

TELUS Communications Inc.

Annual Report to the Director

2021 Calendar Year

Reporting period January 1 – December 31, 2021

Submitted to: BC Ministry of Environment
Director, Extended Producer Responsibility Programs
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TELUS Communications Inc. 2021 Report to Director, Waste Management

1. Executive Summary

Products within plan	<p><i>Telecommunication equipment:</i></p> <ul style="list-style-type: none"> ○ <i>Cordless phones and corded desktop, VOIP phones and analog terminal adapters;</i> ○ <i>Public Access Equipment;</i> ○ <i>Obsolete network infrastructure equipment (switches, servers), External customer networks, Servers, Optical network termination equipment, Internet equipment (routers, modems), Network cards;</i> ○ <i>Video and teleconferencing equipment;</i> ○ <i>TV equipment (PVRs, receivers, remote controls), Satellite TV equipment;</i> ○ <i>Global Positioning Systems (GPS);</i> ○ <i>Home Security electronic equipment</i> ○ <i>Batteries; and</i> ○ <i>Cables/accessories.</i>
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Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(a)	<u>Public Education Materials and Strategies</u>	<p>a description of educational materials and educational strategies the producer uses for the purposes of this Part</p> <ul style="list-style-type: none"> - <i>Public information posted on telus.com website providing instructions on how to return equipment to TELUS at no charge.</i> - <i>To provide information to our customers TELUS client care agents are made aware of return process by way of online system, internal communication, bulletins.</i> - <i>TELUS Technicians are made aware of return process by way of inter-company communication, bulletins.</i> - <i>Customer Mail Back instructions including a prepaid waybill.</i>
Part 2, section 8(2)(b)	<u>Collection System and Facilities</u>	<p><i>the location of its collection facilities, and any changes in the number and location of collection facilities from the previous report;</i></p> <p><i>Sixteen collection facility locations:</i></p> <ul style="list-style-type: none"> - <i>Communication Test Design Inc. (CTDI), Delta BC</i> - <i>Archway, Richmond BC</i> - <i>Archway, Mississauga ON</i> - <i>eCycle Solutions, Chilliwack BC</i> - <i>Quantum, Edmonton AB</i> - <i>Metalex Products Ltd, Richmond BC</i> - <i>Sumas Environmental Services, Burnaby BC</i> - <i>Canadian Energy, Burnaby BC</i> - <i>Call2Recycle, Vancouver BC</i> - <i>WiMacTel Canada Inc., Calgary AB</i> - <i>Fleet Complete, Mississauga ON</i> - <i>Great Western Metals, BC</i> - <i>Hub Power LTD, BC</i> <p><i>and newly included facilities</i></p> <ul style="list-style-type: none"> - <i>Fleet Complete - Holman, Mississauga ON</i> - <i>ABC Recycling, Burnaby BC</i> - <i>Communication Test Design Inc. (CTDI), Mississauga ON</i> <p><i>Below facilities were not used in 2021:</i></p> <ul style="list-style-type: none"> - <i>Battery Doctor, Kelowna, BC</i>

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Recycling Regulation Reference	Topic	Summary (5-bullet maximum)
Part 2, section 8(2)(c)	Product Environmental Impact Reduction, Reusability and Recyclability	<p>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;</p> <p><i>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.</i></p>
Part 2, section 8(2)(d)	Pollution Prevention Hierarchy and Product / Component Management	<p>a description of how the recovered product was managed in accordance with the pollution prevention hierarchy</p> <p><i>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</i></p>
Part 2, section 8(2)(e)	Product Sold and Collected and Recovery Rate	<p>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.</p> <p><i>Total Program Product Collection Volumes in 2021 is 722.729 metric tonnes Total Program Product Distributed into BC in 2021 is 1,048.728 metric tonnes Total Program Product Recovery Rate in 2021 is 68.91% See section 7 for details</i></p>
Part 2, section 8(2)(e.1)		<p>[See Section 7 for breakdown per regional district] <i>See Section 7</i></p>
Part 2, section 8(2)(f)	Summary of Deposits, Refunds, Revenues and Expenses	<p>[Provide report reference to the independently audited financial statements] <i>Not applicable as TELUS fully funds program.</i></p>

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. <i>2021 Target of 82.5% recovery</i>	<i>68.91% overall recovery</i>	<i>TELUS continues to look at process improvements to increase our returns as well as investigating opportunities for reusing products.</i>

2. Program Outline

Overview

TELUS Communications Inc. (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 18 years and was added to its World Index as of 2016, one of only nine telecommunications companies globally to be recognized with this distinction. Notably, we are one of only six Canadian companies to be named to the World Index across 24 sectors.

