

Stewardship Plan for Lead-Acid Batteries for the Province of Prince Edward Island



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Executive Summary

The Canadian Battery Association (CBA) estimates that in 2013 approximately 450,000 kg of lead-acid batteries (LABs) were sold in Prince Edward Island. Approximately 85% of the LABs were sold to consumers for use in cars and trucks. The remaining 15% of sales were industrial systems such as motive batteries (e.g., use in forklifts and golf carts) and stationary batteries (e.g., use for power storage and emergency power backup). The motive and stationary systems are not sold to the public and are business-to-business transactions.

The CBA's Stewardship Program account for approximately 85% of the LAB's sold in Prince Edward Island. The remaining 15% of LABs are sold in new products that contain a lead-acid battery (e.g., vehicles, boats, motorcycles etc.).

The CBA's Stewardship Program for Prince Edward Island provides for a return-to-retail recovery program for consumers and a business-to-business recovery program for industrial motive or stationary batteries.

Recovered consumer and industrial LABs will be transported to warehouse locations using a reverse-distribution system. The recovered batteries will be tested and sorted and the lead-acid batteries that cannot be refurbished will be bulk shipped to smelters for recycling.

The CBA currently has 7 return collection facilities that cover the two cities on Prince Edward Island and several of the rural communities. Go to www.recyclemybattery.ca for more information about the return collection facilities on Prince Edward Island. In addition, CBA members operate five warehouses in New Brunswick and Nova Scotia that recover industrial lead-acid batteries. In addition, there is an independent recycling infrastructure of automotive and steel recyclers that will also collect consumer and industrial LABs throughout Prince Edward Island.

The current recovery rate for all consumer and industrial batteries sold on Prince Edward Island is estimated to be 112% based on data collected in 2013 from the Maritime Provinces.

Because of the strong commodity price for recycled lead and the high recovery rate, the CBA will not require a visible eco-fee on the purchase of LABs. The demand for lead provides sufficient economic incentive to recover LABs from the urban and rural areas of Prince Edward Island.

1 Introduction

The Canadian Battery Association (CBA) is developing a National Stewardship Program for Lead-Acid Batteries (LABs) and operates Stewardship Programs in New Brunswick, Manitoba and British Columbia.

The Stewardship Plan for Prince Edward Island is submitted to the Ministry of Environment, Labour and Justice to meet the requirements of the Materials Stewardship and Recycling Regulation.

1.1 *Regulatory Requirements*

There are a variety of Federal and Provincial Acts and Regulations that will have an influence on the development and implementation of the Stewardship Plan. Those Acts and Regulations are:

- Canada's Environmental Protection Act and its Regulations
- Canada's Transportation of Dangerous Goods Act and its Regulations;
- Prince Edward Island's Environmental Protection Act and the:
 - Materials Stewardship and Recycling Regulation;
 - Waste Resource Management Regulation

These acts and regulations will be integrated into the Stewardship Plan.

1.2 *About Lead-Acid Battery Use in Prince Edward Island*

Lead-acid batteries (LABs) are important in both consumer and industrial applications. LABs are used to:

- Start our vehicles, boats and recreational vehicles;
- Power our electronics, telecommunication systems and safety systems (e.g., emergency lighting, fire alarms) during power outages;
- Start commercial trucks and public transport such as buses, trains and planes; power forklifts;
- Provide back power for data centres for bank networks, computer systems,
- Store power for alternative energy applications

Consumer LABs range in size from 5kg in small motorcycle batteries to 20 kg in an average vehicle battery. Industrial LABs have a wider range of weight – from 0.1kg to thousands of kilograms.

Because of the wide range of LABs, the stewardship plan groups the LABs into the following 5 categories:

Category	Size (kg)	Typical Application
Sealed Lead Acid (SLA)	0.1 – 20	Start small motors (motorcycles) emergency lighting, fire sensors
Vehicle – Passenger & Light Truck	10 – 20	start vehicles
Vehicle - Commercial Truck	30 -50	start transport trucks
Motive	30 – 300	forklifts, golf carts
Stationary	>300	large power supply and emergency back-up

The average life span of a LAB varies depending on their design, application and maintenance. SLA, vehicle and industrial truck batteries are designed to last approximately 60 months. Motive batteries (e.g., used in forklifts, golf carts) are a different design and are expected to last 7 years while Stationary batteries that typically serve as emergency or reserve power are much larger and can last for more than 20 years.

