

Electronic Product Stewardship Plan (EPSP)
Proposal in Newfoundland and Labrador
For Bell Aliant Set-Top-Boxes (STBs)

Table of Contents

1. Purpose	3
1.1 Background	
2. Program Overview	
2.1 Return to Bell Aliant Retail Store	3
2.2 Mail-Back Process with Canada Post	3
2.3 Defective STBs and Customer Repair or Exchanges	3
2.4 Service Terminations	
2.5 Penalty for Unreturned STBs	4
3. Returned STB Reverse Logistics	4
4. Repair and Refurbishment for Reuse	4
5. Recycling of Non-Reusable STBs	4
6. Fees	
7. Customer Education, Communication, and Consultation	5
8. Performance Measures & Targets	
9. Reporting	
10. Audits	
11. Improving Product Design and Reducing Resource Use	
12. Maximizing Local Economic Benefits	
13. Cooperation with Other Stewardship Programs	
14. Contact Information for the Program	
15. Conclusion	
Appendix A	
Appendix B	
Appendix C	
Appendix D	
Appendix E	
Appendix F	
Appendix G	
Appendix H	
Appendix I	18

1. Purpose

Bell Aliant operates an Electronic Product Stewardship Plan (EPSP) for Set-Top-Boxes (STBs) and associated accessories in the province of Newfoundland & Labrador. The EPSP is guided by our commitment to sustainability, industry-wide best practices, and our goals to extend the lifecycle of our STBs and divert e-waste from landfills.

The EPSP was developed to ensure it meets the provincial requirements as outlined in *Newfoundland and Labrador Regulation 85/12* and was initially approved for implementation by the Newfoundland and Labrador Multi Materials Stewardship Board (MMSB) on May 29, 2013.

This document is an updated version of the original EPSP that was approved in 2013 and is intended to describe the current operation of the EPSP and we propose it covers the period from May 2019 to May 2024.

1.1 Background

Bell Aliant provides TV service to more than 64,000 customers in Newfoundland & Labrador. A typical TV service installation requires a STB for each TV, and if the customer wishes to have Personal Video Recorder (PVR) service, then one PVR STB (also known as an STB in this document) is installed per customer location. Bell Aliant maintains ownership of all STBs, as we operate a rental only model and do not sell STBs to customers. As new TV service offerings are developed, the software and firmware on STBs can be remotely uploaded over our telecommunications network to extend the useful life of STBs.

2. Program Overview

Bell Aliant's EPSP for STBs and accessories is based on a closed-loop system in which these devices are only rented to customers who purchase our TV service, and we maintain 100% ownership of the STBs throughout their entire life cycle (Appendix A).

2.1 Return to Bell Aliant Retail Store

Customers who are seeking to return STBs due to TV service termination can drop off their STBs at one of over 30 participating Bell Aliant retail locations across NL (Appendix B). Customers can locate the most convenient participating retail location for them using the "Store Locator" on the www.bellaliant.ca (Appendix C & D) or by contacting customer service by instant web chat or by phone. In 2018, 90% of all recovered STBs came from retail stores.

2.2 Mail-Back Process with Canada Post

Through our mail-back process, customers who are seeking to return STBs to us for repair, exchange, or TV service termination are sent an appropriately sized box in which to package the STBs and accessories, along with a pre-paid Canada Post waybill (Appendix E), and return instruction sheet. When the STBs and all accessories are packed in the box and the waybill affixed, the customer then simply takes the package to the nearest Canada Post location at their convenience for return. In 2019, 10% of all recovered STBs came from mail-back.

2.3 Defective STBs and Customer Repair or Exchanges

Should an STB become defective and the STB needs to be replaced, we either (i) send a Bell Aliant technician to go to the customer's premises to replace the STB and return the faulty STB to our service provider for repair, or (ii) the customer is sent a new STB by mail along with a prepaid waybill to return the replaced STB back to Bell Aliant at any Canada Post location.

2.4 Service Terminations

If customers end their TV service with us, they are obligated to return all STBs and accessories to Bell Aliant. Customers will be advised to drop off their STBs to the most convenient Bell Aliant participating retail location or they will be sent a box and pre-paid waybill so they can return these items at any Canada Post location. Returned STBs are refurbished and redeployed wherever possible.