Environmental compliance

TELUS believes that an effective environmental management system provides the foundation for our environmental sustainability initiatives. In 2021 TELUS completed the required external audits to maintain our ISO 14001 certification. The globally recognized ISO 14001 standard has recently been updated (ISO14001:2015) and we worked to adapt our current system to the new version through 2021. 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*
- *Home Security Equipment*
- *Batteries associated with these electronics*

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 is a member of the Recycling Council of BC and participates in the BC Recycling Hotline service.*
5. *TELUS Technician Awareness – our technicians are informed about the program and TELUS' commitments to our customers with respect to equipment being returned.*
6. *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.*
7. *TELUS' 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.*
8. *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.*
9. *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 2021 include:

- *TELUS' Waste Reduction Working Group is 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*

These information-gathering exercises helped us identify factors that are influencing our diversion rates. Over the course of 2021 we continued on scouting a path to 90 per cent diversion, while implementing practical improvements in our operations.

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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;

Sixteen 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.

Sixteen collection facility locations:

- *Communication Test Design Inc. (CTDI), Delta BC*
- *Archway, Richmond BC*
- *Archway, Mississauga ON*
- *eCycle Solutions, Chilliwack BC*
- *Quantum, Edmonton AB*
- *Metalex Products Ltd, Richmond BC*
- *Sumas Environmental Services, Burnaby BC*
- *Canadian Energy, Burnaby BC*
- *Call2Recycle, Vancouver BC*
- *WiMacTel Canada Inc., Calgary AB*
- *Fleet Complete, Mississauga ON*
- *Great Western Metals, BC*
- *Hub Power LTD, BC*

and newly included facilities

- *Fleet Complete - Holman, Mississauga ON*
- *ABC Recycling, Burnaby BC*
- *Communication Test Design Inc. (CTDI), Mississauga ON*

Below facilities were not used in 2021:

- *Battery Doctor, Kelowna, 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

We are dedicated to providing the highest quality services and products to our customers and, therefore, work to consider the impacts of our products' journey throughout our entire supply chain. This includes raw materials sourcing to production, storage, delivery and everything in between. Our goal is to minimize environmental harm from factors such as energy usage, water consumption and waste production while having a positive impact on the people and communities in and around our operations.

2021 highlights

*More than 62,000 device returns through our Bring-It-Back[®]™ program
In partnership with our provincial electricity providers, recycled or repurposed 74% of our service poles
15% increase in the volume of refurbished devices through the expansion of our Certified Pre-Owned Program*

Governance and oversight

Our Supply Chain team plays a vital role in carrying out our strategic initiatives, which involves working with suppliers to procure the right products and to deploy them in a safe and cost-effective manner. Our supply chain strategy aims to be inclusive, sustainable, and one that makes a positive difference for our business, customers and communities. We are committed to applying policies and practices that reflect this vision and to collaborate with our stakeholders to reach our goals.

Our Supplier Code of Conduct (the Supplier Code) outlines our expectations for suppliers to demonstrate a strong commitment to ethical, labour, health and safety, environmental principles and compliance practices that align with ours. Consistent with the Code of Ethics and Conduct that applies to our employees and contractors, the Supplier Code is based upon generally accepted standards of ethical business conduct. We expect our suppliers to comply with this Supplier Code, embedded in all supplier contracts, and all applicable laws and regulations wherever they operate. We have also integrated our company-wide Sustainable Paper and Packaging Policy into the Supplier Code.

Supply chain continuity

Following a year of tremendous changes, our global supply chain saw continuous constraints and impacts from the COVID-19 pandemic. The demand for electronics, computer servers and other technical products dramatically outstripped supply in an already depleted global supply chain. We identified challenges early on and devised a number of strategies to mitigate the impacts on our business and customers.

