An All-Battery Collection and Recycling Plan for Manitoba

Submitted to the Pollution Control Branch of *Manitoba Conservation* By:

Rechargeable Battery Recycling Corporation of Canada (RBRCC)

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PLEASE NOTE: THE PLAN AND ALL APPENDICES CAN BE FOUND AT WWW.CALL2RECYCLE.CA.

EXTENDED PRODUCER RESPONSIBILITY PLAN

1.0 EXECUTIVE SUMMARY

This plan has been developed by the Call2Recycle® Program which is operated by the Rechargeable Battery Recycling Corporation ("RBRC") and the Rechargeable Battery Recycling Corporation of Canada ("RBRCC") in response to the Regulation 16/2010 (February 3, 2010) and the final version of the draft Guideline for Household or Prescribed Household Material Stewardship, adding primary and rechargeable batteries to waste management. A stewardship plan is required for primary and rechargeable battery producers (manufacturers, distributors, importers) to show responsibility for the life-cycle management of their products.

RBRCC has been appointed as the agency to meet producer obligations for battery manufacturers, manufacturers whose products contain batteries, and certain distributors and retailers of products as may be appropriate. A list of these stewards can be found in *Appendix 1*. Under this appointment, RBRCC's Call2Recycle® program is charged with collecting dry cell batteries under 5 kilograms.

This plan was developed in collaboration with the battery manufacturing and retail industries, local government representatives, non-profit and environmental groups, other stakeholders and the general public. This plan is also based on meeting the requirements of the Regulation, experience gained in other jurisdictions and a desire for harmonisation with similar programs in other Canadian and U.S. jurisdictions.

In addition, RBRCC accepted written comments submitted by July 9, 2010, and received as part of a public consultation held in Winnipeg on June 21, 2010:

The submitted plan is available for the general public and other interested stakeholders at www.call2recycle.ca/Manitobastewardship.

The results of the consultations, as well as responses to all written input appear in *Appendix 2* of this document.

Main Program Elements
Based on this collective input, the program will be developed as follows:

1.1 Convenient Collection Systems

Actual collection points and methods will be determined through assessment of such matters:

- Proximity to population
- Cost-effectiveness
- Environmental health and safety
- Ease of access
- Facilities available

Collection systems will be designed with user convenience and flexibility in mind.

Major collection methods expected to be used include:

- The Call2Recycle® program offers battery recycling plans for retailers, municipalities, public agencies, and businesses completely free of charge.
- Call2Recycle® provides all collection containers and collateral materials, and pays all shipping, sorting and recycling costs, so there is ***no cost to the public or collection sites to participate.***

1.2 Processing and Recycling

- The program will not ship any used batteries or cell phones to a processor that has not been qualified by Call2Recycle®. Work to qualify potential processors by Call2Recycle® is ongoing to ensure competitive pricing and changes in capacity. Processors will be selected through a competitive process that will require compliance with applicable environmental, health and safety and transportation regulations including (but not limited to) the following:
    - Basel Action Network (BAN) qualification and ISO certification
    - Final destination receipt and disposal documentation/certification, downstream processing material management, residual material management and residual waste management.
    - Recycling processor standards as adopted by the Electronic Stewardship Association of Canada (ESAC)

- Retailers, businesses, municipalities, and public agencies will send the collected batteries and cell phones to a recycling facility for processing. Participation as a collection location is purely voluntary. A thermal recovery process will reclaim the metals (nickel, iron, cadmium, lead, and cobalt) from the batteries and prepare them for use in new products such as new batteries and stainless steel. No battery waste will be disposed outside of North America.

1.3 Public Awareness and Education

The public awareness program will include all identified audiences with messages that, among other topics, will cover:

- The importance of battery collection and recycling
- Identification of materials covered by the program
- Where to take materials
- Where to get additional information
- Disposition of recycled material

Call2Recycle® conducts a national public education campaign to generate awareness and enlist support of the Call2Recycle® program. Through public service announcements, national advertising, and tradeshows, Call2Recycle®'s message reaches a diverse audience.

1.4 Accountability and Transparency

RBRCC is a non-profit, public service organization dedicated to rechargeable battery and cell phone recycling in Canada. It is a wholly owned subsidiary of the Rechargeable Battery Recycling Corporation (RBRC). RBRC's financial statements are audited by an independent CPA firm annually to ensure that fees collected have been applied to recycling and public education program costs in both the USA and Canada.

RBRCC long has employed, and as part of the RBRCC plan in Manitoba will continue to employ, several different audit procedures to assure compliance with required laws and regulations and general efficiency, including:

- Compliance with all local, provincial and federal regulatory agencies
- Independent 3rd party verification of program accomplishments
- Periodic environmental audits of its recycling facilities
- Certificates of recycling to program participants requiring documentation
- Basel Action Network (BAN) qualification for all processors of batteries

1.5 Financing Mechanism

The Call2Recycle® program has been financed by rechargeable battery and product manufacturers (whose products are powered by rechargeable batteries) in Canada for approximately a dozen years. A licensee fee is assessed for units and weights sold into North America. In Manitoba, financial support also will be provided by primary battery manufacturers using a cost plus reimbursement budget allocated to each manufacturer based on its market share. For a list of companies financing the program, please go to *Appendix 1*.

This plan does not require or speak to any charges that a retailer may or may not choose to impose on consumers to supplement the price of its products. In other words, there is no environmental handling fee required, proposed or prohibited in this plan. Participation in this plan is free and voluntary to those collecting and returning batteries.

2.0 PROGRAM PRINCIPLES

A stewardship program will be introduced which will:

- Be consistent with the Canadian Council of Ministers of the Environment Canada-Wide Principles for Product Stewardship (CCME Principles) including harmonisation with other Canadian provinces. (www.ccme.ca/assets/pdf/eps_principles_e.pdf)
- Be consistent with the draft Guideline for Household or Prescribed Household Material Stewardship
- Provide a level playing field and, in the longer term, provide the necessary research and development process to explore and define how environmentally responsible producers might be rewarded in the market place
- Achieve a high level of compliance and minimize the potential for free-riding product manufacturers
- Ensure the program is delivered with the lowest possible cost while achieving maximum environmental efficiency

- Ensure materials are processed and recycled in a responsible manner that safeguards the environment and worker health & safety as well as preventing illegal export to developing countries.
- Establish a dispute resolution process to resolve issues between parties involved in battery collection, sorting and recycling under this program.
- Ensure the program reflects a shared responsibility model with appropriate roles for the provincial government, local government, consumers, industry, and other stakeholders
- Ensure the program provides adequate coverage to all areas of the province.
- Strive for continuous improvement in environmental and economic performance.

3.0 ORGANIZATION STRUCTURE AND MANAGEMENT

RBRCC is a not-for-profit corporation organized under Ontario law. It has operated the Call2Recycle® program in Manitoba since 1997. The Call2Recycle® program has collected used rechargeable batteries and used cell phones. With the approval of this plan in Manitoba, the Call2Recycle® program in the Province will be expanded to also include used primary batteries.

RBRCC operates under the direction of a Board of Directors. With the expansion of the Call2Recycle® in several Provinces to cover primary batteries, it has established a Board that includes the President of RBRCC and representatives of rechargeable battery manufacturers, rechargeable product manufacturers, nonrechargeable battery manufacturers, and selected outside members based on expertise and experience.

This Board also oversees the operations of all-battery collection and recycling programs initiated elsewhere in Canada and serves as a mechanism to strive for hamonisation across programs. Harmonisation will help to keep collection and processing costs down, while enabling clear and compelling communications to all stakeholders.

