

Nova Scotia
Stewardship Program
Plan for Batteries
by
Call2Recycle Canada

Submitted to:

Nova Scotia, Department of Environment and Climate Change

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Contents

- 1. Introduction 3
- 2. Program Overview..... 3
- 3. Management Structure and Board of Directors 4
- 4. Program Details 4
 - 4.1 Batteries Included and Excluded in this Plan 4
 - Batteries included (under 5 kilograms each): 4
 - Excluded Products 5
 - Orphaned and Free Rider Batteries..... 5
 - 4.2 Collection System 5
 - 4.3 Accessibility 7
 - 4.4 Transportation, Sorting, and Processing 7
 - 4.5 Environmental Standards 8
 - 4.6 Safety 9
- 5. Program Funding 9
- 6. Auditing and Qualifications:..... 10
 - 6.1 Service Partner Qualification Process and Call2Recycle Certification Process 10
 - 6.2 Member Audits..... 11
- 7. Promotion and Education 11
 - 7.1 Strategic Approach 11
 - 7.2 Objectives..... 11
- 8. Contracts and Dispute Resolution..... 12
- 9. Reporting..... 13
 - 9.1 Annual Reporting..... 13
 - Summary of Reporting Commitments and Targets 14
- Appendices..... 16
 - Appendix A : Call2Recycle Members with Signed Letters of Intent for the Nova Scotia..... 16
 - Appendix B: Glossary 17
 - Appendix C: Consumer Awareness Study..... 19

1. Introduction

Call2Recycle Canada, Inc., which administers the Call2Recycle® program on behalf of obligated producers under provincial regulations, is a Canadian not-for-profit battery stewardship organization. With a national scope, Call2Recycle operates approved producer responsibility programs in provinces with battery regulations in place and operates voluntary programs in provinces where regulations are not in place. For more than 20 years, Call2Recycle has been managing a voluntary battery collection and recycling program in Nova Scotia.

In the province of Nova Scotia, the Solid Waste-Resource Management Regulations (the Regulation) sets out requirements obligating brand owners to participate in a stewardship program approved by the minister. This 2024 – 2029 stewardship program plan for primary and rechargeable batteries weighing less than five (5) kilograms is being submitted on behalf of obligated brand owners who have appointed Call2Recycle Canada, Inc., as their stewardship program. A list of brand owners can be found in Appendix A. An updated list of members who have appointed Call2Recycle as their stewardship program will be available under the “Stewards” section of the Call2Recycle website www.call2recycle.ca.

This plan is effective from July 1, 2024- December 31, 2029

2. Program Overview

Call2Recycle was established to help producers fulfill their regulatory product stewardship obligations for brand owners of batteries sold into Canadian markets. Since inception, the program has diverted more than 40 million kilograms of batteries from the solid waste stream and established more than 10,000 collection sites across Canada.

Since 1997, Call2Recycle has operated a robust consumer battery collection and recycling program across Canada, and today works on behalf of over 400 obligated producers as defined by provincial regulations. The program collects and recycles single-use and rechargeable batteries weighing less than five (5) kilograms from retailers, local governments, businesses, and consumers.

Call2Recycle’s network of public and private collection facilities, sorters, and processors ensures optimal efficiency, cost-effectiveness, and continued growth along with promoting ease and practicality of the program. Call2Recycle’s national reach facilitates recognition among consumers and reduces administrative red tape and redundancies for larger collection site operators.

To be effective contributors to the cause of conservation and recovery, Call2Recycle routinely adopts best practices gleaned from its own research and from associate organizations both in Canada and internationally to increase collections. Promoting environmental sustainability across the country, Call2Recycle is certified under the Responsible Recycling (R2) Standard, the electronics recycling industry’s leading global recycling certification. The R2 Standard provides a common set of processes, safety measures, and documentation requirements for businesses that repair and recycle used

electronics. The Standard lays out the proper procedures for recycling electronics with a key focus on protecting the environment and worker health and safety. The R2 Standard is based on continuous improvement, requiring Call2Recycle to improve processes and procedures around the environment, health, and safety through internal process and documentation. Organizations certified under the R2 Standard must maintain a Quality, Environmental and Occupational Health and Safety Management System. To meet these requirements, Call2Recycle is certified to ISO 9001, 14001 and 45001.

3. Management Structure and Board of Directors

Call2Recycle is a federally incorporated non-profit organization and is governed by a board of directors that is committed to ensuring an efficient and effective program. The board is comprised of battery manufacturers, distributors and retailers and independent directors.

The President of Call2Recycle reports directly to the board of directors. Management of the provincial program will be overseen by the Director, Eastern Canada with program services provided by several departments including account management, operations, customer service, member services, marketing and communications, finance and accounting, and information technology.