2.5 Penalty for Unreturned STBs

Customers who terminate their TV service with us are informed that there will be a charge of \$300 applied to their account for each STB that is not returned. The addition of this fee typically results in the return of the STBs. In a very small percentage of cases, the customer still does not return the devices and the account is sent to a collection agency.

3. Returned STB Reverse Logistics

All returned STBs and accessories that are returned to Bell Aliant are sent to our logistics partners Regional Storage & Logistics (RSL) and Progistix (Appendix A). The STBs and accessories are sorted and are prepared for either; (i) refurbishment and reuse, (ii) for recycling, or (iii) resale. Bell Aliant's goal is to repair and refurbish as many STBs as possible.

4. Repair and Refurbishment for Reuse

STBs that are deemed refurbishable and can be reused are refurbished by RSL, which follows a process to inspect, test, repair, refurbish, and prepare our STBs for redeployment. This process includes the following:

- · Sorting of units and accessories
- Electronic tests to determine proper operation
- Visual inspection for physical damage
- Wiping of device memory (PVR)
- Cleaning of the unit
- Replacement of damaged/dirty housing if required
- Upgrade to programming if required
- Kitting of refurbished units for redeployment
- Separation of non-repairable units for recycling

STBs that RSL is unable to refurbish are sent to our certified recycler, GEEP.

5. Recycling of Non-Reusable STBs

STBs that are not economically repairable or are models of STBs that are no longer compatible with our network and have been discontinued are sent to our certified recycler, GEEP, located in Barrie, Ontario. There are several environmental aspects incorporated into Bell's contract with GEEP to ensure the responsible recycling of Bell Aliant's STBs and accessories. These include:

- Providing recycling services in an environmentally sound manner with a zero landfill objective
- Abiding by all environmental laws and regulations
- Maintaining several industry leading and externally verified/audited certifications such as ISO 14001, R2, and RQO
- Abiding by <u>Bell's Supplier Code of Conduct</u>
- Allowing on-site Environmental Compliance Reviews and Inspections performed by Bell's Corporate Responsibility & Environment team

Additional information regarding GEEP and further downstream recycling processes are available in Appendix G.

6. Fees

The costs associated with operating Bell Aliant's EPSP for STBs is internalized in our overall service delivery program budget. We do not charge our customers who rent our STBs an Environmental Handling Fee (EHF).

7. Customer Education, Communication, and Consultation

Bell Aliant customers are made aware of Bell Aliant's EPSP and how they can return their STBs through direct communication when they first sign up for TV service or upon termination of their service with retail store representatives, customer service agents, and technicians. If customers have further inquiries, they can (i) find additional information (i.e. such as the STB returns process) on our website at www.bellaliant.ca, (ii) find a retail store location on our website (Appendix C) to visit, or (iii) contact Bell Aliant customer service over the phone at 1-888-214-7896 or through the instant messenger application on our website.

Bell Aliant customers, who are the primary stakeholders of the Bell Aliant EPSP, along with other stakeholders can provide feedback regarding the program on an ongoing basis through the same channels mentioned above.

Bell Aliant also communicates that our EPSP is open to all brand owners' PVRs, receivers, and accessories for all residents of NL (Appendix D).

8. Performance Measures & Targets

Bell Aliant's EPSP for STBs has been very successful in collecting majority of STBs for return. With our rental only model, simple return process, and easily accessible customer service, the program has resulted in historical capture rates of above 80%. The table below summarizes our EPSP's historical performance. We expect to continue to maintain a similar high capture rate of STBs and accessories.

	2014	2015	2016	2017	2018
Total STBs Available for Collection	16,911	32,700	54,211	50,928	33,604
Total STBs Collected	14,358	31,219	49,083	48,148	36,047
Capture Rate	85%	95%	91%	95%	107%

Our capture rate is based on the number of STBs available for collection from our customers as a result of termination of service, known as "deactivations," plus the number of STBs that need to recovered for repair, known as "service." STBs that are in use at customers' homes which are actively providing TV services are not part of the capture rate calculation. The table below details the latest EPSP results.

Based on historical performance of the EPSP, we propose a 90% target capture rate for the period of May 2019 – May 2024.

Almost 100% of collected STBs are recycled or refurbished.