3.1 Management and Administration

RBRCC is responsible for the management and administration of the program. This includes, but is not limited to, the following tasks:

- Management of the public consultation process required for the stewardship plan.
- Identification, registration, and auditing of obligated stewards.
- Collection and disbursement of fees through a process which ensures confidentiality of data.
- Management of program communications.
- An interface for the public and with parties contracted under the program.
- Preparing and distributing an annual report
- Defining and meeting the performance management targets for the program, including the plan for continuous improvement.
- Overall day-to-day management of the program, including liaison with other stakeholders and the Manitoba provincial government
- Ensuring compliance with all applicable federal, provincial and municipal requirements.
- Management of contracts with the collection, sorting, processing and recycling service provider(s) and the audit functions.
- Setting and adhering to operating budgets.

4.0 PUBLIC EDUCATION AND AWARENESS

Call2Recycle® has an extensive public education program designed to both encourage all Manitobans to recycle their used batteries and inform them how they can participate in our recycling program. This will provide the foundation for the promotion, education and awareness activities of the Call2Recycle® program in Manitoba.

Batteries are commonly used at home, work and play. Therefore, all aspects of Manitoba society are considered part of the communication outreach strategy for the existing and expanded Call2Recycle® program.

Building on our existing program's dynamics, our target groups will be categorized along the following dimensions:

- Program licensees (the approximately 175 companies that currently fund the RBRCC) and product stewards (6 primary battery companies that have committed to date to participate in this program) which are listed in *Appendix 1*.
- Collection sites (retail, municipality, public agency and business participants).
- Battery users (residents, business, and community locations such as schools).
- Media (industry- and consumer-focused).

In 2011, Call2Recycle® will invest approximately $100,000 for Manitoba outreach and promotion activities which will result in anticipated collections of 60,000 kilograms.

At the core of the Call2Recycle® public education program is the focus on information accessibility. This is accomplished through both electronic services and staff availability.

RBRCC maintains (and will continue to maintain) two websites (English: www.call2recycle.ca; French: www.appelarecycler.ca;) and two toll-free information lines: 877-2-RECYCLE (recorded) and 888-224-9764 (staff monitored). The websites provide comprehensive program information of relevance to all interests/support groups: retail, municipality, public agency, business, consumer, and media. Program participants (both existing and potential) as well as consumers can access information about the location of nearby collection sites, extensive details on the operational dynamics of the Call2Recycle® program as well as sign-up guides for retailers, municipalities, public agencies and businesses. These guides provide a registration application and detail recycling guidelines, including storage, safety, packing and shipping (for both Call2Recycle® boxes and non-Call2Recycle® containers). Program participants can also download support materials such as web banners, signage, and other communication support materials from Call2Recycle®'s website. Upon approval of the Call2Recycle® program in the Province, Manitoba-specific information will be added to these information sources.

In addition to the information provided on Call2Recycle®'s website, awareness of the Call2Recycle® "all battery" program will be promoted in many ways and through a variety of mediums.

For years, Call2Recycle® has maintained and increased the involvement of program participants, and this effort will continue. Support initiatives involve direct phone calls, postcard mailings and updates on collection results, all designed to inform and remind existing collection sites of their vital roles. In-store/organization signage is and will continue to be provided with collection box

shipments. Upon approval of the Call2Recycle® "all battery" program, this signage will be updated to promote an all battery collection and acknowledge Manitoba's leadership role in this initiative.

Call2Recycle® purchases advertising space in select publications such as *Harrowsmith*, *Municipal World, Solid Waste & Recycling, Hazardous Materials Management, PhotoLife* and *Canadian Home Workshop/Mon Chalet,* and this will continue upon approval of the Call2Recycle® "all battery" program. The directness of our communication message will be even more pronounced once Call2Recycle® expands to all battery recycling program.

Supplementing purchased advertising will be the distribution and airing of a series of radio and television Public Service Announcements (PSAs) encouraging battery recycling. RBRCC will cooperate with the Conservation Manitoba in preparing new PSAs upon approval of the Call2Recycle® "all battery" program.

Presence at targeted consumer and trade shows are additional components of Call2Recycle®'s outreach campaign. In 2009/2010, Call2Recycle® has exhibited at *Canada Blooms, Federation of Canadian Municipalities, SWANA Northern Lights Conference*, and this type of outreach will continue. At these shows, Call2Recycle® answers inquiries and provides handout materials to support awareness and drive program participation. In addition, Call2Recycle® has established a partnership with home improvement expert Shell Busey and his *HouseSmart Referral Network* to promote battery recycling through radio, print, electronic media and appearance schedules. A series of "how to" info-videos also have been developed, tied in with Call2Recycle's battery recycling for distribution electronically and in Public Service Announcements.

Call2Recycle® expects to continue for at least the near future as a prime sponsor of the *Old Timers' Hockey Tour* to outreach in communities across Manitoba and Canada. During winter 2009, Call2Recycle®'s tour sponsorship involved a specific event in Winnipeg. Call2Recycle®'s in-game presence is significant as evidenced through postcard handouts, PSA airings, arena announcements and interviews, rink board advertising, program advertising and the sponsorship of the *Hockey Tykes*.

The inclusion of primary batteries in our already well-established battery recycling program provides an excellent opportunity to improve the simplicity of our recycling message and program, streamlining the communication from a "rechargeable batteries" focus to "recycle batteries". Our already extensive roster of communication vehicles and forums will be able to incorporate this streamlined and heightened message right from the program's outset, enabling us to invigorate our collection partners to deliver exponential program growth and collection results.

The specific communication outreach objectives and strategies by target group are and will continue to be as follows:

a. Program Licensees / Product Stewards

Objectives

- To encourage RBRCC Licensees / Stewards to inform their sales base and target groups to recycle the battery post use and how this can be done.

- To involve RBRCC Licensees / Stewards in our recycling program at their place of business.

Strategies

- RBRCC Licensees generally must include the RBRCC Recycling Seal on their products within 6 months of program sign-up and will be encouraged to include the expansion of the program in Manitoba in their promotional activities and advertising. RBRCC Stewards will similarly be urged to promote their participation in this program in Manitoba within 6 months of program introduction.
- Specific section on websites: www.call2recycle.ca developed for Licensee training and program information.
- Toll-free information line (1-888-224-9764) to access support staff for inquiries and supply requirements/replenishment.
- Continued issuance of annual report, as well as yearly update reviews with RBRCC Licensees and product stewards regarding recycling performance and program outreach advances.
- RBRCC to host industry training meeting concerning the expansion of the Call2Recycle® program, key participation requirements and in-house participation
- Individual phone calls to RBRCC Licensees/Key Contact by Company within 2 months of program implementation to reinforce program requirements and encourage in-house participation.
- All battery program successes will be highlighted in Call2Recycle®'s Monthly e-newsletter distributed to Licensees and program participants.

b. Collection Sites

Objectives

- To inform existing Call2Recycle® collection sites about the expansion of the program, and reinforce their roles and responsibilities within the program
- To secure additional collection sites within retail, business, municipality, public agency, and community locations

Strategies

- Detailed instructions are provided in the sign-up guide advising of overall Call2Recycle® program and the steps involved in collecting and shipping Call2Recycle® containers for recycling
- Specific section on websites: www.call2recycle.ca developed for collection site training and program information
- Toll-free information line (1-888-224-9764) to access support staff for inquiries and supply requirements/replenishment
- Series of correspondence and phone calls to existing Call2Recycle® sites (approximately 160) to inform and remind them of their program participation and responsibilities
- Re-designed Call2Recycle® collection containers to accommodate and inform about expanded battery chemistry collection.
- Adjustments to existing sign-up guides to reflect expanded chemistry.
- Training video development for participants explaining program dynamics and outreach requirements.