The market for LABs in Canada is estimated to be 200 million kg in sales annually. Approximately, 85% of those sales are for consumer and commercial vehicles. The remaining 15% are for industrial motive and stationary applications.

Statistics Canada reports 111,500 vehicles registered in Prince Edward Island and with a population of 145,200, there 0.76 vehicles per person in Prince Edward Island.

Statistic Canada indicates that the ratio of registered vehicles to population has been relatively constant since the 1970s. As such, the population growth rate of Prince Edward Island will provide a rough estimate of the growth rate in consumer LAB sales on an annual basis. Since 2005, the population growth rate in Prince Edward Island has been approximately 3%/yr, so the growth rate in consumer battery sales would be expected to be approximately 3% per year. Assuming that the average life span of a vehicle battery is 5 years, the number of vehicle batteries sold in Prince Edwards Island is just over 22,000 units and if the average vehicle battery weighs 20kg, then the total weight of vehicle LABs sold is expected to be on average 440,000 kg/yr.

While these figures represent a very rough estimate of sales and product growth rates for lead-acid batteries, they serve as a starting point for the development of the stewardship plan and the estimation of recovery rates for LABs for Prince Edward Island.

1.3 *Population Distribution in Prince Edward Island*

One of the key challenges of a Stewardship Plan is to provide accessibility to the consumer – especially in rural communities.

The 2009 population of Prince Edward Island according to Statistics Canada was 140,200 people located in 2 cities, 9 towns and 63 communities. These population centres are clustered into 3 Counties.

Like most other Maritime Provinces, Prince Edward Island has a high rural population distribution with 42% of the population living in rural locations. The remaining 58% of the population live in urban communities. Fortunately, Prince Edward Island does not have any communities that would be considered remote.

2 Program Administration

2.1 *The Canadian Battery Association*

The Canadian Battery Association (CBA) is a Federally-registered Not-for-Profit Association. The CBA has six manufacturers and 4 national distributors, including Interstate Battery Systems of America that account for more than 85% of the LAB sales in Prince Edward Island.

In addition to the other work conducted by the CBA, the Association has three stewardship objectives:

- provide members with an efficient, effective and convenient stewardship program;
- provide the statistical detail required by the stewardship program while protecting confidentiality of proprietary data;
- ensure the stewardship program covers all consumer and industrial lead-acid batteries.

Go to <http://canadianbatteryassociation.ca/index.php/pei> for a detailed list of the members of the CBA and the Brand Owners that meet the requirements of the Materials Stewardship and Recycling Regulation in Prince Edward Island.

2.2 Program Goals, Objectives and Principles

The goals of the Canadian Battery Association's Stewardship Program are:

- Provide a program that is convenience to consumers and retailers of lead-acid batteries;
- Provide a National comprehensive stewardship program that meets the regulatory requirements of each province;
- Promote the safe recovery, storage and transportation of recyclable lead-acid batteries.

The principles of the CBA Stewardship Program are:

- Integrate into the Battery Recycling Programs of members where possible;
- Use Reverse Logistics of members to minimize transportation costs and ecological footprints;
- Develop programs that do not impact the legal trade or the competitive commodity markets of recyclable lead-acid batteries;

2.3 Organization Structure & Management in Prince Edward Island

The CBA is managed across Canada by its Executive Director. The Executive Director is responsible for the overall administration of the program and the preparation and implementation of the stewardship plan in Prince Edward Island.

The administrative functions of the CBA include:

- development and implementation of the CBA's Stewardship Plan;
- preparing reports for regulatory agencies, Board of Directors and stakeholders;
- preparing the communication materials for the media releases;
- overseeing the budgets and contingency plans;
- undertaking stakeholder consultation and organization of Advisory Committees;
- resolving disputes and investigating complaints;
- developing annual business plans including annual strategies and actions designed to meet Performance Measures (see Section 6).