In 2021, we built upon and created new relationships with supplier partners, vendor partners, and others to limit these impacts. We also increased our focus on using refurbished materials, which helped relieve supply chain challenges, while also saving costs and reducing our environmental impact. Through our dedication to providing the best service to our customers, we were able to secure the products we needed to build our networks and support our communities with the capabilities they needed to work, learn and stay connected while remaining at home.

Monitoring our suppliers

We continued investing in our multi-year transformation project this year to evolve how we manage our key supplier relationships. The aim of the project is to revitalize our existing Supplier Relationship Management Program by developing a systematic approach to aid in how we manage the key milestones within the supplier lifecycle and to enhance strategic partnerships.

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Large Suppliers

In accordance with our supplier due diligence program, we monitor suppliers that surpass a spending threshold with an additional level of scrutiny. There is a focus on financial health, adherence to a sustainability questionnaire, insurance compliance, health and safety auditing, and sanction vetting. Following this screening, suppliers who are rated as high risk are notified and a corrective action plan is developed between TELUS and the supplier to move towards compliance.

Critical Suppliers

We define critical suppliers as those having a high impact on customer experience or network reliability, as well as other parameters. In addition, non-critical suppliers may become defined as critical if they experience repeated outages and become a risk for our business continuity performance.

Our Supply Chain team works to establish a culture of continuous improvement with these suppliers through regular meetings on reliability and performance, governance and technological risk. We screen and monitor critical suppliers through our performance management framework called Sentinel as well as maintain a supplier enabled innovation program. This framework has two parts: a dashboard that tracks metrics on performance; and a stakeholder management component with lagging metrics used to create an improvement plan for suppliers.

Digitizing our supply chain

In 2021, we began to digitize our supply chain through leveraging technology and streamlining processes to enhance our ability to be proactive and reduce supply chain risk. With our enhanced digital procurement strategy, we have incorporated big data tools and improved the sourcing process.

Integrating sustainability into our supply chain

We are committed to integrating sustainability considerations throughout our supply chain management practices. In 2021, we implemented a refined scoring weight requirement for all sourcing events to include a prioritized set of environmental and social responsibility considerations, which has been rolled out to all procurement stakeholders.

In addition to including new sustainability parameters when selecting suppliers, we continue to evaluate our incumbent suppliers, assessing their performance on upholding their role in supporting our environmental goals. In 2021, we collaborated with key suppliers to assess the environmental impact of the goods and services we purchase, to further align their practices with our goal to reduce our Scope 3 GHG emissions target.

Fleet decarbonization

As we work towards net-carbon neutrality, we have developed a roadmap to decarbonize our leased fleet operations with the goal of more effective and sustainable vehicles. We expanded our electric vehicle fleet in early 2022 and in the coming years, we plan to continue to increase electric vehicle deployment.

We also remain focused on improving our policies and guidelines to discourage unnecessary engine idling. Furthermore, a proactive maintenance approach was implemented in 2021 to extend preventative maintenance intervals on our light-duty fleets, which will significantly reduce the number of oil changes required. We are also leveraging technology that gives us the ability to remotely diagnose engine codes as a way to resolve mechanical issues prior to extensive repairs.

End-of-life management

A key focus for our Supply Operations team is the management of end-of-life products and devices that are returned or recovered from our customers. New product innovations such as Certified Pre-Owned, Take-home-trade-later, and online Bring-It-Back[®]™ and Trade-in, have expanded our ability to accept more used devices and create more choice for Canadians when it is time to make their next purchase. Highlights include:

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- More than 62,000 device returns
- Over 140,000 used devices traded in
- A 15 per cent increase in our refurbishment volumes
- Expansion of our existing refurbishment program to include Home Security equipment.

Supplier diversity

Our supplier diversity program takes proactive steps to provide equal access to suppliers that reflect the diversity of where we live, work and serve. Our goal is to encourage positive social change through buying behaviour with suppliers that are 51 per cent or more owned, controlled and operated by an individual that's considered diverse based on their ethnicity, sexuality, gender, veteran status and/or if able bodied.

Since 2019, we have had a target to increase our direct diverse supplier spend by three to five per cent over the previous year. In 2022, our target is to increase the direct and tier two spend by five per cent, the Aboriginal supplier spend by 10 per cent and increase the number of diverse suppliers working with TELUS.