- Distribution of posters in collection containers for use in-store/at work to promote recycling program and participation details.
- Presence at trade shows via presentation as well as exhibits to announce expansion and encourage added participation.
- Semi-annual updates on individual site location collection results, including suggestions for further collection gains.
- Advertising in select trade publications (retail, business, public agencies) to build awareness and participation.
- Dedicated sections on www.call2recycle.ca for program information and training as well as availability of pre-developed communications materials that can be customized for individual needs.
- Ongoing phone calls and postcard mailings to program participants to confirm program delivery and participation
- All battery program successes will be highlighted in Call2Recycle® Monthly e-newsletter distributed to program participants.
- Development and implementation of co-promotion opportunities with collection partners to promote their involvement and the availability of battery recycling at their site.

c. Battery and Mobile Phone Users

Objectives

- To inform and encourage all battery and cell phone users to recycle their used product

Strategies

- Licensee/steward-developed communication with product sale explaining the need to recycle their battery post-use
- Use of www.call2recycle.ca including a Postal Code-driven locator to inform of nearby collection drop-off locations
- Availability of bilingual toll-free 1-877-2-RECYCLE to inform of participating retail drop-off locations
- Articles and ongoing press releases advising of specific collection initiatives and events as well as the "for more information" vehicles: www.call2recycle.ca/,www.appelarecycler.ca and 1-877-2-RECYCLE
- Development and implementation of location-specific and provincial events (e.g. *Battery Recycling Week*) to encourage battery "round-ups" and ongoing participation.
- Release of Public Service Announcements (PSAs) and targeted advertising campaigns to inform and encourage battery recycling
- Partnership with *Old Timers' Hockey* and *Kids Help Phone*, specific events and Manitoba-specific tours to highlight battery recycling

d. Media

Objectives

- To raise awareness of the dynamics of our collection and recycling program for used batteries and cell phones

Strategies

- Monthly press releases advising of initiatives and recycling successes
- Distribution of contributed articles for community newspapers
- Dedicated media newsroom on www.call2recycle.ca featuring background information, photos and other relevant support materials to assist in media coverage
- Development of newsworthy location-specific and provincial events/ announcements
- Leverage social media (e.g. Facebook) outlets to educate and promote program events and support.
- All battery program launch media event to announce program expansion

Program Support Vehicles/Tactics

In addition to the specifics identified above, Call2Recycle® works with government agencies to communicate and support our collection program. Building on 13-years of Manitoba and Canadian experience, these recognized examples of comprehensive marketing campaigns, involving both grassroots and consumer-oriented efforts, will be the foundation of the expansion of our all battery recycling focus. RBRCC and Call2Recycle® look forward to working with the Pollution Prevention Branch of Manitoba Conservation to further develop these materials and take advantage of joint communication opportunities.

The program will periodically evaluate public awareness of the program and report on its results. RBRCC uses the Call2Recycle® brand as the primary means to communicate with its stakeholders. In this regard, RBRCC annually measures the awareness of this brand and its ability to communicate appropriate behaviours and actions. Baseline data was compiled in 2010 and will be updated annually to gauge increases in overall awareness and to establish / report on awareness in Manitoba.

Call2Recycle® also quarterly assesses the accessibility of its collection sites, which is a critical dimension in maximizing collection. By comparing collection sites with demographics of the Manitoba population, Call2Recycle® can identify underserved areas and populations. In this regard, while Call2Recycle®'s current 160 collection locations serve as an effective foundation for this program, Call2Recycle® anticipates significant growth in sites, particularly during the first few years of implementation of an all-battery plan, with the target of reaching 2000 sites within 5 years.

5.0 COLLECTION, PROCESSING AND RECYCLING

Retailers, businesses, communities and public agencies send the collected batteries and cell phones to a recycling facility for processing. A thermal recovery process reclaims the metals (nickel, iron, cadmium, lead, and cobalt) from the batteries and prepares them for use in new products such as new batteries and stainless steel. Cell phones are refurbished and resold when possible. All rechargeable batteries from cell phones are recycled. A portion of the proceeds received from the resale of phones benefits selected charities.

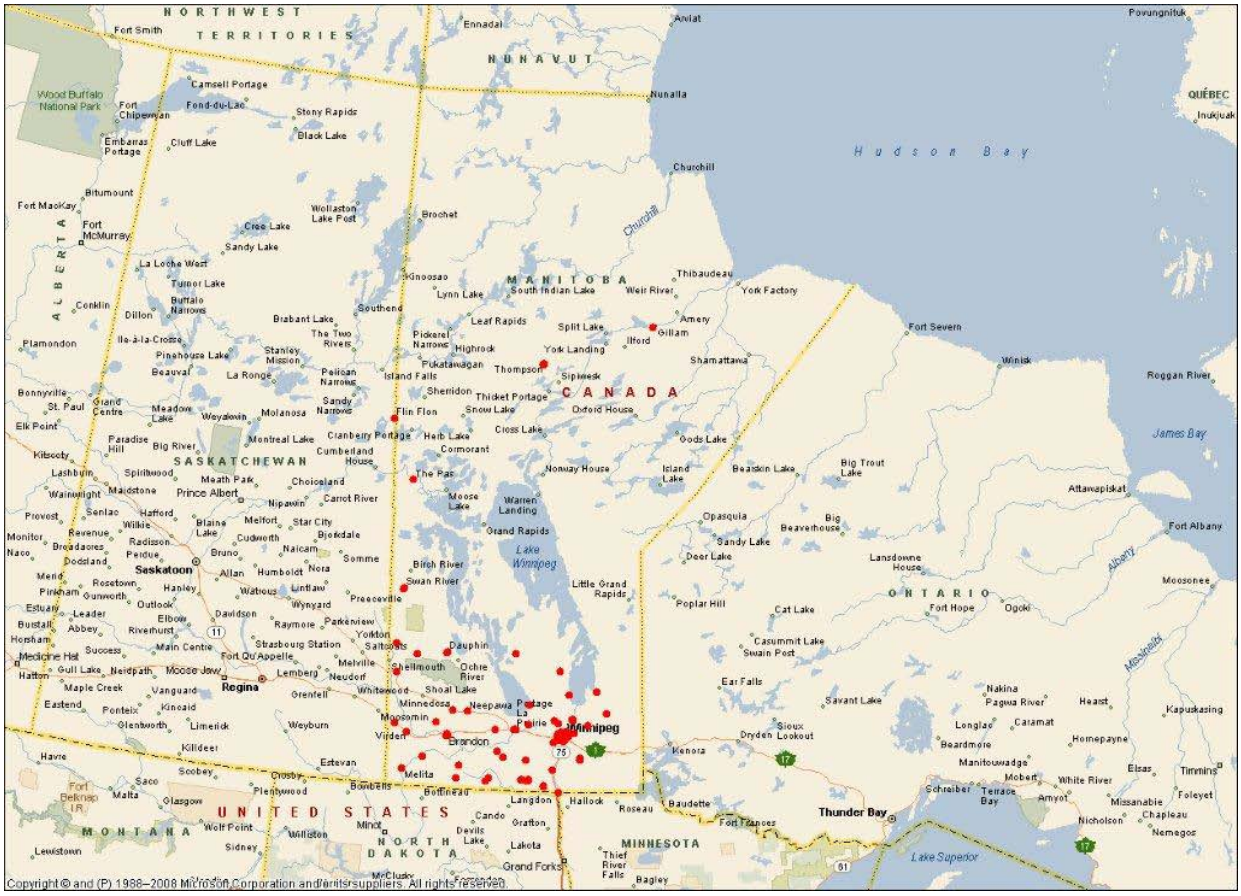
5.1 Collection

The Call2Recycle® Manitoba Plan will build upon and expand Call2Recycle®'s existing approximately 160 collection locations. These and future sites implement and will implement one or more of the following programs, all of which impose no charges to the collection site participant or used battery generators:

- *Retail Recycling Plan*: This program, a principal focus of the Call2Recycle® education program, aims at reaching consumers through retailers who sell batteries and battery-powered products. Participating retailers who serve Manitoba include Canadian Tire, Future Shop, The Home Depot, London Drugs, Makita Factory Service Centers, Personal Edge/Centre de Rasoir, and The Source, Sears, Sony Style and Zellers. In addition to these national retail chains, however, the Call2Recycle® program is available to independent retail stores and regional retail chains. The full listing of Manitoba retail sites that have signed up with the Call2Recycle® program can be found at www.call2recycle.ca.
- *Community & Public Agency Recycling Plan*: The Community and Public Agency Recycling Plan are targeted to municipalities, communities, public agencies (such as hospitals, police and fire departments), institutions and government agencies. Included among the many collection initiatives for communities and public agencies are curbside collection, special waste collection events and household recycling centre collection.
- *Business Recycling Plan:* The Business Recycling Plan helps structure and manages the collection of qualified non-household batteries in the workplace, including bar code readers, laptop computers, two-way radios, cordless power tools, portable printers and PDAs. Approximately 80 businesses in Manitoba are currently participating in the Call2Recycle® program.