The CBA has a simple governance model. The Executive Director provides all management and administrative functions and governance is provided by the CBA's Board of Directors. The Board is comprised of the six founding members of the CBA plus other members of the CBA.

2.4 Accountability and Transparency

The CBA will engage Prince Edward Island's 3 Counties to ensure that the return collection locations for used lead-acid batteries from consumers are adequate.

In addition, the CBA website will have an entire section on Prince Edward Island (www.canadianbatteryassociation/pei.ca) with a section devoted to:

- Overview of program including current recovery rates, health and safety information, location of battery recycling depots;
- Administrative information including financial information, and the stewardship plan in downloadable format;
- The environmental story for lead acid batteries including the fate of lead-acid batteries, electrolyte and plastic;
- Forms and procedures for CBA members; and,
- Contact information.

Finally, the CBA will publish all the relevant information with respect to the safe collection, transportation and recycling of LABs in Prince Edward Island.

2.5 Dispute Resolution

There are three dispute resolution stages utilized by the CBA to resolve differences between two parties.

First Stage:

The first stage is to encourage the two parties to come to a fair resolution of the issue. Should any one of the parties be unsatisfied with the outcome of this stage, they must provide in writing to the CBA that the first stage of the dispute resolution procedure has not been successful.

Second Stage:

The CBA will take an active role in the mediation between the two parties. During this stage, the two parties will have an opportunity to describe the problem to the CBA and the CBA will generate options and a recommendation for consideration by the two parties. Should any one of the parties be unsatisfied with the outcome of this stage, they must provide in writing to the CBA that the second stage of the dispute resolution procedure has not been successful.

Third Stage:

In the event that no resolution has been reached, the CBA will appoint a qualified mediator or an arbitrator under the Arbitration

Act. The cost of the mediator and the remaining costs will be borne equally by the two parties.

In the event that the CBA is a party in the dispute, then Stage 2 would be by-passed because the CBA is a party in the dispute.

2.6 *Reporting and Review*

The CBA will review its stewardship programs every five years and submit an updated stewardship plan to the Ministry of Environment, Labour and Justice for approval.

In addition, the CBA will prepare an annual report for Prince Edward Island that will be submitted to the regulatory agencies and will be posted on the CBA's website.

The CBA will be responsible for the regulatory reporting, consultation and writing of the stewardship plan for regulatory agencies.

2.7 *Financing Mechanism*

The development, implementation and general administration of the CBA's Stewardship Program for Lead-Acid Batteries (LABs) will be borne by the members of the CBA through their annual membership fees.

The annual membership fees will be set to ensure that the administrative and program costs of the Stewardship Program for Prince Edward Island are covered. The membership fees will be reviewed each year at the CBA's Annual General Meeting.

Consumers will not be charged an eco-fee at the retail level. Eco-fees are not required because the value and demand for recycled lead provides sufficient incentive for Brand Owners in Prince Edward Island to collect, transport and recycle lead-acid batteries in all parts of the Province.

The current price for recyclable lead-acid batteries is approximately \$0.70 per kg delivered to a smelter. An average vehicle battery weighs between 14 to 20kg and has a residual value between \$10 and \$14 on Prince Edward Island.

Because of the value of lead-acid batteries at end-of-life, there is an active industry of independent recyclers that collect and recycle LABs. To compete

with independent recyclers, some CBA members employ several strategies to ensure the collection of LABs. The strategies used include:

- implementing a business-to-business core charge (deposit) / core credit programs at the wholesale level to encourage the return of LABs from the retailer to the manufacturer. Typically these core charges / core credits programs are \$10 to \$15 per automotive battery with greater amounts for larger battery sizes and they are a business-to-business program that is not an eco-fee.
- offering to pick up core LABs at no cost from wholesalers and consumers.
- organizing special collection of core LABs through sweeps and events that promote recycling activities of LABs.