4. Program Details

The Call2Recycle program is designed to meet the regulatory requirements of obligated parties in Nova Scotia for single-use and rechargeable batteries under the Regulation. This stewardship program plan will address rechargeable and single-use battery chemistries weighing less than five (5) kilograms each. This stewardship program plan includes easily removeable batteries, regardless of whether the battery is supplied standalone product or embedded in a product¹ and batteries generated by both consumers and those generated by private businesses and other organizations.

4.1 Batteries Included and Excluded in this Plan

Batteries Included in the Stewardship Plan:

Batteries included (under 5 kilograms each):

- Rechargeable and single-use battery chemistries.
- Batteries, regardless of if the battery is supplied as stand-alone product or embedded in a product¹.
- Batteries generated by both consumers and by private businesses or other organizations.

Examples of battery chemistries included (See Appendix A for detailed definitions):

Alkaline/Carbon Zinc (AA, AAA, 9V etc.)	Nickel Zinc (Ni-Zn)
Lithium Ion (Li-Ion) ²	Silver Oxide
Lithium Primary	Small Sealed Lead Acid (SSLA/Pb)
Nickel Cadmium (Ni-Cd)	Zinc Air

¹ Except when batteries are sold in or with a device that is covered under a pre-existing approved stewardship plan.

² Including portable power banks, a small lithium-based, stand-alone rechargeable battery that is self-contained and typically transportable unit that stores and supplies electrical power to electronic devices external to the device. The portable power unit can be designed to be used by a specific device, such as a power pack integrated into a phone case, or by connecting via a cord to various devices.

Batteries sold in or with a product including (this list is illustrative, not comprehensive - see section 5 for more information)

- Garden tools
- Construction/renovation tools
- Smoke and CO alarms
- Portable flashlights and spotlights
- Electronic toys
- E-bikes, E-Skateboards, E-Scooters, and Hoverboards, Ride-on toys

Excluded Products

This stewardship plan does not include management of:

- Batteries weighing more than 5 kg.
- Damaged, defective, or recalled batteries that have been removed from a device that is covered under a pre-existing approved stewardship plan by the province of Nova Scotia.

Orphaned and Free Rider Batteries

“Orphaned batteries” refers to batteries produced by a manufacturer that either no longer exists or no longer produces batteries. “Free rider” also refers to an obligated entity that is not a registered member of the Call2Recycle program or other battery stewardship program. Call2Recycle’s program is operated on behalf of Call2Recycle members who are obligated brand owners of batteries, including those who offer batteries for sale online, in the province of Nova Scotia. Call2Recycle makes concerted efforts to register all obligated entities with the program to eliminate free rider activity. However, it should be noted that both orphaned and free rider batteries are accepted by the program and are diverted from landfill. The program will make best efforts to outreach to obligated parties and encourage participation as a member in the program. Call2Recycle will provide Nova Scotia Environment and Climate Change with any information required to assist them in identifying and communicating with obligated parties that are not participating under an approved stewardship plan.

4.2 Collection System

Call2Recycle operates a turnkey, highly efficient national program. Based on over 25 years of experience, Call2Recycle’s program is well suited to meet the requirements under Nova Scotia’s regulation on behalf of obligated producers. The program’s primary focus is to recycle consumer batteries—wherein all batteries collected are recycled responsibly and diverted from landfill.

Call2Recycle designs its network of drop-off facilities across the province to enable consumers to drop-off their used batteries at locations convenient to them. The program has established a qualification process for collection facilities to maximize battery returns. Call2Recycle also accepts batteries from business and Industrial, Commercial and Institutional (IC&I) sectors. These collection sites may or may

not be open to the public. Often, they are significant purchasers of consumer batteries and collectors of used consumer batteries in Nova Scotia.

Any retailer, business, institution, or government entity that meets program collection site requirements can participate as a drop-off location that is open to consumers (public site) or as a private collection site collecting batteries used internally (private site). Public collection sites are strategically located where they are most likely to be used by consumers. Below are other considerations when establishing collection sites:

- **Accessibility** – To ensure an optimal number of collection sites available to the public based on geography, population density, and ease of access.
- **Convenience** – Facilitate ease of drop-off for consumers not only in urban areas, but rural and remote communities by providing collection services at non-traditional drop-off locations, recycling/round-up events, or through curbside battery collection special projects.
- **Cost-effectiveness** – It is necessary to manage the program’s cost-to-serve for continued growth and success.
- **Environmental health and safety** – Call2Recycle will work with companies wanting to enroll in the collection program to promote environmental health and safety through battery recycling.
- **Association to batteries** – The likelihood that consumers will correlate batteries with the location (e.g. an electronics store or recycling depots).