The scope of collection locations indicated below may be significantly affected by the Conservation Manitoba's ultimate interpretation of what constitutes a hazardous waste collection site.

Manitoba Collection Sites (As of May 1, 2010)



The Call2Recycle® Manitoba plan will expand this existing collection base using both RBRCC's existing resources and the additional contacts that will arise by virtue of its new support from non-rechargeable battery and cell phone producers. Participating as a collection location is purely voluntary for all organizations and companies. It is important to note that RBRCC operates in both official languages, with all-inclusive support from customer service to the full array of communication and support material.

The expansion of Manitoba's e-waste collection program also should contribute to increased battery collection locations by RBRCC in the province. RBRCC has well established working partnership with e-waste recyclers across the province, from which it already accepts rechargeable batteries through the Call2Recycle® program. This relationship will be further intensified to ensure that all batteries collected through e-waste initiatives are channeled in the Call2Recycle® program for recycling. Any e-waste depots or other battery collection and recycling processors who are not Call2Recycle® participants / partners will be asked to provide their collection data for inclusion in RBRCC's annual report of overall battery collection results in Manitoba.

To become a collection site, interested program participants are provided instructions and required to complete a sign-up application form. Upon completion of the application, each new participant is then assigned a unique identification number. These numbers, like those assigned to existing participants ('sites"), allow tracking of all materials assigned and returned by the site. The site will then receive collection boxes (including plastic bags in which to place the individual battery to ensure safe storage and shipping as well as the "site I.D." marked on the box along with a pre-paid/pre-addressed return label), posters and safety/handling instructions to begin their collection initiative.

The collection containers, made of corrugated cardboard with 92% post-consumer / 8% pre-consumer recycled content, are currently and will continue to be available in two sizes: one capable of holding approximately 9 kilograms of batteries (primarily used for collection at retail) and the other capable of holding approximately 18 kilograms (primarily used with higher quantity generators such as municipalities and business). These materials, along with transportation and recycling services, are and will be provided free-of-charge.

Larger quantity generators also have and will continue to have the option to utilize their own shipping containers, utilizing pre-approved labeling and adhering to the same preparation requirements (i.e. use of plastic bags to contain each collected battery) as per the Call2Recycle® collection containers. Bulk containers are preferred by Call2Recycle® as a more cost-effective means of collection, sorting and transportation. For those Call2Recycle® municipal collection locations that generate at least 150 kilograms of batteries per shipment, RBRCC will negotiate a fee to support the municipalities' costs for sorting, packaging and handling material.

Adherence to transportation and safety guidelines for battery collection is an ongoing priority within the Call2Recycle® program. All personnel handling Call2Recycle® collection containers must be instructed to read the preparation and shipping instructions for proper battery collection as well as watch Call2Recycle®'s safety training video. This video can be viewed online at http://www.rbrc.org/safety/safety_video.html.

When a used battery or cell phone is turned in for recycling, each is to be placed and sealed in an individual plastic bag provided by Call2Recycle®. Bags are used to comply with Federal transport laws in Canada which require that certain types of primary and rechargeable batteries be insulated from possible electrical short circuit during transport (excerpts from regulations of relevance include: *the cells are separated to prevent short circuits*; *These dangerous goods may be handled, offered for transport or transported under this shipping name if the dangerous goods are (a) protected from short circuits. . . .)* If bags are not available, Call2Recycle® also allows the use of non-conductive electrical tape to cover the battery terminals.

Once the collection container is filled and adherence to the "one battery/cell phone – one bag" preparation standard is confirmed, the assigned person responsible for the Call2Recycle® program at the collection site must write his/her address on the shipping label and securely seal the box when full. He or she must then call Purolator Canada, Call2Recycle®'s shipping service, or just include in his/her outgoing Purolator pick-up services. The pre-paid, pre-addressed container is then scanned by Purolator and, as of the time of this submittal, delivered to Newalta (Fort Erie, ON) where the content of the containers are sorted according to battery chemistry, weights recorded and readied for shipping to the designated-according-to-chemistry recycling processor. Newalta is assigned the management of shipping documentation and any manifesting of shipments to the final recycling destination. This destination may change depending on the outcome of identifying and selecting a processor and sorting capability.

The current Call2Recycle® program operates, and will operate, in accordance with intra- and inter-provincial shipping and transportation approvals provided by Transport Canada, the Pollution Prevention Brand of Manitoba Conservation and all other provincial environment and transportation ministry approvals. All shipments that are transported internationally are manifested in compliance with the Basel Convention and ISO standards.

5.2 Processing and Recycling

The constituents of all of the used batteries and cellular phones collected through the Call2Recycle® program and RBRCC Manitoba plan are and will be reclaimed. However, different battery chemistries and phones require different reclamation methods. Therefore, RBRCC utilizes and will continue to utilize several service providers.

Unsorted used batteries (and used cell phones) collected under the Call2Recycle® program are sent, as of the time of this submittal, to Newalta Services in Fort Erie, Ontario for sorting. Newalta has been providing sorting services for Call2Recycle® since 1997 and has an exemplary record. Call2Recycle® will investigate another sorting location in Western Canada as battery volumes grow. From Newalta, sorted materials will be sent to licensed and well-operated commercial reclamation facilities in Canada, the U.S and Europe. Nickel-containing batteries will be processed at Inmetco's facility, Ellwood City, Pennsylvania facility; lead-containing batteries will be sent to Nova Pb in Ville Ste-Catherine, Quebec, Ontario; Lithium Ion batteries will be sent to Xstrata in Sudbury, Ontario and non-rechargeable batteries will be sent to a yet to be determined processor.

Sorted alkaline batteries may be sent in bulk directly to a recycling center. Details on this arrangement are in development and will be in place by time of launch.

All of these facilities use thermal recovery processes to reclaim materials. Recovered metal materials include: nickel, iron, lead, cadmium and cobalt. These metals are either returned to rechargeable battery manufacturers or used to make other products such as stainless steel. Some processes also recover plastic and other constituents.

To expand their existing extensive recycling network, Call2Recycle® has issued a Request for Proposal (RFP) to potential primary battery processors and sorters who will bid on fulfilling services in the future. All providers will be held to the same standards of environmental and efficiency excellence as demanded from existing service providers.

6.0 PERFORMANCE MEASURES

In the past three years, Call2Recycle® has collected 18,354 kilograms of batteries in Manitoba, with 7004 kilograms collected in 2009.