Bell Aliant STB EPSP Results January 1 st , 2018 – December 31 st , 2018				
Customer Deactivations	9,377			
Average STBs Per Household w/ Service	2.2			
Deactivated: STBs Available for Collection	20,629			
Service: STBs Available for Collection	12,975			
Total STBs Available for Collection	33,604			
Total STBs Collected	36,047 (107%)			
Total STBs Refurbished	38,212 (106%)			
Total STBs Recycled	9,799 (27%)			
Total Remote Control Units Collected	7,409			
Total Cable (Kgs) Collected	2,091			

9. Reporting

Bell Aliant will provide an annual report to MMSB within 90 days of each fiscal year.

Bell Aliant does not produce any financial statements related to this EPSP and we do not have the ability to separate out and track expenses for this program. Since the reuse and recycling processes are closely integrated into our normal business operations related to providing TV service to our customers, there is no feasible way to differentiate these expenses. Also, since there are no environmental handling fees (EHFs) are being collected from customers, there is no revenue received that is attributable to the EPSP for reporting purposes.

10. Audits

Since the launch of our TV service in Newfoundland and Labrador, Bell Aliant has voluntarily operated an electronic stewardship program for the collection, reuse, and recycling of PVRs and receivers in the province. Our data indicate that the recovery rates we have been achieving meet and exceed industry norms for other stewardship programs in Canada. In addition, we achieve significant levels of reuse for the collected equipment as a result of choosing high-quality equipment, and our comprehensive refurbishment process. As a result, we believe we have strong evidence that our stewardship program is extremely successful.

Bell Aliant, via its service providers RSL and Progistix, responsibly recycles the component parts and non-repairable PVRs, receivers, and accessories using a certified e-waste recycler, GEEP. Bell Aliant feels confident that the end-of-life materials are being managed/recycled in a safe and environmentally-responsible manner. Bell performs periodic Environmental Risk Evaluations (EREs) on our service providers for the reuse, storage, and recycling of electronic devices. The ERE assures that our service providers' processes are functioning well, and that they comply with our requirements. Among the ERE evaluation criteria, we put a particular emphasis on the following points:

- The existence of an environmental management system (recyclers must be ISO 14001 certified);
- Measures must be in place to guarantee security for the data on recovered devices;
- Compliance with pollution prevention regulations or guidelines;
- Processes that ensure product traceability;
- Compliance with applicable laws, regulations, and conventions; and holding of permits and authorizations related to the environment, health, and safety;
- The type and quality of insurance and guarantees;
- The existence of a health and safety program;
- The existence and compliance with mechanisms to ensure the transportation of dangerous goods is in conformity with legal and regulatory requirements;
- Verification of historical environmental issues such as contaminated sites, inspection results, warnings/fines/prosecution, if any.

Following the ERE, Bell Aliant is able to determine if it will retain the service provider, or to mitigate certain identified risks using specific contractual clauses.

Bell Aliant is solely responsible for the financial accountability of our stewardship program in NL for the collection of PVRs, receivers, and accessories. No fees are collected or proposed to be collected from consumers, with the exception of the \$300 cost-recovery charge per unreturned device, which is refunded once the device has been returned. There are therefore no revenues and expenditures of public fees to report on.

11. Improving Product Design and Reducing Resource Use

Bell Aliant works with its suppliers to understand and minimize environmental impacts. These efforts have resulted in take-back programs, reduced packaging through bulk shipping, a shift to electronic manuals, use of products with fewer harmful materials, and increased energy efficiency.

For the purchase of STBs, Bell Aliant evaluates products using a total-cost-of-procurement methodology, which factors in a broad diversity of attributes over the entire life cycle of a product. This process considers factors such as durability, reparability, energy consumption, and end-of-life management. By better understanding these attributes, smarter and more cost-effective purchasing decisions are being made, which help reduce impacts on the environment.

One factor that has been key to extending product life is the ability to upgrade the software and firmware of the PVR and receiver models being used. This allows new functionality to be downloaded over the network rather than having to replace the devices.

12. Maximizing Local Economic Benefits

Bell Aliant's expanding Fibe TV service, and the resulting stewardship program for PVRs and receivers, provides many local economic benefits including the creation of jobs throughout NL. With over 1,000 Bell Aliant employees in the province, our success is directly attributable to these local resources. From installation and repair technicians to work centre support staff and local customer service agents, numerous staff are employed, directly and indirectly, to support this integrated stewardship program.