Call2Recycle collection sites are required to use one of two collection methods: the bulk program or the box program.

- The bulk program caters to facilities that generate large quantities of batteries for recycling (250 kg minimum per shipment).
- The box program is designed for sites that do not generate large quantities of batteries in a short period of time or do not have the space to collect bulk quantities. These sites receive boxes program-provided collection containers, such as a collection box at no cost to them. The container kits include promotional material, plastic bags for battery terminal protection, and pre-paid shipping labels for returning full box.

Sites that collect in bulk quantities may opt to use Call2Recycle-provided containers or ship in UN rated drums. If shipping in drums, collection sites must acquire and cover the cost associated with purchasing drums. There is no cost for collection sites to ship either bulk and box shipments to Call2Recycle’s consolidation and/or sorting facilities.

Batteries are shipped by collection sites to a designated Canadian sorting facility. There, the batteries are separated by chemistry and then sent to processing partners where their component parts are extracted for other uses.

Call2Recycle intends to collaborate with interested municipalities to pilot a battery curbside collection program. The results will be used to advise on the future viability of collecting program material in this manner.

4.3 Accessibility

Call2Recycle has serviced the province of Nova Scotia for more than 20 years with a voluntary consumer battery collection and recycling program. Convenient and accessible drop-off locations are available across the province. Public collection locations that are available to Nova Scotia residents are listed on Call2Recycle's online locator. Residents can search by postal code or city and province to find a battery collection location. Call2Recycle's Customer Service staff is also available to assist the public in locating a collection site nearby. Call2Recycle maintains a strong collection network, which currently offers more than 300 public and private collection sites throughout Nova Scotia.

On behalf of obligated brand-owners, Call2Recycle will take proactive measures to ensure reasonable and convenient access to battery collection locations in the province. Call2Recycle has a pre-existing collection network established and is committed to expanding the network to increase accessibility. This may include seeking partnerships with collection facilities that accept multiple product streams from consumers to maximize provincial coverage and accessibility.

Residents across the province will be offered a variety of battery collection options that range from permanent year-round drop-off sites to seasonal collection events, including community collection events. In 2022, 79 per cent of Nova Scotia residents resided within a 15 km radius of an available battery drop-off location. On behalf of its members, Call2Recycle will report on the accessibility in the province with the goal of increasing the percentage of the population with access to a battery drop-off location or a battery collection event within 15 kilometers to 92 percent by 2030.

4.4 Transportation, Sorting, and Processing

Call2Recycle will continue to utilize a variety of service providers including those for transportation and sorting. To optimize participation, improve efficiency, and increase battery collection rates, Call2Recycle is committed to an open, transparent, and fair process in selecting service providers.

Call2Recycle operates in accordance with intra- and inter-provincial shipping and transportation standards established by Transport Canada and Environment Canada, and any other applicable provincial environment and transportation ministry approvals. Shipments transported internationally are manifested/shipped according to Environment Canada and Transport Canada.

Currently there are no sorters operating in Nova Scotia, therefore batteries collected through Call2Recycle in the province are sorted and consolidated at service providers throughout Canada. Once batteries are sorted according to chemistry, their weights are recorded, and they are prepared for shipping to the appropriate recycling processor based on their chemical composition.

Call2Recycle is committed to meeting the highest global standards for safe and effective battery processing. The program seeks to maximize the amount of material that is captured from processing to direct it to secondary uses. Through the Call2Recycle program, most batteries' constituent parts are reclaimed and diverted from the waste stream. Different battery chemistries require different

reclamation methods; therefore, Call2Recycle seeks partnerships with various processors to ensure optimal performance. All Call2Recycle's processing facilities use the latest and proven-effective thermal, mechanical, or chemical processes to recover materials such as nickel, iron, lead, cadmium, and cobalt. When possible, Call2Recycle utilizes local partners to help reduce its transportation footprint. Call2Recycle will continue to seek viable local opportunities should they become available. All partners must meet Call2Recycle requirements, standards, and policies and must comply with governmental regulations.

4.5 Environmental Standards

The Province of Nova Scotia is committed to the reduction, reuse, recycling, and safe disposal of hazardous materials. Call2Recycle cannot promote a reduction in the use of batteries, as reconditioning batteries for reuse can pose an unacceptable safety risk to consumers if not done properly. Therefore, Call2Recycle only supports the reconditioning and reuse of batteries if safety is not compromised and the proper guidelines are followed, including proper authorization to perform reconditioning, adhering to strict safety testing standards, and ensuring reconditioned batteries are labelled as such.

Recycling is the most viable way of keeping battery waste from entering landfills. The Call2Recycle program recycles batteries of all types efficiently and cost-effectively, and no battery collected through the program that can be recycled goes to landfill. The reclaimed materials from the batteries collected can be used in various products, such as new batteries, cookware, appliances, and hardware.