Here is a summary of Manitoba battery collections of the Call2Recycle® program (in kilograms) in the last three full years:

	2009	**2008**	**2007**
Ni-Cd	4013	4667	3680
Ni-Mh	997	630	369
Li-Ion	1087	552	187
SSLA	907	763	502
Primary	811	500	251
Total	**7004**	**6612**	**4738**

Call2Recycle® measures its performance both on the amount it collects and the amount reclaimed from each battery that can be used in secondary products. The program abides by the European Union Battery Directive (see below) on "Recycling Efficiency" in both how to calculate these rates and also what benchmarks for recovery are appropriate based on battery chemistry.

Call2Recycle® Recycling* Rates

Battery Chemistry	Recovery Rates
Primary Alkaline	50%
Small Sealed Lead Acid (SSLA/Pb)	65%
Nickel Cadmium	75%
Other Rechargeables	50%

** "**Recycling**" rate in this context refers to the weight of each battery reclaimed for use in a secondary product. This is sometimes referred to as "**recovery rate**" or, in the EU, the "**Recycling Efficiency**".*

Calculating the amount of batteries collected as a percentage of the batteries sold is often highly problematic for two reasons. First, batteries are often sold through a complex sales chain, from manufacturer to battery-powered product manufacturer to wholesaler to distributor to retailer.

Most battery stewards can only estimate sales into Manitoba. Second, depending on the chemistry of the battery, as many as 95% of batteries are sold in or with a product, further complicating tracking, disposal and recycling.

Below represents the best faith estimate of the amount (by weight) of batteries sold into Manitoba and the target collection rate[1] for the Call2Recycle® program:

Call2Recycle® Collection Targets
(Weights in Kilograms)

Batteries Sold / Collected	Base Year*	2011	2012	2013	2014	2015
Batteries Sold Into Manitoba**	542,000	553,000	564,000	575,000	586,500	598,000
Primary Batteries Collected***	800	51,100	72,000	88,000	104,500	127,000
Secondary Batteries Collected***	7,000	9,000	12,500	15,500	18,500	22,500
Total Collected	7,800	60,500	84,500	103,500	123,000	149,500
Collection Rate Targets						
Primary Batteries	NA	11%	15%	18%	21%	25%
Secondary Batteries	8.5%	11%	15%	18%	21%	25%
Total Collection Rate	1%	11%	15%	18%	21%	25%
Grams Collected Per Capita	7	50	69	85	101	123

** Assumes that program years, including based year, runs from January 1 – December 31.*
*** "**Batteries Sold into Manitoba**" represents estimates developed by battery industry representatives and is based on total Canadian battery sales allocated by provincial population. Years 2011-2015 assume an annual increase in sales of 2%. Upon launch, more accurate baseline information will be used based upon collection of sales data from battery stewards.*
**** "**Batteries Collected**" will be reported by major chemistry and will not simply be reported as "**primary**" and "**secondary**". Targets for collections of subcategories of batteries would be too speculative at this time.*

There are no available estimates on primary batteries currently collected in Manitoba. Many programs collect primary batteries and there is no central source for this information.

Call2Recycle® will reassess plan design and targets compared with actual sales after two years of program operation to ensure that targets are realistic and program design is sufficiently robust.

Over the next 3 years, Call2Recycle® will conduct a study on how and if the non-recycle batteries are disposed at end of life in the marketplace and include the results of this study in its annual report to the Ministry at the end of the 2013 performance year.

[1] "***Collection Rate***" used throughout this document is synonymous with the term "***Recovery Rate***", that is, the batteries collected for recycling in the market divided by the number available for collection (expressed as a percentage).

While sales and collection targets listed above are only broken down into "primary" and "rechargeable" categories, actual collections will be reported to the Ministry by major chemistry. These major chemistries are listed in section 8.0. For the purposes of this plan, it was not meaningful to create overall targets by specific chemistries given the dynamic nature of the marketplace.

The above numbers include batteries that are in electronic products covered by Manitoba to fulfill provincial regulatory requirements. As more stewardship organizations are designated to handle product that contain and / or use batteries, Call2Recycle® is prepared and committed to working with them to the safe, effective and efficient end-of-life disposal of these batteries.

6.1 CONTINUOUS IMPROVEMENT

RBRCC, in conjunction with RBRC, analyzes numerous metrics to determine more effective methods of increasing participation in the Call2Recycle® program. RBRCC measures the amount of designated waste recycled by weight. RBRCC collects weight data on a monthly basis and compares the amount collected with previous months and years. RBRCC then calculates a Manitoba diversion rate. All these practices will be continued as part of the RBRCC Manitoba plan.

RBRCC also employs sophisticated tracking and reporting software that allows for the preparation of various reports pertinent to the Call2Recycle® plan and reporting requirements.

The reporting capabilities allow RBRCC to generate reports with unique and detailed data such as:

- By City, Region, postal code, and overall Province
- By individual site
- By day/month/year or any other required time period
- Retail store or chain
- By collection channel
- By weight and containers received
- By battery type (chemistry)
- Comparative analysis including participation rates

Call2Recycle® also expects to report on collection information on a per capita basis. The annual report will also track the program's performance, particularly in regards to materials reclaimed from end-of-life battery disposal, compared with the pollution prevention hierarchy.

RBRCC will continue to directly communicate with individual collection sites regarding their activities by tracking monthly totals of rechargeable batteries and cellular phones collected, RBRCC can use targeted outreach efforts to increase collections and participation rates at individual collection sites or areas.

Historically, RBRCC's strategic planning has been grounded on facts obtained through consumer awareness surveys. These marketing plans were developed partly by segmenting consumers with similar recycling characteristics to better disseminate Call2Recycle® 's message. For instance, in a recent analysis, consumer segments included heavy use recyclers, light use but dedicated, hoarders, reforming heavy users, abashed trashers, unabashed trashers, those who didn't care and those with no occasion to recycle. This analysis helped RBRCC create more effective promotional materials and

thus increase participation among consumers. Analogous efforts will continue in support of the ongoing success of the Call2Recycle® Manitoba plan.

Furthermore, in keeping with the *continuous improvement* mandate established from the beginning of the Call2Recycle® program's implementation, Call2Recycle® Manitoba staff will monitor results on a monthly, quarterly and annual basis. In addition to quantitative performance indicators such as site participation and collected tonnage, this will allow success to be measured according to website visits, media impressions and targeted surveys.

Finally, RBRCC has long required vendors to meet rigorous qualification standards for collection and processing of batteries. These will continue to be used as part of the Call2Recycle® Manitoba Plan.

Continuous improvement is fundamental to the current and future success of Call2Recycle®. As such, ongoing investment in research and development to enhance our collection and recycling infrastructure has been essential.

To ensure continued leadership in learning and program effectiveness, RBRCC and its parent RBRC participate in an extensive number of initiatives to coordinate and develop best practices with analogous battery and cell phone organizations operating around the world, such as RECHARGE in Europe and PRBA in the U.S. In addition, RBRCC and RBRC support and cooperate in research and development programs seeking better mechanisms to recycle rechargeable and primary batteries. Most recently, through the American Recovery and Reinvestment Act of 2009 (the "Stimulus Act"), RBRC has been included in two applications that have been filed with the U.S. Department of Energy to improve the recycling of lithium ion and primary batteries.

Industry-wide investments are further supplemented by individual R&D initiatives spearheaded by our battery stewards, all of whom also support the Call2Recycle® Manitoba plan and collection/recycling network. In addition to processing and efficiency improvements, RBRC/RBRCC annually invests to improve marketing outreach and communication programs to maximize collections.

To do this, we have implemented and will continue to implement a number of initiatives to sharpen our message:

6.1.1 Collection Infrastructure

Through research and development, RBRC/RBRCC periodically assesses the program offerings, including collection boxes, plastic bags, shipping guidelines, and informational materials. When the Call2Recycle® Manitoba plan is expanded, research and development will remain an important element, including the investigation of a collection box redesign to improve safety and transportation requirements.