3 Product Life Cycle Management

3.1 *Product Life Cycle Management*

This section summarizes the fate of the products, residuals and commodities. Lead-acid battery technology has been around for 150 years and its three basic components are all 100% recyclable. The following sections outline the fate of the lead-acid batteries and the numbers are taken from Battery Council International's brochure titled: Sustainability/Recycling.

3.1.1 Lead

Battery Council International estimates that 96% of all lead-acid batteries are recovered and recycled in North America.

Each cell of a lead-acid battery contains electrodes of elemental lead (Pb) and (PbO₂). Approximately 52% of the weight of a battery is recoverable lead. Small amounts of antimony, tin, calcium or selenium are usually alloyed in the electrode to add strength and simplify manufacture. The lead electrodes, battery posts and lead oxide are used to manufacturer lead for new grids, parts and lead oxide.

At the smelter, the lead-acid batteries are "broken" and the metals extracted and put through a Reverb Furnace. The furnace recovers a high percentage of the lead and the slag from the Reverb Furnace can be sent to a blast furnace and the residual lead extracted.

3.1.2 Electrolyte

Concentrated sulphuric acid is the electrolyte within the battery and the acid is involved in the electrochemical reaction that generates the “charge” in the battery. The concentration of sulphuric acid in an end-of-life lead-acid battery has a more neutral pH because the sulphur reacts with the lead leaving water to dilute the electrolyte.

The dilute electrolyte from used lead-acid batteries can be reused and recycled in a variety of processes:

1. Filtered and used on site: Acid is drained from the used batteries and filtered to remove any particles. This filtered acid is then used in the Waste Water Treatment Facility at the smelter.
2. Crystallized: Acid is put through a Crystallizer and in the process turned into Sodium Sulphate. The Sodium Sulphate is sold to manufacturers of glass, detergents etc.
3. Sold to Third Parties: The drained Acid is sold without any recycling or refining, to third parties. For example to Tanneries.
4. Neutralized: The Acid is neutralized using Caustic Soda into a Non-hazardous waste that can be disposed off safely.
5. New Filter Process – (Experimental): The drained Acid can be filtered using a new process whereby the Acid can be re-used in the manufacture of new batteries.

3.1.3 Casing

All lead-acid batteries have a plastic casing. The casing for SLI batteries will typically be made of polypropylene and the batteries will be black to promote recycling.

The casings for stationary batteries are typically made of clear acrylic so the battery can be visually inspected for damage and wear.

Both the plastic and steel casings are recovered and recycled into new cases for lead-acid batteries or used to create anoxic conditions in the smelting process.

4 Program Performance

The CBA's programs performance will be measured and reported for Prince Edward Island at <http://canadianbatteryassociation.ca/index.php/pei>. The following sections summarize the different performance measures and the actions used by the CBA to achieve its long-term targets.

4.1 Awareness

The key factors to the successful recovery and processing of products in a Stewardship Program are awareness of the program and support by consumers and industrial customers.

The CBA undertook a consumer awareness survey in BC during 2013 to gain a baseline survey of the public to industry-led product stewardship programs – see table below for results.

Awareness Program Exists To Take Care of Product	69%
Participation in the Program	51%
Know Where to Get Information about Recycling and Safe Disposal	68%
Know Locations to Take Unwanted Product	54%
Know Where to Get Information about Return Collection Locations	65%
Perception Program is Convenient	75%
Trust Program will Safely Recycle Product	84%

The 2013 study found that 69% of the respondents were familiar with the recycling of lead-acid batteries while 51% of respondents participated in the Program. The lower participation rate is because most consumers do not replace their vehicle lead-acid battery. Most battery replacements are done by service station technicians and as vehicles become more complex electronically, the “do-it-yourself” consumer that will replace their battery at home will decrease.

The CBA will increase awareness of its Stewardship Program by undertaking the following actions:

1. Prepare written communication materials for CBA members to give to:
 - consumers at the point of purchase;
 - return-collection and recycling facilities; and,
 - Prince Edward Island Counties.

The communication materials will focus on raising the awareness and support for the recycling of LABs. Further, the CBA will work with national brandowners and retailers to have the communications

materials integrated into their national advertising campaigns. Finally, the CBA recognizes that Canada has two official languages and in time, the communication materials will be prepared in both English and French.