13. Cooperation with Other Stewardship Programs

Bell Aliant is committed to working with other stewards and stakeholders to promote the recovery of STBs and accessories from all brand owners in the province and to help ensure clear communication regarding the management of these devices, should they inadvertently be collected by other stewards.

14. Contact Information for the Program

Mac Balacano
Sustainability & Environment Manager
Bell
191 Pioneer Ave, Room G400L
Winnipeg, MB, R3C 3N8
Telephone: 1-204-805-5350
E-mail: mac.balacano@bellmts.ca

15. Conclusion

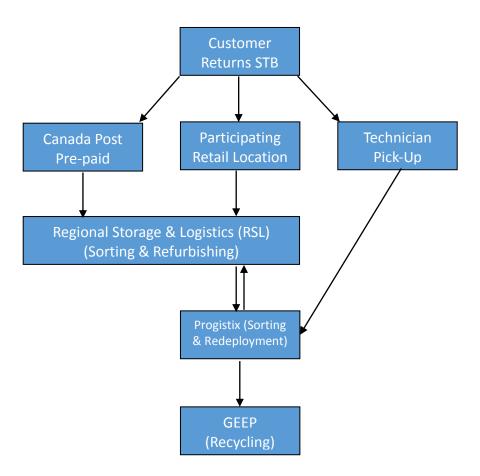
Bell Aliant delivers TV services to over 64,000 customers in Newfoundland & Labrador. To support this service, Bell Aliant has voluntarily operated its EPSP for the collection, refurbishment, reuse, and recycling of STBs and accessories. This program has been very successful, resulting in capture rates over 80%.

By maintaining ownership of STBs and accessories, Bell Aliant is able to effectively manage the use and recovery of this equipment. Our retail store representatives, customer service agents, and technicians ensure that our customers are aware of the need to return STBs and accessories, and help guide our customers through the return process. Our simplified pre-paid mail-back process makes returning STBs and accessories convenient and accessible.

Bell Aliant purchases quality STBs and accessories with a long working life that can be remotely upgraded and easily repaired. This helps to minimize environmental impacts throughout the life cycle of these products. At final end-of-life, STBs and accessories are responsibly recycled by our certified recycler to capture valuable resources and minimize waste going to landfill.

Our stewardship programs have evolved over time to meet new industry best practices and regulatory requirements. We are confident that this EPSP is aligned with MMSB's goals to manage e-waste in an environmentally and socially responsible manner. We look forward to receiving MMSB's approval so that we can continue to operate our STB EPSP in the province of Newfoundland & Labrador.