6.1.2 *Brand Awareness*

To better understand driving forces behind consumers' "green" practices and attitudes, and to determine consumer recycling habits in general, Call2Recycle® has been tracking consumers' attitudes and practices for the past three years. The information gained from these surveys is distributed to media outlets and participants, and gives Call2Recycle® an opportunity to further spread the word about battery recycling.

Additionally, program awareness will be tracked among key audiences, including Retail Partners, Collection Site Managers, Key Opinion Leaders, and Green Business Executives. A brand awareness study performed among US and Canada audiences, will explore the current awareness and perception of the Call2Recycle® program, the importance of recycling, environmentalism and sustainability and how it impacts their organization, the relative importance of battery recycling within their activities (including awareness of the difference between rechargeable and regular batteries), and attitudes and motivation for environmental activities (including revenue opportunities). The brand awareness study will provide a reliable and actionable baseline measure and tracking measurement for Call2Recycle® 's branding efforts. This study is currently scheduled to be conducted in 2010 and again in 2011; however, may be expanded upon acceptance of the proposed Call2Recycle® plan.

RBRC/RBRCC is undergoing a brand enhancement project to establish Call2Recycle® as its primary brand identifier by associating itself with environmental stewardship and "doing the right thing" in the broader sustainability sense. To do this, a branding effort is being developed to identify batteries and their environmental characteristics within the larger context of sustainability. Call2Recycle® will reposition itself to be synonymous with environmental stewardship by serving as the best mechanism for battery manufacturers (as well as consumers) to fulfill their product stewardship responsibilities. Through this branding project, the Call2Recycle® brand will serve the goal of unifying its purpose, mindset and mission.

6.1.3 *Program Efficiencies*

On behalf of RBRC, the Product Stewardship Institute (PSI) has developed a set of metrics for assessing the performance of programs that collect and recycle primary and rechargeable batteries that policy makers, program participants, and other stakeholders can use to evaluate and strengthen battery collection initiatives. Through this study, Call2Recycle® gained even further insight into performance-based metrics that will help supplement measures of the number of batteries collected, or a collection rate that is based on the number of batteries available for collection.

Additionally, RBRC commissioned a research study to gain information on the market shares of key companies in the portable rechargeable battery market in the U.S. and Canada. Included in this study is also an estimate on the number of batteries sold separately versus those sold in products. The results from this study will assist RBRC/RBRCC in understanding the landscape of the primary players and the collection potential in both the U.S. and Canada.

6.1.4 *Processing*

Pursuing the automation of sorting process for collected batteries will significantly improve the efficiencies of the battery recycling infrastructure. This initiative in addition to other continuous improvement opportunities will form the foundation of ongoing R&D initiatives for RBRCC.

Call2Recycle® commits to continuous research and development efforts over the next several years. Some of the important areas of inquiry will include: logistics

infrastructure necessary to handle an increasing breadth of product and materials; consumer behavior towards disposing electronics with batteries compared with just batteries; and, life cycle assessment of battery recycling. Results of this investment will be annually reported to the Manitoba Ministry and available to the public.

The battery industry believes in continuous improvement in broader life cycle management of its products, examples of which will be highlighted in the Call2Recycle's annual report.

7.0 PROGRAM SCHEDULE – MILESTONE DATES

- Public Consultation: Winnipeg, June 21, 2010 (also was available via webcast). Attendees, and questions and answers raised during and subsequent to the consultation can be found in *Appendix 2*.

- Final submission of the stewardship plan to the Ministry of Environment: August 1, 2010

- Program Launch: April 1, 2011

8.0 PROGRAM INCLUDED AT STARTUP

The program will commence with the list of products required by the regulation:

- Batteries eligible for collection and recycling are those weighing less than 11 lbs/5 kg each of the following chemistries:
  - **Nickel Cadmium (Ni-Cd)**
  - **Nickel Metal Hydride (Ni-MH)**
  - **Lithium Ion (Li-Ion)**
  - **Nickel Zinc (Ni-Zn)**
  - **Small Sealed Lead (SSLA/Pb)**
  - **Alkaline-Manganese and Zinc-Carbon**
  - **Zinc-air**
  - **Silver Oxide**
  - **Lithium (Li)**

- Rechargeable batteries power cordless power tools, cellular and cordless phones, laptop computers, camcorders, two-way radios and digital cameras. All types of cell phones are accepted - any size, make, model, digital or analog, with or without battery or charger.
  - The program does not recycle household cordless phones, mobile-installed or bag phones, two-way radios, or pagers.

- Call2Recycle® **DOES NOT ACCEPT** the following types of batteries:
  - Batteries weighing **more than** 11 lbs/5 kg each
  - Wet cell batteries (including automotive batteries)
  - Batteries used in industrial applications
  - Batteries used in commercial applications
  - Motor start batteries (autos, truck, motorcycles, boats, etc.)

- Motive batteries (golf carts, forklifts, hybrid/electric vehicles, etc.)
- Batteries that cannot be easily accessed and removed by the consumer

9.0 FUNDING

As of the submission of this plan, more than 175 rechargeable battery manufacturers and marketers finance the *Call2Recycle®* program. These companies support RBRCC by licensing from RBRC the right to place a trademarked *Battery Recycling Seal* ("Seal") on their Ni-Cd, Ni-MH, Li-ion, Ni-Zn and SSLA/Pb batteries and/or battery-powered products sold in the United States and Canada. Fees are based on the total number of licensed battery cells sold into North America, without distinction on the nation, state or province in which the sales occur, and cover the total cost of the RBRC/RBRCC North American rechargeable battery program. Those RBRC licensees selling products in Manitoba would be considered stewards. No additional fees will be assessed against those licensees to support the RBRCC Manitoba Plan described here.

Funding for costs of the RBRCC Manitoba Plan attributable to non-rechargeable batteries will be provided on a quarterly basis by stewards of those products who have chosen to support the Call2Recycle® stewardship plan.

As of the date of submission of this plan, Energizer Inc., Panasonic North America, Inc., Duracell, Inc. (Procter & Gamble), Rayovac (Spectrum Brands), Sony Canada and Kodak Canada have agreed to support expansion of RBRCC's Manitoba program to cover non-rechargeable batteries. With Ministry approval of our plan, RBRCC will work to alert all battery manufacturers of their financial and regulatory responsibilities for the implementation of this plan. Assessed fees will be based on relative sales into Manitoba amongst the non-rechargeable battery industry.

A complete listing of the companies funding Call2Recycle's efforts can be found in *Appendix 1*.

10.0 RESPONSIBILITIES AND OBLIGATIONS

The program plan is based on a shared responsibility model where all parties have a role to play.

10.1 Processing and Recycling Contractors

The current RBRCC program operates, and RBRCC Manitoba Plan will operate, in accordance with intra- and inter-provincial shipping and transportation approvals provided by Transport Canada, the Pollution Prevention Branch of Manitoba Conservation and all other provincial environment and transportation ministry approvals. All shipments that are transported internationally are manifested in compliance with the Basel Convention and ISO certifications.

10.2 Provincial Government

The provincial government is expected, through its enforcement authority, to ensure that regulations allow for adequate fines and penalties to be levied against those individuals not in compliance with the regulation or the approved program. The provincial government is expected to enforce program compliance in a timely and effective manner. The provincial government is also

expected to implement policies to ensure that government procurement officials only procure batteries and cell phones from program compliant corporations.

10.3 Local Government

Local government may wish to act as collection sites for designated material with appropriate reimbursement for services provided. Nothing in this plan is intended to dictate whether a local government participates as a collection site.

10.4 Consumer or End User

Consumers will be responsible delivering designated batteries to collection points.

10.5 RBRCC

RBRCC will manage Call2Recycle® to provide an environmentally effective program at the lowest responsible cost and will ensure that the public is kept informed of program costs and activities.