Call2Recycle is the first program of its kind to receive the Responsible Recycling Practices Standard (R2) certification, affirming that Call2Recycle meets stringent R2 standard requirements relating to environmental and public health, worker health and safety, security aspects of electronics recycling, and the management of the collection and distribution of batteries and cellphones to downstream processors for recycling.

Call2Recycle's transportation and battery processing partners have passed a rigorous selection process to ensure that they comply with applicable environmental, health and safety, and transportation regulations. Each processor is continually monitored to ensure competitive pricing and the ability to adapt to volume increases.

Call2Recycle regularly monitors the landscape to keep abreast of the activities, regulations, and new capabilities within processing facilities both locally and nationally, if available. The program also commits to regularly reviewing processors to ensure that they can demonstrate an ability to adapt to Call2Recycle's program growth and volume increases in recyclable materials. Call2Recycle manages contracts with collectors, processors, and third parties in compliance with municipal, provincial, and federal laws and legislation.

The program will report annually on product end-fates and battery recycling efficiency rates (RER) by chemistry. Any changes to the recycling efficiency rates or product end fate will be disclosed in the

annual report, it must be noted that these RERs are processor-specific and may change from time to time if there is a change in processor or updates to the processor's technology.

4.6 Safety

The safety of consumers, collection sites, transporters, sorters, and processors are a top priority for Call2Recycle. When certain types of batteries reach end-of-life, they may still retain a residual charge that can present a safety risk if not handled properly. To advance the program's commitment to safety, Call2Recycle has introduced a flame-retardant liner affixed in all boxes distributed in Canada. This innovation offers an additional layer of protection from a thermal event during the battery journey – from collection to transportation to sorting and processing. When used in conjunction with Call2Recycle's program guidelines and terminal protection requirements, the liner helps prevent flames escaping from the battery box should an event occur. Collection boxes are also UN4GY rated and have been approved by Transport Canada.

5. Program Funding

Environmental Handling Fees (EHFs) are used to fund the program, including but not limited to communications, collections, transportation, processing, and administration. It is solely the decision of the individual member whether or not to recover the EHFs paid into the program from consumers through a separate invoice item or product price. Call2Recycle provides its members with promotional materials to help educate the public about EHFs. Call2Recycle will execute consumer campaigns to ensure public education on EHFs and battery collection and recycling.

EHFs are reviewed annually and set through a budgeting process and are reviewed and approved by the Call2Recycle Canada, Inc. Board of Directors. Based on the number of units of batteries sold into the province, members report quantities at pre-set periods using an online system. Members are provided with a minimum of 90 days' notice of any changes to the EHF schedule. Call2Recycle will keep the ministry apprised of any upcoming changes pertaining to the schedule of EHFs.

EHFs may be applied to some products containing easily removable batteries. Products are selected based on the likelihood that their batteries will end up in Call2Recycle's recycling stream due to frequency of battery replacement associated with usage. The program's goal is to ensure that applicable batteries are safely managed at end-of-life while also minimizing the potential for cross-subsidization between products and categories. Applicable products may include garden tools, construction and renovation tools, smoke and carbon monoxide alarms, portable flashlights and spotlights, electronic toys, electric bicycles, and electric scooters. Any fee placed on these categories is to manage the batteries and not for the device itself. Product categories are subject to change.

The organization maintains a reserve fund, the amount of which is determined by Call2Recycle Canada's Board of Directors. This fund ensures the stability of the current program and any future financial obligations that may arise including wind-down costs if necessary.

6. Auditing and Qualifications:

Call2Recycle is committed to ensuring that registered obligated entities (members) and service partners, and the program itself are compliant with Call2Recycle standards and industry best-practices.

6.1 Service Partner Qualification Process and Call2Recycle Certification Process

Call2Recycle maintains a diverse group of approved downstream vendors or third-party logistic providers (3PLs) used for transportation, sorting, and processing of program material. All contracted partners have gone through an initial and recurring annual auditing process consistent with the requirements found in the provisions of the R2 standard. The program's vendor due diligence is the most stringent in North America.

The program specifies material flow for all downstream vendors through to end of life. A robust information system tracks focus material as it moves through the program's downstream vendor network. These safeguards help affirm Call2Recycle's commitment to proper downstream management of battery collections, including not exporting to developing countries or sending materials to local landfills.

In 2023, the organization was certified to the R2v3 standard, the latest version of R2, the electronics recycling industry's leading global recycling certification. This distinction reinforces Call2Recycle's commitment to following stringent requirements regarding safe, secure battery collection and processing. Call2Recycle is committed to an open, fair and transparent process to select the best service providers based on several criteria.