Spend with diverse tier one suppliers^{1,2}

	2021	2020	2019
Spend (\$ millions)	\$101	\$114	\$135
% change in spend from previous year	-11	-16	-18

¹ We define tier one suppliers as those that we directly conduct business with, including contracted manufacturing facilities or production partners. We define diverse suppliers as suppliers that are 51 per cent or more owned, controlled and operated by an individual that's considered diverse based on their ethnicity, sexuality, gender, veteran status and/or if able bodied.

² Data does not include TELUS Agriculture.

The diverse tier one supplier spend declined following a fair process review and bidding process, which was indicative of a very competitive market for talent that altered the mix of suppliers able to meet our requirements. We continue to support the engagement of our diverse suppliers, providing feedback and opportunities where suitable to increase our partnerships and future spend with diverse suppliers.

We are corporate partners with the Canadian Aboriginal and Minority Supplier Council, Women Business Enterprises Canada, and Canadian Gay and Lesbian Chamber of Commerce and the Canadian Council for Aboriginal Business as part of our focus on supplier diversity.

In 2022, we will further implement our action plan to develop and promote our supplier diversity program, increase our spending with Aboriginal businesses and work closely with the supplier diversity organizations in Canada.

Conflict minerals

The Securities and Exchange Commission (SEC) maintains reporting requirements to disclose the use of designated minerals and metals mined in the Democratic Republic of Congo and adjacent countries. Cassiterite (a source of tin), wolframite (a source of tungsten), columbite-tantalite (or coltan, a source of tantalum) and gold are often referred to collectively as conflict minerals. Such minerals may be used in electronic and communications equipment that we use or sell.

As a signatory of the UNGC, we are committed to preventing human rights abuses that could result from our operations. These SEC reporting requirements for conflict minerals, mandated by Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, came into effect for our 2013 annual reporting cycle. Through the establishment of an internal conflict minerals working group, we have performed our due diligence and have met the reporting requirements each year.

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 first tested under approved test guidelines by a 3rd party vendor. Units that pass the testing 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(s).

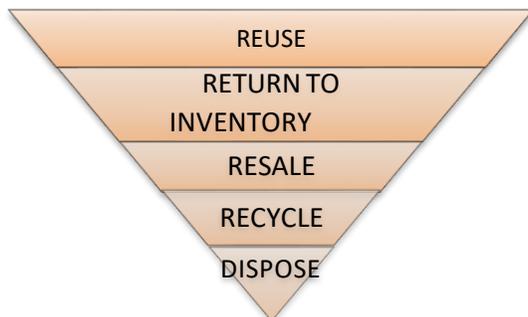
Program Products collected are reported by End of Fate by level on the Pollution Prevention Hierarchy:

- *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 2021 FFH reuse rate was 30 percent and 1 percent reuse rate of our accessories.*
- *Recycle: These are products that are processed into an End of fate commodity (e.g. Ferrous Steel, Plastics, Aluminum, Copper, Glass, Lead, etc.). In 2021 over 722.729 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. In 2021 non-hazardous waste was sent to the landfill by our electronics recyclers due to not being a recyclable or reusable commodity within the product (examples are non-recyclable packaging materials, rubber feet).

Disposition Hierarchy



Acceptable Product End of Fate

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

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Estimated Product End of Fate Data for the year ended December 31, 2021

Product Type	Reuse (%)	Recycle (%)	Recovery (%)	Residual (%)	Unknown (%)
TELUS TV Equipment	30%	48%	0	22%	0
TELUS TV Accessories	1%	94%	0	5%	0
Network Equipment	27%	61%	0	12%	0
Telsets	0%	100%	0	0%	0
GPS	0%	100%	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
TV equipment and accessories		100%	Processed for material recovery (metals, precious metals, plastic)
Telsets		100%	Processed for material recovery (metals, precious metals, plastic)
GPS		100%	Processed for material recovery (metals, precious metals, plastic)
Network Equipment		100%	Processed for material recovery (metals, precious metals, plastic)
Batteries <2 kg	100%	0%	Processed for material recovery
Batteries >2 kg	100%	0%	Processed down to commodities for reuse or further processing (lead, acid, plastic, sulfur)

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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 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 2021 was 1,048.72 metric tonnes (mt)
The amount of circuit cards (network) distributed was based on self-reporting as 1-1 as we do not have the data indicating the distribution of circuit cards. However, we do know that for each card removed from our switch a new card is installed in its place.*