Appendix A - EPSP Process

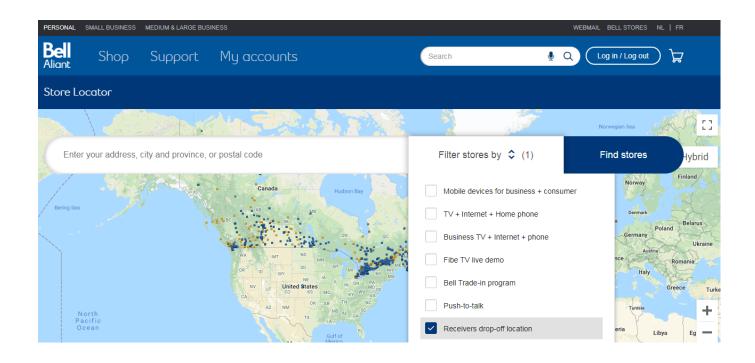


Appendix B - Bell Aliant Drop-Off Sites

Bell Aliant Store Name	ADDRESS	CITY
Caravan Electronics	242 Conception Bay Hwy	Bay Roberts
Custom Computer Centre	23 Church St	Bonavista
Bell Aliant (Channel-Port aux Basques)	49 Main St	Channel-Port aux Basques
Cellular Central	263 Memorial Dr	Clarenville
Bell Aliant (Conception Bay South)	120 Conception Bay Hwy	Conception Bay South
Altronics	74 Broadway	Corner Brook
Bell Aliant (Corner Brook Plaza)	44 Maple Valley Rd	Corner Brook
Bell Aliant (Valley Mall)	1 Mount Bernard Ave	Corner Brook
Wireless World	9 North Main St	Deer Lake
Central Office Equipment	305 Airport Blvd	Gander
Bell Aliant (Gander Mall)	132 Bennett Dr	Gander
Cellular Central	106 Main St	Glovertown
Boot Computers	82 Main St	Grand Bank
Bell Aliant (Exploits Valley Mall)	19 Cromer Ave	Grand Falls-Windsor
Iglutek Computers	348 Hamilton River Rd	Happy Valley-Goose Bay
Labrador Specialty Services	9 Loring Dr	Happy Valley-Goose Bay
Ken-Tech Computer Sales & Repair	500 Vanier Ave	Labrador City
Bell Aliant (Peninsula Mall)	1544 Columbia Dr	Marystown
Micro-Tech Computer Centre	978 Topsail Rd	Mount Pearl
Bell Aliant (Pippy Place)	34 Pippy Place	St. John's
Bell Aliant (Avalon Mall)	48 Kenmount Rd	St. John's
Bell Aliant (Aberdeen Ave)	C-40 Aberdeen Ave	St. John's
Bell Aliant (Sobeys Howley Estates)	10 Elizabeth Ave	St. John's
Bell Aliant (Village Shopping Center)	430 Topsail Rd	St. John's
Bell Aliant (Village Shopping Ctr Kiosk)	430 Topsail Rd	St. John's
Bell Aliant (Avalon Mall - Kiosk)	48 Kenmount Rd	St. John's
NicTech Electronics Ltd Source By CC	64 Main St	Stephenville
Bell Aliant (Stephenville Mall)	42 Queen St	Stephenville

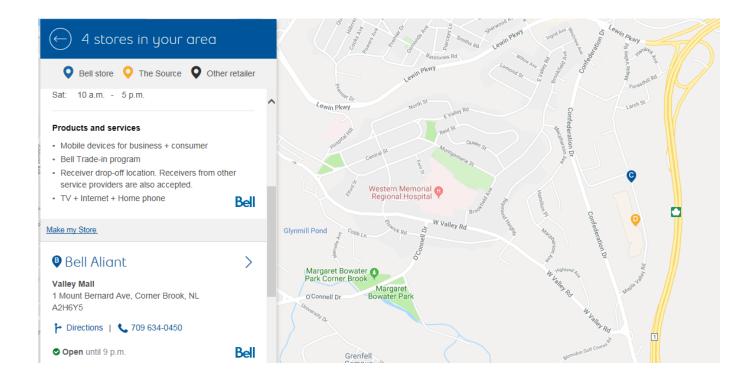
Appendix C

Bell Aliant Store Locator Application on www.bellaliant.ca



Appendix D

Notice to users that STBs from other brand owners are accepted at Bell Aliant stores



Appendix E

Letter Advising Customer of Equipment Return Process and Non-Return Charge





November 30, 2016

IT Test Account 200 Bluewater Road Bedford, NB B4B1G9

Important information regarding your Fibe TV equipment.

Dear IT Test Account,

We are contacting you regarding the return of your Fibe TV equipment. To avoid being charged for the rental equipment associated with this service, you must return it within 30 days or a non-return charge of \$300 per Set-Top Box and \$60 per modem with added to your account.

Please follow these steps to return the equipment to Bell Aliant:

 Please place the TV receiver(s), cables, remote control(s) and modern (if applicable) in suitable packaging of your choice so the equipment can be shipped safely (a box is recommended).

NOTE: Bell Home Hub 3000 modern oustomers please do not include your modern with the above equipment. Bell Aliant will send a separate return kit, with a postage-paid shipping waybill, for the modern return.

2. Affix the enclosed postage-paid shipping waybill to the outside of the package(s).

NOTE: Please do not hand-deliver your equipment to the physical location on the attached waybill as we are not able to process hand delivered returns.

- 3. Take the package/box to your nearest Canada Post outlet.
- 4. Retain the package tracking number for future reference.

If you have any questions please call us at 1866 342-7367.

Thank you in advance for your cooperation.

Sincerely,

Charles-Albert de Magistris

Cholis. Albert.