Some highlights of Call2Recycle's program include:

- As a program manager, Call2Recycle specifies the program material flow for all approved downstream vendors through to end-of-life.
- A robust information system tracks program material as it moves through all approved downstream vendor network through to end-of-life.
- These safeguards help affirm Call2Recycle's commitment to proper downstream management of battery collections, including not exporting to developing countries or sending materials to local landfills.

Call2Recycle maintains the following certifications and permits:

Certifications:

- R2 – Responsible Recycling Standard
- ISO 9001 – Quality Management System Standard
- ISO 14001 – Environmental Management Systems Standard
- ISO 45001 – Occupational Health and Safety Management System Standard

Permits:

- Permit of Equivalent Level of Environmental Safety (PELES) – allows Call2Recycle to move batteries intended for recycling between provinces across Canada.
- Transport Canada Equivalency Certificate - authorizes Call2Recycle and its program participants to handle, offer for transport or transport products accepted for recycling within the program parameters.
- Certificate for Damaged, Defective, or Recalled (DDR) Batteries - authorizes Call2Recycle and its program participants to handle and transport DDR products accepted for recycling within the program parameters.

6.2 Member Audits

Call2Recycle conducts periodic audits of its members with respect to the sale, supply, distribution and importing of obligated products in the relevant provinces where the programs are being implemented and operated. These audits verify the accuracy of the remittances of EHF's by the members to Call2Recycle.

7. Promotion and Education

7.1 Strategic Approach

While Call2Recycle operates a national program across Canada, it also appreciates the unique characteristics of individual provinces, its residents, and available communication channels. Knowing who to reach and how to reach them is critical to the success of any outreach and education plan. To that end, Call2Recycle will engage in specific research to further understand the nuances of the Nova Scotia market.

To ensure a successful education and awareness campaign, the promotion and education budget will support a range of new and recurring outreach and education efforts. Consumer awareness, attitudes, and actions will be monitored using third-party surveys, and programs will be evaluated against key metrics, including annual collection results and accessibility to collection network. Based on continued learnings and outcomes, strategies and plans will be adjusted accordingly. Call2Recycle will report on the awareness survey results in the annual report.

We are excited to announce that our new, consumer-facing brand has been launched. The **Recycle Your Batteries Canada!** brand which attaches a consumer-friendly name to our household battery recycling program. This program has been introduced to Nova Scotia and across the country and is designed to increase consumer awareness, drive collection rates and enhance our program's brand profile.

You can now visit the new site(s) at: www.RecycleYourBatteries.ca or www.RecyclezVosBatteries.ca .

7.2 Objectives

To help raise awareness, drive participation, and maximize collections with residents of Nova Scotia, Call2Recycle will offer opportunities to collection network participants including retailers, businesses, and municipalities to participate in various education and promotion campaigns. On a parallel track, Call2Recycle will implement a proactive outreach program targeting opinion leaders, stakeholders, and media outlets. This will be complemented by integrated, multi-channel promotions through traditional, non-traditional, and digital media, as well as sponsorships and partnerships to efficiently reach the defined target audiences and further battery diversion goals. Objectives for consumer awareness campaigns are as follow:

- 1) **Educate:** Inform Nova Scotia residents:
 - a) Household batteries can and should be recycled
 - b) Why it’s important to recycle household batteries
 - c) How and where to recycle household batteries
- 2) **Motivate:** Inspire the audience to recognize the role they play—raising awareness of the importance of battery recycling.
- 3) **Move to action:** Demonstrate the accessibility of battery drop-off sites and provide options to help the public identify convenient collection locations via online, partner, and telephone locators.

<u>Target Audiences</u>		
Nova Scotia Residents	Collection Network	Stakeholders
Consumers Businesses	Public Sites (collect directly from residents): Municipalities, Retailers, Communities Private Sites (internal collections): Solid Waste Facilities, Businesses	Key Influencers (Local Government, Industry and Trade Associations, and Non-Governmental Organizations) Call2Recycle Members/Obligated Parties Media, Experts, Influencers

Call2Recycle will also seek opportunities to work collaboratively with other approved stewardship programs, when possible, with the goal of increasing convenience and enhancing program efficiencies.

With the goal of increasing awareness, on behalf of its members, Call2Recycle will conduct an annual consumer awareness survey and will report on the percentage of Nova Scotia residents who are aware that batteries can be safely recycled, with a target of achieving 82% awareness by 2029. The survey will also measure the percentage of residents who report having recycled batteries and the percentage who are aware of where to look to find a battery drop-off location.