7.2 Program Product Collection Volumes (by weight):

- *Program product equipment 599.306 mt*
 - *>2 kg Batteries 119.720 mt*
 - *Consumer Batteries 3.703 mt*
- Total program product collection volumes during 2021 was 722,729 mt*

Equipment Recovered by Regional District

Regional District	Equipment Recovered (kgs)
Alberni-Clayoquot	86
Bulkley-Nechako	1,931
Capital	8,871
Cariboo	3,240
Central Kootenay	3,358
Central Okanagan	13,206
Columbia-Shuswap	3,203
Comox Valley	965
Cowichan Valley	1,262
East Kootenay	2,752
Fraser Valley	6,556
Fraser-Fort George	5,667
Greater/Metro Vancouver	324,076
Kitimat-Stikine	1,350
Kootenay Boundary	1,522
Mount Waddington	540
Nanaimo	9,961
North Okanagan	3,783
Okanagan-Similkameen	2,400
Peace River	2,299
Powell River	653
Skeena-Queen Charlotte	1

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Squamish-Lillooet	1,518
Strathcona	450
Sunshine Coast	1,003
Thompson-Nicola	8,496
Provincial Total	409,148

7.3 Program Product Recovery Rate:

- Overall program product recovery rate for 2021 was 68.91% ; this is based on the weight of units collected and the weight of units distributed.
- 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 2021 was 30% 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.

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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	2021 Results	Strategies for Improvement
1. <i>Target of 82.5% recovery was committed for 2021</i>	<i>Overall recovery rate was 68.91%</i>	<i>Process improvement projects are in progress</i>

Recovery rate is higher than products distributed due to excess inventory recycled/resold as well as decommissioning projects.

10. Third Party Assurance

Appendices / Additional Information and Third Party Assurance

Appendix A - *Third Party Assurance Statement for Non-Financial Information*

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

Including section 8(2)(h), any other information specified by the director

Insert PWC assurance here



Independent practitioner’s reasonable assurance report on select performance indicators as presented in TELUS’s Annual Report to the Director, of the British Columbia Ministry of Environment & Climate Change Strategy

To the management of TELUS Communications, Inc. (TELUS)

We have undertaken a reasonable assurance engagement on select performance indicators as presented in TELUS’s Annual Report to the Director (the subject matter) of the British Columbia Ministry of Environment & Climate Change Strategy (the Ministry) detailed in Appendix A, as part of TELUS’ commitments under the Extended Producer Responsibility (EPR) program as hosted on the TELUS’ website¹ for the year ended December 31, 2021.

Management’s responsibility

Management is responsible for the preparation of the subject matter in accordance with sections 8(2)(b), 8(2)(d), 8(2)(e) and 8(2)(g) of the British Columbia Recycling Regulation 449/2004 (the criteria) detailed in Appendix A. Management is also responsible for such internal control as management determines necessary to enable the preparation of the subject matter that is free from material misstatement, whether due to fraud or error.

Our responsibility

Our responsibility is to express a reasonable assurance opinion on the subject matter based on the evidence we have obtained. We conducted our reasonable assurance engagement in accordance with Canadian Standard on Assurance Engagements (CSAE) 3000, *Attestation Engagements Other than Audits or Reviews of Historical Financial Information*. This standard requires that we plan and perform this engagement to obtain reasonable assurance about whether the subject matter is free from material misstatement.

Reasonable assurance is a high level of assurance, but is not a guarantee that an engagement conducted in accordance with this standard will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The nature, timing and extent of procedures selected depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the preparation of the subject matter in accordance with the applicable criteria.

Our reasonable assurance procedures included, but were not limited to the following:

- making enquiries of management and senior executives to obtain an understanding of the overall governance and internal control environment and risk management processes relevant to the management and reporting of TELUS’s Annual Report to the Director;

¹ The maintenance and integrity of the TELUS website (<https://www.telus.com/en/about/policies-and-disclosures/bc-stewardship-plans>) is the responsibility of TELUS; the work carried out by PricewaterhouseCoopers LLP does not involve consideration of these matters and, accordingly, PricewaterhouseCoopers LLP accepts no responsibility for any changes that may have occurred to the reported information or criteria since they were posted on the website.