2. Ensure the CBA's website and Producers' websites contains current information and communication materials regarding the stewardship program for LABs in Prince Edward Island. In addition, the CBA will establish a separate website dedicated to providing the information regarding the recycling of LABs and a 1-800 number and phone APP for consumers. The website www.recyclemybattery.ca will be the central website for consumers and industry to obtain information about the location of the return collection facilities in Prince Edward Island.
3. The CBA will work with manufacturers to put standardized recycling labels on every LAB sold in Prince Edward Island. The label will direct the consumers to the www.recyclemybattery.ca website.

4.2 Program Accessibility

The majority of consumer lead-acid batteries are replaced at a service station by a technician. Consequently the majority of used lead-acid batteries are generated at the commercial retail locations although some "Do-It-Yourself" consumers, especially in rural parts of Prince Edward Island, may replace their battery and need a "drop-off" location.

The Prince Edward Island collection system for LABs will be based on a reverse distribution program where the CBA members recover the end-of-life LABs at the retail locations that sell their products. These retail locations will also take used batteries from the public that replaced their vehicle battery at their home or farm.

The following sections outline the existing reverse distribution network operated by the members of the CBA to ensure accessibility to the Program in urban and rural parts of Prince Edward Island.

4.2.1 Urban Communities

There are 2 cities and 3 towns in Prince Edward Island that meet the definition of an "Urban" area. An "Urban" area is defined as having a population greater than 1,000 and a density is no fewer than 400 persons per square km².

Currently there are 3 retail facilities that will service the two cities in Prince Edward Island. The public will be encouraged to go to www.recyclemybattery.ca to find the closest consumer drop-off location in the cities.

In addition, there are 4 warehouse operations in New Brunswick and one warehouse in Nova Scotia operated by CBA members that will take the large industrial batteries from Prince Edward Island. The warehouses that take industrial batteries are accessible through www.recyclemybattery.ca/industrial-batteries.

The long-term goal for consumer access is a public drop off location within 30 minutes in urban areas.

4.2.2 Rural Communities

One of the key challenges of any stewardship program is the delivery of recycling facilities in rural areas. Prince Edward Island has 6 towns and 63 communities that will meet the definition of “rural” community.

Currently, the CBA has 4 return collection facilities in rural areas of Prince Edward Island. The CBA will work with the three Counties to determine an adequate level of service for the collection of LABs. The location of the return collection facilities in rural areas will also be published on www.recyclemybattery.ca.

The long-term goal for consumer access is a public drop off location within 45 minutes in rural community.

4.3 Sales and Recovery Rates

For the past three years, the CBA has collected sales and recovery data for lead-acid batteries at the wholesale level from each Province. The following sections summarize the 2013 data reported by CBA members for Prince Edward Island, the Maritime Provinces and Canada. Note that the sales and recovery by Interstate Battery are included in the 2013 CBA’s sales and recovery data for PEI only. Interstate Battery does not report data to the CBA in any other Province.

4.3.1 Sales of Lead-Acid Batteries

The weight of SLI, motive and stationary lead-acid batteries sold in Prince Edward Island by CBA members and Interstate in 2013 is approximately 285,800 kg.

See table below for a breakdown of the reported sales for Prince Edward Island and its comparison to the collated data from the Maritime Provinces (NB, PEI, NS) and Canada.

2013 CBA Data	Prince Edward Island	Maritime Provinces	Canada
SLI Sales (kg)	141,000	5,823,000	131,860,000
SLI Sales (kg/person)	0.972	3.12	3.75
Motive (kg)	129,000	819,650	13,800,000
Stationary (kg)	15,800	269,200	11,530,000

SLI: Starting, Lighting and Ignition – primarily automotive batteries

The 2013 CBA sales data for Prince Edward Island shows lower SLI sales on a per capita basis than the averages for the Maritime Provinces and Canada. The Prince Edward Island per capita sale of SLI batteries is 0.972 kg/person. In contrast, the Canadian and Maritime Province average SLI sales were 3.75 kg/person and 3.12 kg/person respectively and sales for New Brunswick was 10 times higher than PEI at 6.2 kg/person.