8. Contracts and Dispute Resolution

For entities that enter into an agreement for the collection, transportation, and processing of batteries, a contract is put in place that outlines the dispute resolution process. For entities that do not have a formal agreement with Call2Recycle, the same approach will be followed. As a first step, once the issue has been raised in writing, representatives from Call2Recycle and the other party will attempt to resolve it within 30 days or a mutually agreed upon timeframe. If the parties cannot come to a resolution within the given timeframe, the two parties will jointly select a third party to arbitrate and settle the dispute with his/her decision. Call2Recycle operates in good faith with its partners and will try to resolve a dispute without arbitration. Arbitration will only be used if both parties cannot come to a reasonable solution.

9. Reporting

9.1 Annual Reporting

As per the Regulation, Call2Recycle will submit a written annual report to the minister on or before June 30th of each year. The annual report will cover the period starting January 1 and ending December 31 of the previous year. The annual report will include:

- The total weight of single-use and rechargeable batteries (both by type and as an aggregated total), covered under this program plan, that were collected during the reporting year.
- A description of program activities during the report year.
- The percentage of the total number of batteries collected that falls into each of the following categories: reused, recycled, processed, recovered for energy, otherwise managed.
- The types of processes used to manage the batteries at end of life
- Disclosure of recycling efficiency rates
- Whether the recovery rate target was achieved
- The location of processing or containment facilities for batteries
- A description of the types of consumer information, educational materials and strategies
- an assessment of consumer awareness of the battery stewardship program;
- Accessibility report and information on collection network.
- Audited financial statements for the programs' operations in Nova Scotia

Summary of Reporting Commitments and Targets

Plan Reporting Commitments

INDICATOR	REPORTING COMMITMENT
Collection	<ul style="list-style-type: none"> • Number of collection sites • Total weight of batteries collected • Total weight collected for each battery type: lead acid, other rechargeable and primary . • Batteries collected per capita • Whether the recovery rate was achieved
Awareness and Education	<ul style="list-style-type: none"> • Percentage of residents aware that batteries can be recycled in Nova Scotia. • Percentage of residents who are aware of where to look to find a battery drop-off location. • A description of the types of consumer information, educational materials and strategies
Management of Environmental Impacts	<ul style="list-style-type: none"> • Disclosure of recycling efficiency rate by processor. • A description of the types of processes utilized to reuse, recycle, process, recover energy from or otherwise manage or dispose of batteries. • The location of processing or containment facilities for batteries. • The percentage of the total number of batteries collected that falls into each of the following categories: reused, recycled, processed, recovered for energy, otherwise managed
Financial	<ul style="list-style-type: none"> • Audited Financial Statement for Nova Scotia

Plan Targets

Measures	2024	2025	2026	2027	2028	2029
Accessibility³	80%	82%	84%	86%	88%	90%
Collections Targets (Recovery Rate)⁴	Best efforts	25% or Best efforts	30%	35%	40%	45%
Battery Recycling Awareness⁵	N/A	78%	79%	80%	81%	82%

³ The percentage of the population who are aware of where to look to find a battery drop-off location.

⁴ Recovery rates are calculated by dividing the total battery weight collected in the province in the reporting year by the total weight sold in the province, expressed as a percentage. Battery units sold into the province, as reported by members through remittance of Environmental Handling Fees (EHF), are converted into weights based on industry standards. To address product life span and in line with other Canadian jurisdictions, once 3 years of sales data are available for Nova Scotia, the denominator will be calculated based on a three-year rolling average.

⁵ The percentage of the population that is aware that batteries can be recycled in the province annually and the percentage of the population who is aware of where to look to find a battery drop-off location.

Appendices

Appendix A : Call2Recycle Members with Signed Letters of Intent for the Nova Scotia Program

The following is a list of Call2Recycle members who intend to appoint Call2Recycle as their extended producer responsibility organization for battery recycling under the Nova Scotia Regulation. Their intent has been communicated through a signed letter of intent.

- Home Depot
- Costco
- RONA/Lowe's
- Dollarama
- Stanley Black & Decker
- McKesson
- Giant Tiger
- Staples
- Rexall

Appendix B: Glossary

The following is a glossary of key terms and definitions related to the products covered in this plan.

