As recycling technology improves, we will add to the range of materials that are recycled. In 2016, a total of 10,738 tonnes of equipment and materials were diverted from landfill.

Packaging reductions
Our wireline team has been busy working with suppliers to redesign packaging for innovative wireline products to reduce packaging waste overall. They have also redesigned the equipment recovery process. In the past, any time a customer needed to send a wireline product back to TELUS, a return-paid cardboard box was shipped to the customer. However, these boxes were seldom used and generated needless waste. The wireline team now asks the customer what sort of return packaging is required for the equipment, lowering the amount of excess packaging generated.

Waste reduction at the source

In 2016, we worked with our internal and external stakeholders to identify and action new opportunities to reduce our environmental impact. We:
• Enhanced product packaging design which led to time, space, resource and financial savings
• Reduced the number of trucks required to move materials through our supply chain, saving money and reducing CO2e emissions
• Diverted 1,250 KG of wood from landfill by sending 250 wooden cable reels to a recycler
• Implemented a transportation approval process to confirm urgency of material transfers between our cable yards
• Identified that our third-party logistics provider was shipping hardware (e.g., nuts, bolts, etc.) in individually labelled bags for each piece. Changing this practice is leading to cost savings for both partners as well as less waste.

• Although we were successful in implementing new waste reduction initiatives in 2016, we also encountered challenges:
• We have not yet been able to source a reliable fibre recycling vendor
• Gaining support from our fibre drop/multiport vendor to reduce packaging is taking longer than anticipated. We are working with them to review the cost and environmental savings to reinforce the positive impact for both partners.

In 2017, we will continue to seek out opportunities to reduce waste across our supply chain. Our intent is to:
• Further reduce transportation costs and CO2e emissions related to the movement of materials
• Drive our Procurement 2020 program forward, so that we can focus on more strategic sustainability sourcing activities and further reduce our costs
• Implement our Fleet Sustainability Strategy to further reduce fleet related greenhouse gas emissions
• Explore further options to reduce TELUS-branded packaging for wireless accessories
• Re-evaluate the process for internal IT deliveries to TELUS personnel to determine if packaging reductions can occur
• Explore options to consolidate scheduled shipments to our field warehouse locations, reducing the number of trucks on the road
• Work with our third-party logistics vendor to improve inventory planning and explore options to consolidate shipments from our regional distribution warehouse to our field warehouses without impacting customer service levels or key performance indicators
• Work with our third-party logistics vendor, Purchasing, and Inventory Planning teams, to explore options to reduce the distance that materials travel in our internal supply chain before reaching the customer
• Take the next steps in our cross-functional initiative to improve testing of set top boxes, modems and routers, with the aim of reducing our No Fault Found on device returns (currently at 95 per cent).

Environmental Management System

Our suppliers are expected to be aware of TELUS' Environmental Policy and relevant aspects of our environmental management system, which is certified to the ISO 14001:2004 standard.

TELUS' processor that recycles our end of life electronic products are third party accredited with ISO 14001 and ISO 9001 certification, RQP (Recycler Qualification Program), R2 certification – Responsible Recycling Practices, and other certifications. The recycler of our lead acid batteries processes are regulated by the BC Ministry of the Environment, as well as industry associations.

6. Pollution Prevention Hierarchy and Product / Component Management

Reference: Recycling Regulation – Part 2, section 8(2)
(d) a description of how the recovered product was managed in accordance with the pollution prevention hierarchy;

By virtue of the triage system TELUS utilizes for its electronics, pollution hierarchy is considered throughout the process. All recovered items are reused where possible and recycling is used as the last resort. TELUS defines what items are to be refurbished for reuse; what equipment can be sold for reuse; what is to be returned to our vendor under warranty; and what products must be recycled. Upon TELUS receiving the rental equipment it is tested. Working units are refurbished and restocked for reuse; defective units under warranty are returned to the manufacturer; defective units not under warranty that are beyond economical repair are recycled by TELUS' authorized electronics recycling contractor.