Vice President

Residential Services

1781095-00

C002238657

Appendix F - Canada Post Pre-Paid Waybill

Peel off label and affix to package

Your Tracking Number is: 4027 9140 4361 8823



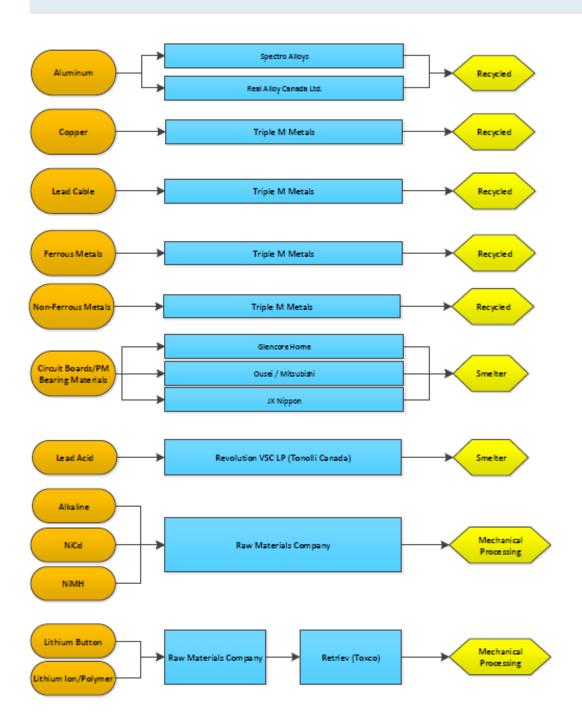
Appendix G - Recycler Downstream Material Flow

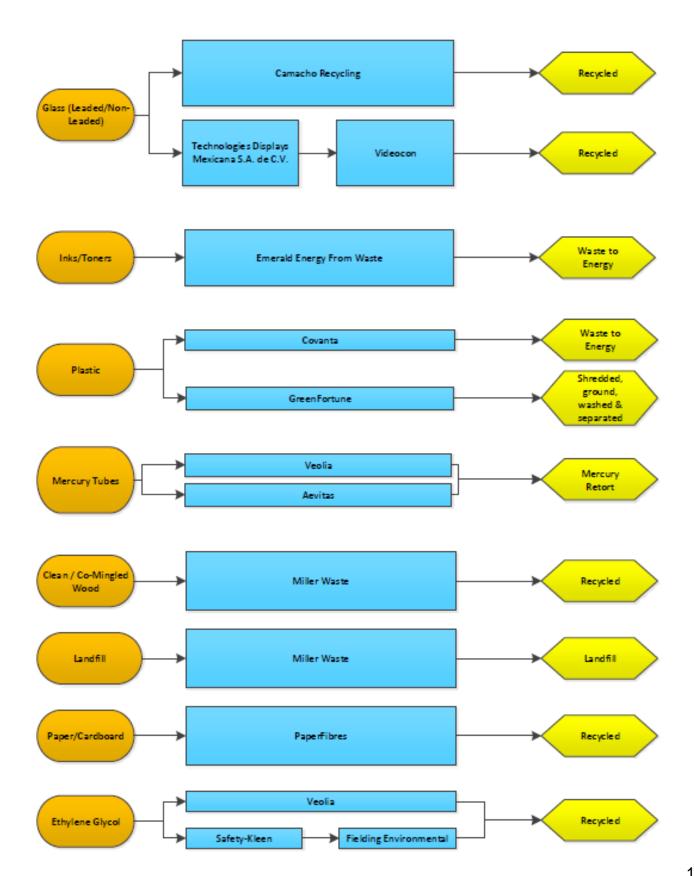
GEEP Canada Inc - Barrie

Downstream Material Flow

GEEP, Barrie

Manual dismantling of electronics to remove substances of concern and visually separate identifiable plastic. Various shredders are utilized to process e-waste and dust collected through the processing equipment is sent for precious metal recovery.





Appendix H - Bell Aliant Certified Recycler Information

Recycler Name GEEP Canada Inc.

Recycler Address

GEEP Canada Inc. 220 John Street Barrie, ON L4N 2L2 Canada

Recycler Certifications

ISO 90001 ISO 14001 ISO 18001 R2 Standard **EPRA** RQO

Appendix I - Bell Aliant Logistics Partners Information

Logistic Partner's Name

Regional Storage and Logistics (RSL)

Logistic Partner's Address

Regional Storage and Logistics (RSL) 200 Bluewater Road, Unit 1 Bedford, NS B4B 1G9

Logistic Partner's Name

Progistix

Logistic Partner's Address

Progistix 71 Thornhill Drive Dartmouth, NS B3B 1R9