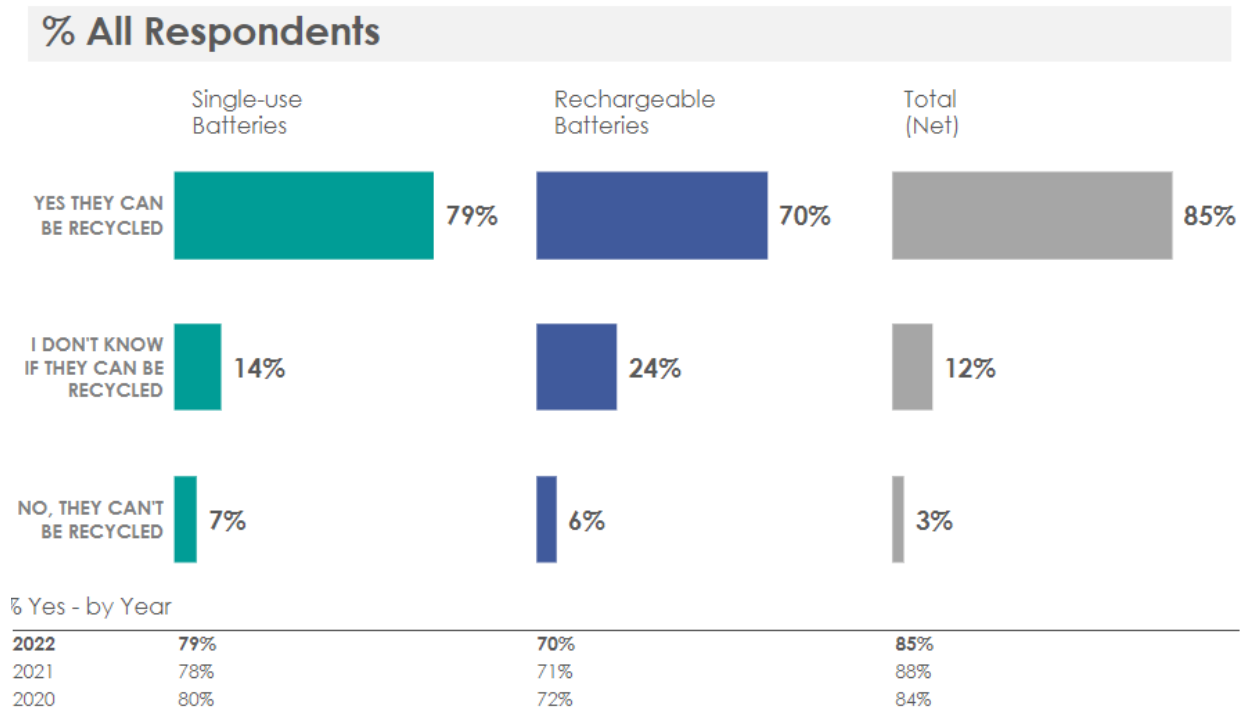
Alkaline /Carbon Zinc	A type of single-use battery (e.g., AA or AAA, C, D, 9V, and button batteries).
Batteries	Rechargeable and single-use batteries weighing less than 5 kilograms each.
Carbon Zinc	A type of single-use battery.
Collection Target	Projected quantity of batteries to be collected on an annual basis.
Damaged or Defective Batteries	Batteries that are not intact or are physically damaged.
Environmental Handling Fee (EHF)	A fee per unit sold that is representative of the cost to collect, handle, transport, and responsibly recycle batteries at the end-of -life.
Extended Producer Responsibility (EPR)	An environmental policy wherein the producer is responsible for the reduction of environmental impacts across the life cycle of the product.
Lithium Ion (Li-Ion)	A type of rechargeable battery.
Lithium Primary	A type of single-usebattery.
Nickel Cadmium (Ni-Cd)	A type of rechargeable battery.
Nickel Metal Hydride (Ni-MH)	A type of rechargeable battery.
Portable Power	A lithium-based, stand-alone rechargeable battery used to supply electrical power to electronic devices external to the device.
Private Collection Facilities	A location that actively collects batteries, not open to the public for battery drop-off.
Processing	Manual, mechanical, thermal, or chemical alteration of batteries for the purpose of recycling.
Processor	An entity that engages in end-of-life management of batteries for the purpose of recycling.
Public Collection Facilities	Drop-off locations that are open to the public, even for a minimum amount of time, for collection of batteries. Includes public-facing collection events.
Rechargeable Battery	A type of battery that is capable of being charged again multiple times after its power has been discharged.
Recycling Efficiency Rate	Defined by CSA as the amount of material recycled as a percentage of the amount of targeted material collected (inbound) minus reuse and shrinkage. The measurement of recycling efficiency will differ according to the nature of materials, markets, and processing methods.
Recovery Rate	The amount of product collected divided by the product generated, expressed as a percentage.
Responsible Recycling Standard or R2	The R2 standard outlines responsible recycling practices for the recycling of electronics globally. The requirements are comprehensive and cover environmental, health and safety, and data security practices. This standard is provided through an accredited third-party to ensure the program practices are conducted in an environmentally responsible manner, protective of the health and safety of workers and the public, and that the data on media devices is secure until destroyed.