11.0 RECYCLED MARKET DEVELOPMENT

In contrast to some other materials collected through recycling efforts, markets are well developed for the metals and other materials reclaimed from used batteries. Ready insight into these markets can be obtained at the website www.metalprices.com/FreeSite.

The diligence of RBRCC and its' recycling suppliers to ensure that the maximum reuse potential of recovered metal is a cornerstone of the longevity and credibility of the Call2Recycle® program.

12.0 ANNUAL REPORT

RBRCC will provide an annual report to the Manitoba government as stated in the regulation. The annual report will also be available on the program website as a PDF file. The report will include, but not be limited to, the following:

- A summary of the educational materials and educational strategies used for Call2Recycle®
- The location of collection facilities, events and any changes in the number and location of collection facilities
- A description of how the recovered products were managed in accordance with the pollution prevention hierarchy
- An estimate of the total amount of designated products sold into the province by producers that have designated Call2Recycle® and the total amount collected
- Independently audited combined financial statements of RBRC (USA) and RBRCC (Canada) and performance results specific to Manitoba
- A comparison of the approved plan performance for the year with the performance requirements and targets in the regulation and the approved plan. The plan performance measures will include batteries collected by chemistry, collection per capita within the province. Also critical to this annual report will be a discussion of performance relative to the pollution prevention hierarchy.
- A summary of the research and development efforts conducted during the last year and results that they have yielded.

APPENDICES

Rechargeable Battery Stewards (Licensees) of the RBRCC Program

As of July 28, 2010

3M COMPANY - OH&ES DIVISION
A&M ELECTRICAL
ACCESS BATTERY & POWER SYSTEMS
ACER SERVICES CORP
ADVANCE BATTERY SYSTEMS, INC.
AIPHONE CORPORATION
ALEXANDER TECHNOLOGIES EUROPE, LTD
ALLIED INTL TOOL
ALLSTAR MARKETING
ALLTRADE TOOLS
AMERICAN LAWN MOWER COMPANY
AMPTECH
ANDIS COMPANY
ANTON/BAUER INC.
AONENG ELECTRICAL APPLIANCES
APPLE
APPLICA
APPLIED POWER INC.
ARROW FASTENER
ATICO INTERNATIONAL USA INC
AVEX ELECTRONICS CORPORATION (DUPLICATE)
AVT INC.
BATTERIES PLUS LIMITED
BATTERY SPECIALTIES
BISSELL
BLACK & DECKER CORPORATION
BRAUN INC.
BYD BATTERY (USA) CO.
CANADIAN TIRE CORP
CANON U.S.A. INC.
CAR-GO-BATTERY CO.
CASIO HITACHI MOBILE COMM
CASIO INC.
CENTURION INTERNATIONAL INC
CHERVON N.A.
CONAIR CORP.
DC BATTERY PRODUCTS
DELL
DIGI-KEY CORPORATION
DORCY INTL INC
DOUGLAS QUICK CUT
DU-BRO PRODUCTS INC.
DURACELL (P & G)
ENERGY SALES
ENGINEERED ASSEMBLIES
EPSON AMERICA INC.
EUREKA CO.
EVEREADY BATTERY CO.
EVERGREEN (C.P.) USA, INC.
EXCEL BATTERY
FCI USA, INC./FRAMATONE
FEDCO ELECTRONICS INC.
FREIGHT SECURITY NET
FRESHBATTERY.COM
FUJI PHOTO FILM USA INC.
FUJIMIC INC
FUJITSU COMPUTER SYSTEMS
GARRITY INDUSTRIES INC
GATEWAY INC
GEMINI INDUSTRIES, INC.
GENERAL DYNAMICS ITRONIX
GLJ LLC / 02 COOL
GP BATTERIES (HONG KONG)
GP BATTERIES (USA)
GREAT BATCH LTD
GREAT POWER
HEWLETT-PACKARD COMPANY
HIGH TECH COMPUTER
HITACHI-KOKI USA LTD.
HOBBICO
HOT-SHOT PRODUCTS CO., INC.
HOUSE OF BATTERIES
HUNAN CORUN HI-TECH CO LTD (RADIO SHACK/VTECH)
ICOM AMERICA INC.
IDX TECHNOLOGY
INTEC INDUSTRIES CO, LTD
INTERACTIVE SAFETY PRODUCTS
IOTA ENGINEERING COMPANY
ITECH
ITW PASLODE
IWATSU AMERICA INC.
JB ENERGY (HK) LTD.
JIANGSU HIGHSTAR CHEMICAL
JVC CORPORATION (U.S.)
KENDALL COMPANY LP
KENSINGTON COMPUTER PRODUCTS
KENWOOD AMERICAS CORPORATION
LEICA CAMERA
LENMAR
LENOVA/IBM
LG ELECTRONICS
LUMEDYNE INC.
MAG INSTRUMENT INC.
MAKITA U.S.A. INC.
MATSUSHITA ELECT. CORP.
MAX COMPANY LTD
MEGATECH INTERNATIONAL

MERITOOL
MICROSUN TECHNOLOGIES
MILWAUKEE ELECTRIC TOOL CORP.
MITSUBISHI DIGITAL ELECTRONICS
MOTOROLA INC.
MOXIA ENERGY
MPC COMPANY
MULTIPLIER INDUSTRIES CORP. - (PURCHASED BY UNIROSS)
NABC
NATIONAL POWER
NIKKO AMERICA INC.
NORELCO CONSUMER PRODUCTS CO.
NORMARK INNOVATIONS
NOVATEL WIRELESS, INC
OLYMPUS AMERICA INC.
OOMA, INC
P&G (TAC FACILITATED)
PENTAX TECHNOLOGIES CORP
PHYSIO-CONTROL CORPORATION
PORTER-CABLE CORP.
POWER PRODUCTS
POWERGENIX SYSTEMS, INC
PRO TEAM, INC
PROFESSIONAL DENTAL TECHNOLOGY
PROFESSIONAL TOOL PRODUCTS
PROGRESSIVE TECHNOLOGIES INC.
PROMARK ELECTRONICS DIVISION
QUALITECH
QUANTUM INSTRUMENTS INC
RAYOVAC/REMINGTON - SPECTRUM BRANDS
RESEARCH IN MOTION
RESISTACAP INC.
RIDGE TOOL COMPANY
RONWAY BATTERY CO LTD (MCNAIR) - VTECH
ROYAL APPLIANCE MFG. CO.
RYOBI NORTH AMERICA INC
SAFT AMERICA INC
SAMSUNG
SANYO ENERGY (U.S.A.) CORP
S-B POWER TOOL COMPANY
SEARS
SHENZHEN ELITE ELECTRONIC CO., LTD
SIGMA
SNAP-ON INCORPORATED
SOLARIS SCIENTIFIC, LLC
SONY ELECTRONICS INC
SOUTHWEST ELECTRONICS ENERGY
SPM/MICRO POWER ELECTRONICS
STANLEY TOOL (BYD)
STARLIGHT VIDEO
STREAMLIGHT INC.
STRYKER
TANDY CORPORATION
TECHTRONIC APPLIANCES HK LTD
TECHTRONIC INDUSTRIES CO LTD
TELEDYNE WATER PIK
TERRALUX INC
TERRATEK INC
THE HOOVER COMPANY (PURCHASED BY TTI NA)
THE STANLEY WORKS
THOMSON CONSUMER ELECTRONICS
TNR TECHNICAL INC.
TOCAD AMERICA INC.
TOSHIBA AMERICA INC
TRINITY PRODUCTS INC.
TRUMPF POWER TOOLS
UNIDEN AMERICA CORPORATION
UNIROSS
UNIVERSAL POWER GROUP
UT STARCOM
VARTA BATTERIES INC
VENONOM RACING
VERNIER SOFTWARE
VICTORY CINEVIDEO
VTECH COMMUNICATIONS LTD
W & W ASSOCIATES
WAHL CLIPPER CORP.
XUZHOU ENERGY ELECTRONICS CO

Primary Battery Stewards of RBRCC Program in Manitoba

As of July 28, 2010

DURACELL CANADA (PROCTER & GAMBLE)
ENERGIZER CANADA
KODAK CANADA
PANASONIC NORTH AMERICA, INC.
RAYOVAC CANADA (SPECTRUM BRAND)
SONY CANADA

Appendix 2

All-Battery Program for Manitoba

Stakeholder Questions and Answers
June 21, 2010
Winnipeg, Manitoba

Why was 5 kilograms selected as the maximum rate for batteries accepted in the Call2Recycle® program?