Program Products collected are reported by End of Fate by level on the Pollution Prevention Hierarchy:

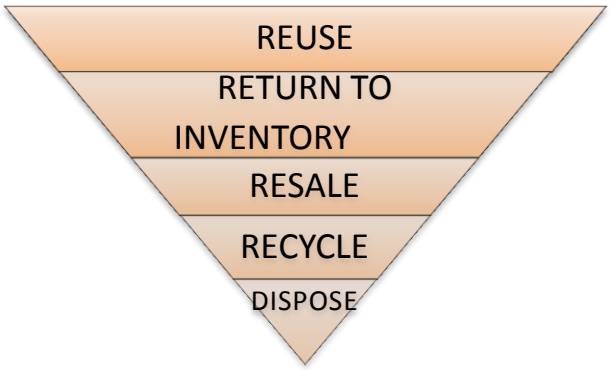
- *Reuse: These are TELUS TV Future Friendly Home (FFH) devices that are either reused by TELUS or sold for the purpose of reuse or refurbishment for reuse. Our 2016 FFH reuse rate was 63 percent.*

- *Recycle: These are products that are processed into an End of fate commodity (e.g. Ferrous Steel, Plastics, Aluminum, Copper, Glass, Lead, etc.). In 2016 over 936 mt of electronics and the associated batteries was recycled from our products collected in BC.*

- *Recover into energy: There currently are no processes for recovery into Energy although TELUS closely monitors developments in this industry.*

- *Residual Waste: waste going to landfill or hazardous waste from all sources that is not reusable. For products and materials that cannot be reused or resold, TELUS pursues opportunities to recycle and divert these assets from landfills. We continue to enhance our recycling and diversion programs in our operations and are collaborating with our property managers and waste haulers with the goal of establishing waste diversion targets.*

Disposition Hierarchy



Acceptable Product End of Fate

Product Type	Reuse	Recycle	Energy Recovery	Residual Waste
TELUS TV Equipment and accessories	Preferred	Optional	N/A	N/A
Telsets	Preferred	Optional	N/A	N/A
Network Equipment	Preferred	Optional	N/A	N/A
GPS Equipment	Preferred	Optional	N/A	N/A
Batteries <2 kg	N/A	Preferred	N/A	N/A
Batteries >2 kg	N/A	Preferred	N/A	N/A

Estimated Product End of Fate Data for the year ended December 31, 2016

Product Type	Reuse (%)	Recycle (%)	Recovery (%)	Residual Waste (%)	Unknown (%)
TELUS TV Equipment	63%	37%	0	0	0
TELUS TV Accessories	40.6%	59.4%	0	0	0
Network Equipment	45%	55%	0	0	0
Telsets	4%	96%	0	0	0
GPS	90%	10%	0	0	0
Batteries <2 kg	0	100	0	0	0
Batteries >2 kg	0	100	0	0	0

TELUS' processors provided TELUS with an end of fate flow chart that describes where our products are recycled (City and Province or Country) and the material recovered from them such as steel, copper, aluminum, precious metals, and plastics. This processing flow takes the material recovered to a point where the processor sells the material recovered to their buyers for further processing. Our electronics recycler even sends the dust from the bag-houses for processing.

Processing Pathways

Product Type	Transfer to direct processor in BC (%)	Transfer to direct processor or multi-step processor in North America (%)	End of Fate Description
TELUS TV Equipment and accessories		100%	Processed for material recovery (metals, precious metals, plastics)
Telsets		100%	Processed for material recovery (metals, precious metals, plastics)
GPS		100%	Processed for material recovery (metals, precious metals, plastics)
Network Equipment		100%	Processed for material recovery (metals, precious metals, plastics)
Batteries <2 kg		100%	Processed for material recovery (nickel, cobalt, cadmium, lead, iron, copper, stainless steel)
Batteries >2 kg	71%	29%	Processed down to commodities for reuse or further processing (lead, acid, plastic, sulfur)

7. Product Distributed and Collected and Recovery Rate

Reference: Recycling Regulation – Part 2, section 8(2)

(e) the total amount of the producer's product distributed and collected and, if applicable, the producer's recovery rate;

(e.1) effective for a report required on or before July 1, 2013 and for every report required under subsection (1) after that date, the total amount of the producer's product recovered in each regional district;

7.1 Program Product Distributed into BC (by weight)

- ***Total program product distributed into BC during 2016 was 1,027 metric tonnes (mt)***