Single-Use Battery	A battery that cannot be recharged by the consumer, commonly known as AA, AAA, 9V, D-cell, and button cell batteries. Single-use batteries are also known as primary batteries.
Small Sealed Lead Acid	A type of rechargeable battery.
UN Rated Drums	UN ratings signify whether a steel or plastic drum meets health and safety standards for storage and transport of hazardous materials. UN ratings are set by the United Nations.
UN4GY rated	UN rating for packaging systems which include specific inner packages contained within a single outer package. Call2Recycle uses a corrugated box with flame retardant liner.
Wet Cell Batteries	A battery, typically used in industrial applications containing liquid electrolyte such as sulfuric acid, a dangerous corrosive liquid.
Zinc-air	A type of single-use battery.

Appendix C: Consumer Awareness Study

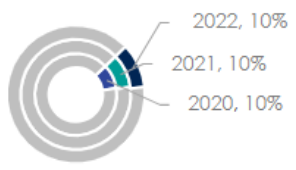
An example of the types of questions that may be asked in the annual consumer awareness survey. The questions are subject to change.

Belief That Batteries Can Be Recycled

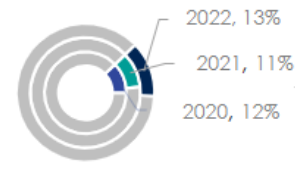


Habits With Single-Use And Rechargeable Batteries

		2022		2021	2020
I RECYCLED SOME OR ALL OF THEM	AVG. % RECYCLED	65%	▲	51%	58%
	ALL	52%	▲	37%	46%
	RECYCLED	75%	▲	62%	71%
I AM STILL STORING SOME OR ALL OF THEM	AVG. % STORED	19%		18%	25%
	ALL	11%		11%	13%
	NONE	68%		69%	61%
I THREW SOME OR ALL OF THEM INTO THE GARBAGE	AVG. % THROWN AWAY	11%	▼	27%	12%
	ALL	8%	▼	25%	6%
	NONE	83%	▲	69%	82%



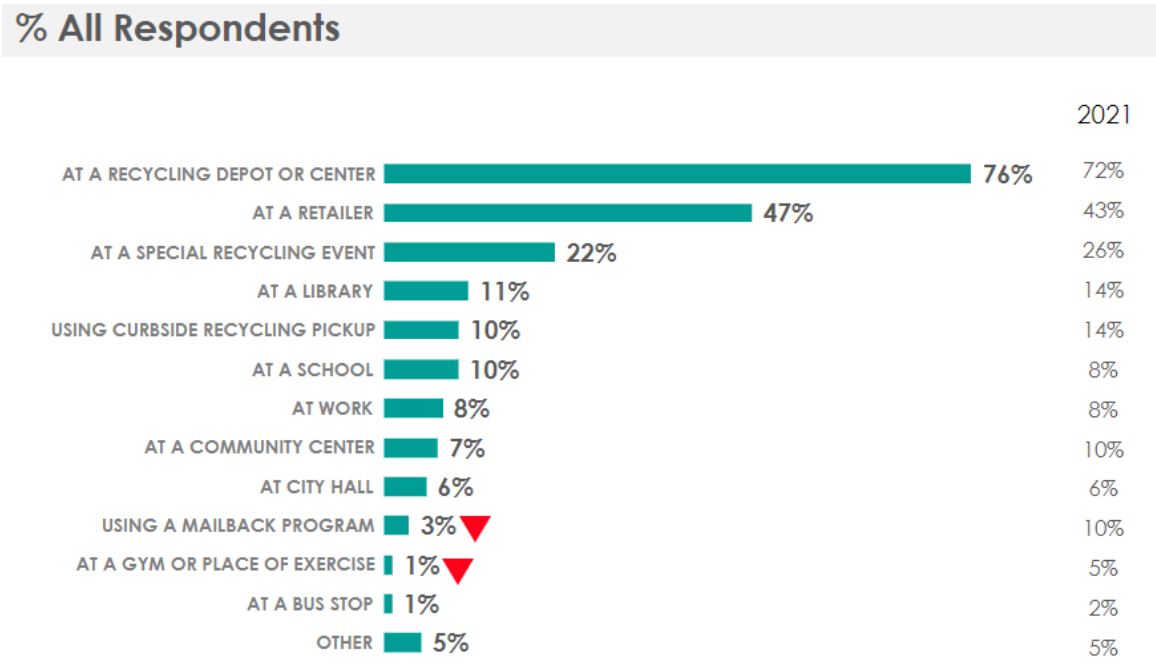
I haven't used this type of battery in the last 12 months



I haven't finished using this type of battery in the last 12 months

Avg. disposed some other way: 4%

Where PEI Residents Think They Can Recycle Batteries



16 - © Ipsos Q3a. At which locations do you think you can recycle batteries at?
Base: 2022 (n=400)