- analytical reviews and trend analysis of reported data;
- testing the processes, documents and underlying data on a sample basis;
- recalculating quantitative data on a sample basis as it pertains to the subject matter information; and
- evaluating the presentation and disclosure of the subject matter information in the Annual Report to the Director.

We believe the evidence we obtained is sufficient and appropriate to provide a basis for our opinion.

Our independence and quality control

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements*, and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Opinion

In our opinion, the subject matter information as presented in TELUS's Annual Report to the Director for the year ended December 31, 2021 has been prepared, in all material respects, in accordance with the criteria.

Purpose of statement and restriction on distribution and use of our report

The subject matter has been prepared in accordance with the applicable criteria to report to the Ministry. As a result, the subject matter may not be suitable for another purpose. Our report is intended solely for the use of TELUS and the Ministry. We neither assume nor accept any responsibility or liability to any other third party in respect of this report.

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Vancouver, BC
June 30, 2022



Appendix A – Subject matter and applicable criteria

1. Section 8(2)(b) of the Recycling Regulation - the location of collection facilities, and any changes in the number and location of collection facilities from the previous report

TELUS' reported result:

The number of collection facility locations is 16 (2020: 14).

Reference: Pages 3, 6 and 7 of TELUS's 2021 Annual Report to the Director

Basis of preparation:

- “Collection Facilities” are centres that were owned by TELUS, had a signed contract with TELUS, or non-contracted with selected TELUS vendors, for the collection of Program Products as of December 31st of the reporting year. 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. Additionally, TELUS has a mail-back program whereby residential customers can return items via Canada Post outlets and business customers are provided with a courier pickup service.
- “Collection Facilities” are one of the following types of centres:
 - Reverse Logistics/Triage Centres – e.g., CTDI and Archway;
 - Processors - e.g., GEEP, Metalex, Edmonds Recycling;
 - Spare Central Stock – e.g., CTDI warehouse location for spare network equipment; or
 - Redeployment Centres/Forward logistics - e.g., TELUS, CTDI and Archway warehouse locations for used equipment brought back into inventory.
- “Collection Facilities” are not Canada Post, courier service providers (e.g., FedEx), technicians or Tier 2 locations (“Tier 2 locations” are TELUS locations where the technicians drop off material for return. These then are forwarded to any of the collection facilities).



2. Section 8 (2) (d) of the Recycling Regulation - the description of how the recovered product was managed in accordance with the pollution prevention hierarchy

TELUS' reported result:
Acceptable Product End of Fate

Product Type	Reuse	Recycle	Recovery	Residual
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, 2021

Product Type	Reuse (%)	Recycle (%)	Recovery (%)	Residual (%)	Unknown (%)
TELUS TV Equipment	30%	48%	0	22%	0
TELUS TV Accessories	1%	94%	0	5%	0
Network Equipment	27%	61%	0	12%	0
Telsets	0%	100%	0	0%	0
GPS	0%	100%	0	0%	0
Batteries <2 kg	0	100%	0	0%	0
Batteries >2 kg	0	100%	0	0%	0



2. Section 8 (2) (d) of the Recycling Regulation - the description of how the recovered product was managed in accordance with the pollution prevention hierarchy

Processing Pathways

Product Type	Estimated transfer to direct processor in British Columbia (%)	Estimated transfer to direct processor or multi-step processor in North America (%)	End of Fate Description
TELUS TV Equipment and accessories	0	100	Processed for material recovery (metals, precious metals, plastics)
Telsets	0	100	Processed for material recovery (metals, precious metals, plastics)
GPS	0	100	Processed for material recovery (metals, precious metals, plastics)
Network Equipment	0	100	Processed for material recovery (metals, precious metals, plastics)
Batteries <2 kg	100	0	Processed for material recovery
Batteries >2 kg	100	0	Processed down to commodities for reuse or further processing (lead, acid, plastic, sulfur)

Reference: pages 11, and 12 of TELUS's 2021 Annual Report to the Director

Basis of preparation:

- "Product type" is groups of products included in the program as listed in the currently approved product stewardship plan.
- "Reuse" is any Program Product which has been either reused by TELUS or sold for the purpose of reuse.
- "Recycle" refers to the process of treating or processing a Program Product into an End of Fate commodity (e.g. Ferrous Steel, Plastics, Aluminium, Copper, Glass, Lead).