The low SLI sales rate in Prince Edward Island and the high sales rate in New Brunswick are due to the wholesale warehouse operations of CBA members are in Moncton and those warehouses provide the distribution of lead-acid batteries to retailers in Prince Edward Island.

Because of the small geographical area of Maritime Provinces and the centralized warehouse operations in Moncton, the aggregate SLI sales of 3.12 kg/person for the Maritime Provinces is considered more representative of the retail sales in Prince Edward Island in 2013.

Note that the 2013 sales data collected by the CBA does not include the sale of vehicles, motor cycles, boats, off-road vehicles. These additional sales will account for 15% of the sales of lead-acid batteries in the Province.

4.3.2 Recovery Rates of Lead-Acid Batteries

The majority of lead-acid batteries are recovered using a reverse-distribution system. CBA members and Interstate drop off new batteries to customers and used lead-acid batteries are picked up and transported back to their warehouse operation for sorting, testing and shipping.

The 2013 recovery rates for lead-acid batteries from Prince Edward Island, the Maritime Provinces and Canada are summarized in the Table below.

2013 CBA Data	Prince Edward Island	Maritime Provinces	Canada
SLI Recovery (kg)	64,700	6,495,000	77,350,000
SLI Recovery (kg/person)	0.446	3.5	2.2
SLI Recovery Rate (%)	46%	112%	59%
Motive Recovery (kg)	0	180,500	3,800,000
Motive Recovery Rate (%)	0%	52.6%	27.5%
Stationary Recovery (kg)	0	0	72,750

The 2013 recovery rate for SLI lead-acid batteries in Prince Edward Island by CBA members and Interstate is about 46%. In contrast, the 2013 recovery rates in New Brunswick and Nova Scotia are 113% and 129% respectively. Again, the businesses in New Brunswick and Nova Scotia are picking up the lead-acid batteries on Prince Edward Island and consolidating the batteries at their warehouses in the other two Maritime Provinces.

The 2013 CBA overall recovery rate for all lead-acid batteries in the three Maritime Provinces was 112%.

In addition, the CBA had embarked on a project with the smelters in Canada to estimate the volume of lead-acid batteries collected outside of the CBA's recycling network. The CBA hopes that this corroborative information will be available starting in 2014.

4.3.3 Fate of Used Lead-Acid Batteries

Virtually all of the components of lead-acid batteries are recycled. The figures below are for the typical SLI lead-acid batteries recovered from Prince Edward Island.

Product	Material	Per Cent of a SLI Battery	Per Cent Recycled
Metals	Lead	52%	99%
	Oxides / Sulphates of Lead	18%	NA
	Other Metals: Calcium Antimony	5-7%	99%
Plastic	Casing	8%	75%
	Separators	4%	0%
Electrolyte	Sulphuric Acid	12.5%	100%
Shipping Materials	Wood Pallets	3%	0%
	Cardboard	1%	0%
	Plastic Wrap	1%	0%

Based on the preliminary information collected from the smelters that recycle lead-acid batteries, the majority of the material recovered in the CBA's Stewardship Program is recycled.

4.4 Generation, Storage and Transportation

4.4.1 Generation, Storage and Transportation

In Prince Edward Island, LABs are considered a Dangerous Good as defined by the Transportation of Dangerous Goods Act and all aspects of that Federal legislation will apply to all shipments of new and used lead-acid batteries on public roads.

In addition, collectors and transporters of batteries within the CBA program will be required to follow the safe handling and transportation guidelines developed by Battery Council International (see Appendix 1) and the Management Program for Recyclable Lead-Acid Batteries for warehouse operations developed by the CBA.

Used lead-acid batteries are transported off Prince Edward Island to warehouses in New Brunswick and Nova Scotia are exempt from the

requirements of Prince Edward Islands Waste Resource Management Regulation – see section 2.1(6). There are no warehouses on Prince Edward Island operated by CBA members.

4.4.2 Training and Education of Recyclers

The recovery, storage and transportation of LABs must be done to all Federal and Provincial standards to ensure environmental and worker safety.