7.2 Program Product Collection Volumes (by weight):

- ***Program product equipment 750 mt***
- ***>2 kgs Batteries 64 mt***
- ***Consumer Batteries 4 mt***

Total program product collection volumes during 2016 was 818 mt

Equipment Recovered by Regional District

Regional District Name	Equipment Recovered (kilograms)*
Alberni-Clayoquot	439
Bulkley-Nechako	660
Capital	6531
Cariboo	896
Central Coast	25

Central Kootenay	1387
Central Okanagan	5857
Columbia-Shuswap	1657
Comox Valley	1035
Cowichan Valley	1608
East Kootenay	1078
Fraser Valley	6505
Fraser-Fort George	1566
Greater/Metro Vancouver	686,412
Kitimat-Stikine	285
Kootenay Boundary	346
Mount Waddington	3021
Nanaimo	6889
North Okanagan	1278
Okanagan-Similkameen	1906
Peace River	1093
Powell River	862
Skeena-Queen Charlotte	11
Squamish-Lillooet	1670
Stikine Region	6
Strathcona	866
Sunshine Coast	17
Thompson-Nicola	3609
***Data by regional district unavailable**	412,358
Provincial Total	**1,149,879 kgs**

Other collection facilities do not have the data available to report equipment recovered by Regional District

7.3 Program Product Recovery Rate:

- *Overall program product recovery rate for 2016 was 79.59%; this is based on the weight of units collected and the weight of units distributed. It is important to note that TELUS primarily distributes rental equipment and products that last for a number of years supported by network equipment that lasts for decades. As a result the ratio on an annual basis of recovered products compared to what was distributed into the market may seem small. However once you consider that the average lifecycle of our products is greater than 5 years a relative recovery rate makes more sense. This should be further rationalized against an expanding install base.*

- *TELUS' Customer Premise Equipment (Rental) Return Improvement Implementation Plan Development & Project commenced where TELUS provided return kits to our customers in an effort to increase the recovery of rental set top boxes, modems, receivers, and remotes.*

7.4 Reuse Rate:

- *TELUS' FFH reuse rate on the products collected in 2016 was 73% as a result of TELUS' disposition process.*
- *TELUS will reuse most consumer products up to three times during its lifecycle. This demonstrates the results of our focus on the Pollution Prevention hierarchy.*

8. Summary of Deposits, Refunds, Revenues and Expenditures

Reference: Recycling Regulation – Part 2, Section 8(2)

(f) independently audited financial statements detailing

(i) all deposits received and refunds paid by the producers covered by the approved plan, and

(ii) revenues and expenditures for any fees associated with the approved plan that are charged separately and identified on the consumer receipt of sale;

TELUS funds the TELUS BC Electronics Stewardship Plan. No customers are charged an environment handling fee.

9. Plan Performance

Reference: Recycling Regulation – Part 2, section 8(2)

(g) a comparison of the approved plan's performance for the year with the performance requirements and targets in this regulation and the approved plan

Plan Target	2016 Results	Strategies for Improvement
1. Target of 75% recovery was committed for 2016	*Overall recovery rate was 79.59%*	*Customer Premise Equipment (Rental) Return Improvement Plan Development*

Appendices / Additional Information and Third Party Assurance

- ***Third Party Opinion Statement for Non-Financial Information obtained.***

Reference: Recycling Regulation – Part 2, section 8(2)
Including section 8(2)(h), any other information specified by the director

TELUS Corporation ISO 14001:2004 Certificate

SGS

Certificate CA15/640105

The management system of

TELUS Corporation

3777 Kingsway
Burnaby, British Columbia, V5H 3Z7, Canada

has been assessed and certified as meeting the requirements of

ISO 14001:2004

For the following activities

Provision of Telecommunication Services.

This certificate is valid from 20 July 2015 until 20 July 2018
and remains valid subject to satisfactory surveillance audits.
Re certification audit due before 25 June 2018.
Issue 1. Certified since 20 July 2015.

Authorised by

SGS United Kingdom Ltd Systems & Services Certification
Rossmore Business Park Ellesmere Port Cheshire CH65 3EN UK
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Page 1 of 1

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