2. Section 8 (2) (d) of the Recycling Regulation - the description of how the recovered product was managed in accordance with the pollution prevention hierarchy

- “Recovery” is the process of generating energy in the form of electricity and/or heat from the incineration of waste.
- “Residual” refers to Program Products which have been sent to landfill or hazardous waste that is not reusable.
- “End of fate” is defined as the point where the product, component, and/or material is handled as a recognized commodity, is destroyed (e.g., through energy recovery), or is disposed of as waste.
- “Estimated Product End of Fate Data” is an estimate of the end fate of the type of product based on information provided by processors.
- Direct processors are those where the Program Product is processed on a single site.
- Multi-step processors are those where the Program Product is processed over more than one site.

Method of reporting:

- Program Products collected are reported by end of fate both by product type and by process on the Pollution Prevention Hierarchy:
 - Reuse: Reused products are reported by weight reused or sold for reuse.
 - Recycle: Recycled products are reported by weight.
 - Recovery: N/A - No Program Products are recovered.
 - Residual: N/A – all Program Products collected are expected to be 100% recyclable. Non-program products that may be included in shipments are not recorded or reported by the program but efforts are made to dispose of them in accordance with the pollution prevention hierarchy.



3. Section 8 (2) (e) of the Recycling Regulation - the description of the total amounts of the producer's product sold and collected and, if applicable, the producers' recovery rate

TELUS' reported result:

Total amount of producer's product sold is 1,048.728 metric tonnes

Total amount of producer's product collected is estimated as 722.729 metric tonnes

Reference: pages 4 and 12 of TELUS's 2021 Annual Report to the Director

The recovery rate is reported under criteria 4 below.

Basis of preparation:

- "Product Sold" is the amount of all Program Products distributed into BC by TELUS.
- "Product Collected" is the amount of all Program Products collected from sources known to be located within the province of BC that occurred through the Collection Facilities.
- "Program Products" are all products included in the program as listed in the currently approved product stewardship plan. These include:
 - Program equipment utilized externally by customers
 - TELUS TV equipment (Set-top boxes, PVRs, Receivers, Remote Controls)
 - TELUS Internet Equipment (Routers, Modems, Gateways)
 - Satellite TV equipment
 - Cordless Phones (wireline)
 - Corded Phones
 - VOIP phones
 - VOIP Analog Terminal Adapter
 - GPS equipment
 - Optical Network Terminal Battery (GPON battery)
 - Video and telephone conferencing equipment
 - Servers
 - Program equipment utilized by TELUS
 - Cordless and corded desktop phones
 - VOIP Over IP (VOIP) phones
 - Global Positioning Systems (GPS) equipment
 - Obsolete network equipment (switches, servers, mainframes, circuit cards, etc.)
 - Public Access Equipment (payphones, smartcard readers)



3. Section 8 (2) (e) of the Recycling Regulation - the description of the total amounts of the producer's product sold and collected and, if applicable, the producers' recovery rate

- External Customer Network Infrastructure Equipment – but located on TELUS premises (servers, mainframes, tapes etc.)
- Video and telephone conferencing equipment
- Optical Network Termination Equipment located on customers' premises
- Batteries associated with these electronics
- Products not included in the program are mobile devices and their associated accessories.

4. Section 8 (2) (g) of the Recycling Regulation - the performance for the year in relation to targets in the approved stewardship plan under Sections 8(2)(b), (d), and (e)

TELUS' reported result:
68.91% recovery rate for the year ended December 31, 2021 compared to a target of 82.5%
Reference: pages 4, 13 and 14 of TELUS's 2021 Annual Report to the Director

Basis of preparation:

- Recovery rate is calculated as:
 - $\text{Total weight of units collected} / \text{Total weight of units distributed (sold)}$

TELUS Communications Inc. 2021 Report to Director, Waste Management

TELUS Corporation ISO 14001:2015 Certificate

Certificate CA15/640105.00

The management system of

TELUS Corporation

3777 Kingsway
Burnaby, BC V5H 3Z7, Canada

has been assessed and certified as meeting the requirements of

ISO 14001:2015

For the following activities:

Provision of Telecommunication Services

This certificate is valid from 20 July 2018 until 19 July 2021
and remains valid subject to satisfactory surveillance audits.

Re certification audit due before 23 April 2021.

Issue 2. Certified since 20 July 2015.

Authorized by



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