The CBA will support the CBA members' training and education program for return-collection facilities and transporters that collect, store and transport new and used LABs.

4.4.3 Inspection of Recycling Infrastructure

The CBA as part of its ongoing commitment to the environment and worker health and safety will ensure the collection depots, storage facilities and transporters are following the CBA guidelines for the safe collection, storage and transportation of LABs.

Businesses that do not conform to the Federal or Provincial regulations will be removed from the stewardship program for LABs.

4.5 *Operational Efficiency*

The CBA will utilize the reverse distribution system established by its members to recover LABs in urban and rural communities. The CBA members will report sales and collection volumes on a quarterly basis.

Within the first year of the stewardship program, the CBA will work with the three Counties on Prince Edward Island to identify gaps in the rural recovery network.

4.6 *Quality of Service*

To track customer satisfaction, the CBA will integrate into the consumer awareness program an estimate of community and partner satisfaction, number and nature of complaints, number and nature of service disruptions.

The Quality of Service will be reported in the CBA's Annual Report to the Ministry of Environment, Labour and Justice.

4.7 Management Performance

The CBA has established an ambitious stewardship program for Prince Edward Island that is linked into its National Program for lead-acid batteries.

The CBA will publish on its website, its performance measures, long-term goals and annual strategies and actions as well as the historical and current data on those metrics. In addition, the CBA will publish on its website:

- The Stewardship Plan for Prince Edward Island;
- Annual reports to the Ministry of Environment, Labour and Justice;
- Results of its stakeholder consultations and interactions;
- Priorities, goals and targets set by the Board of Directors;
- News and events.

The CBA's Annual Report to the Ministry of Environment, Labour and Justice will include:

- a description of the CBA's educational materials and strategies used in the previous calendar year and changes proposed for the current calendar year;
- the location of the CBA's return collection facilities in urban and rural areas and any changes in the number and location of collection facilities from the previous report and proposed changes in the current calendar year;
- the number of activities and events to recover LABs from remote communities and locations and proposed activities and events for the current calendar year;
- efforts taken by the CBA to reduce environmental impacts throughout the product life cycle and to increase reusability or recyclability of LABs at the end of the product's cycle;
- a description of how the recovered product was managed in accordance with the pollution prevention hierarchy and proposed projects to improve operational efficiency;
- the total amount of the product sold and collected by the CBA members will be used to determine the CBA's Collection rate.

Appendix 1: Battery Council International's Practices for Palletizing Core Lead-Acid Batteries

Procedures

Step 1) The Department of Transportation (DOT) specifies that core batteries are to be stacked on pallets in good condition. A piece of cardboard must be placed on an empty pallet before stacking first layer of core batteries.

Step 2) A piece of cardboard must be placed between each layer and on top. Batteries should not be stacked more than 3 layers high. Each pallet may contain 50-70 core batteries total.

Step 3) Arrange batteries so that terminals do not touch that could lead to a short circuit

Step 4) Load batteries 2 layers high, then shrink wrap. Wrap tightly 3 or 4 times around, making sure to catch top of pallet to help anchor load.

Step 5) Load third layer and place honeycomb cardboard on top. Shrink wrap entire load. Wrap tightly 3 or 4 times around overlapping bottom layers.

NOTE: Full wheel weight buckets and damaged batteries should be stacked in the middle of the top layer of the core pallet.

NOTE: Damaged batteries that are not visibly leaking electrolyte should be placed in strong poly bags and properly closed with an adjustable plastic tie. Bagged batteries must also be properly secured to the pallet.

DO NOT STACK PALLETS OF BATTERIES!

Responsibility of Return Collection Facilities

- Return your core batteries and wheel weights to your battery vendor (do not sell them locally)
- Strip labels off or spray paint the warranty returns and cores to prevent theft
- Cores batteries should be palletized and ready for pick-up prior to the arrival of the truck and broken batteries placed in plastic bags provided by the manufacturer;
- Battery shipments must be tracked;
- Place DNI (Do Not Inventory) tag on top of battery pallets