The Call2Recycle program is focused on the collection and recycling of consumer batteries. These batteries, whether rechargeable or 'single use,' are found in a variety of applications such as flashlights, laptop computers, smoke detectors, toys, cordless and cellular phones as well as power tools. The weight limit of 11 pounds or 5 kilograms accommodates the targeted batteries and ensures that our infrastructure is not taxed by greater weights.

What are the 'reputable' organizations that you are referring to?

There are many claims of what a collection and recycling program ought to do, some of which are based on experience and science but some that are not. Call2Recycle looks to internationally recognized standards, particularly emanating from the European Union (EU) where battery recycling programs have been in place the longest, as the best guidelines for running our recycling program.

When will you start collecting the non-rechargeables?

Call2Recycle will expand to include the collection of non-rechargeable consumer batteries as of April 1, 2011, coincident with Conservation Manitoba's vision for an all-consumer-battery collection and recycling program for Manitoba.

What about having everyone who sells the batteries also collect them?

Currently, Call2Recycle has 96 active retail collection outlets, representing national chains such as The Source, Canadian Tire and Home Depot in addition to independent stores, throughout Manitoba. Thanks to the battery manufacturers and brand owners who financially contribute to our program's infrastructure, Call2Recycle supplies the collection materials, shipping as well as recycling at no cost to participating collection sites. All organizations --- be they a retail store, community, public agency or business --- are encouraged to sign-up as a Call2Recycle collection site. However, we are not in a position to require any retailer to participate in the program. Legally, only the province can.

Will you have a draft program for stakeholders to comment?

The draft of our proposed program plan for Manitoba may be found by visiting: http://www.call2recycle.ca/doc_lib/Call2Recycle_Manitoba_Plan_v1.pdf. We value input and support to ensure that Call2Recycle's collection and recycling service in Manitoba continues to excel.

Re: the 5 kilograms/11 pounds … would it include battery-operated kid's motorcycles / scooters / bikes?

In most cases, yes. Call2Recycle is focused on the collection of all consumer batteries including Nickel Cadmium (Ni-Cd); Nickel Metal Hydride (Ni-MH); Lithium Ion (Li-ion); Nickel Zinc (Ni-Zn); Small Sealed Lead (Pb), Alkaline-Manganese and Zinc-Carbon; Zinc air; Silver Oxide and Lithium (li). As long as these batteries are less than 5 kg, we'll accept them.

How do we store the batteries? When they are at a landfill, do we need a building or what are the requirements? What preferred method of storage do we have to use?

Batteries should be stored in a cool, dry location away from flammable materials and heat sources. Call2Recycle shipping policy requires that the Lithium-type batteries as well as Small Sealed Lead batteries must be individually bagged (or terminals taped). The collection boxes supplied by Call2Recycle to participating sites include plastic bags for this purpose. Full details of our shipping and handling requirements may be found by visiting: http://www.call2recycle.ca/safety-guidelines.php?c=149&d=241&e=249&w=2&r=Y.
And if you ever have questions about recycling rechargeable batteries or cell phones through Call2Recycle, please call us toll free @ 1-888-224-9764 or by email: customerservice@call2recycle.ca.

What factors limit collection in Europe to 55%? Do you think that it is because batteries are in electronic & other equipment?

The success of collection programs reflects such factors as convenience and ease of access to battery drop-off locations, overall demographics and geography of the area, consumer attitudes and awareness, and cost. Linking with the electronic recycling infrastructure helps greatly with the collection of batteries from electronic and other equipment. As battery recycling is not mandatory from the perspective of either the resident or business or public agency, the factor of individual decisions as to whether to recycle or to throw the battery in the trash bin can affect collection results.

It would be more convenient to have your boxes at a retail location rather than at a landfill / transfer station.

Call2Recycle's objective is to collect and recycle as many consumer batteries as possible. As the recycling of batteries is voluntary for residents and businesses, we invite all interested organizations to become collection sites, offering free collection and services for used batteries through retail, communities, public agencies and businesses. To sign-up as a collection site, please call 1-888-224-9764 or visit:
http://www.call2recycle.ca/sign-up.php?c=149&d=216&e=219&f=228&w=9400&r=Y

Where do you get your funding from?

The Call2Recycle program has been financed by rechargeable battery manufacturers and product manufacturers (whose products are powered by rechargeable batteries) for approximately a dozen years. A licensee fee is assessed for units and weights sold into North America. In Manitoba, financial support also will be provided by primary battery manufacturers

using a cost plus reimbursement budget allocated to each manufacturer based on its market share. We do not charge consumers or generators (e.g., retailers) of batteries.

Since it will become self-financing, what happens to the dollars derived from the landfill levy (ie. the $10 / tonne)?

We respectfully direct this question to Conservation Manitoba as Call2Recycle is not involved with the landfill levy. Call2Recycle is self-financed by the battery industry, using a license arrangement with battery manufacturers and brand owners.

You mentioned limited recycling infrastructure in North America. Is this anticipated to change?

With ever-increasing public policy requiring recycling batteries, the amount of batteries collected is increasing annually. As collected battery volumes grow, the battery recycling infrastructure in North America will also expand.

I have a half 45-gallon of batteries right now – a mixture of rechargeables and primaries. Do they have to be separated between rechargeables & primaries once the program becomes active?

While battery sorting is appreciated, it is not mandatory. Adherence to transportation and safety guidelines for battery collection is an ongoing priority within the Call2Recycle program. All personnel handling Call2Recycle collection containers must be instructed to read the preparation and shipping instructions for proper battery collection as well as watch Call2Recycle's safety training video. This video can be viewed online at http://www.call2recycle.org/webinar-and-video.php?c=1&d=79&e=106&w=2&r=Y.

Is there ever a point when batteries are not acceptable? (e.g., leaking, run over and crushed)

All consumer batteries are accepted in our program. It is very important to follow the safety guidelines for battery collection. Prior to putting these batteries in our collection container, please ensure each rechargeable battery is placed in an individual plastic bag as provided by Call2Recycle.

Our HHW days are aimed at the public and not at businesses. Is there a way to include businesses?

Call2Recycle offers free battery recycling for the public as well as businesses in addition to public agencies and communities. We would be very pleased if battery recycling within your HHW days could accommodate collections from both the public as well as businesses.

We recycle for many municipalities. Do we have to pay for shipping?

No. Call2Recycle provides free shipping in addition to recycling for all collection types and locations. Collection may be done either through our Call2Recycle containers or, in the case of larger quantity generators, through the utilization of their own shipping containers, utilizing pre-approved labeling and adhering to the same preparation requirements as the Call2Recycle collection containers.

How are the boxes shipped from the retailer to RBRC?

Purolator Canada is Call2Recycle's shipping service for our collection boxes. Either include your filled Call2Recycle box in your outgoing Purolator pick-up service or call them at 1-888-SHIP-123. Either way, the shipping is paid for by Call2Recycle.

How can we become a collection site?

To become a collection site, you may either call 1-888-224-9764 or sign-up through our website: http://www.call2recycle.ca/sign-up.php?c=149&d=216&e=219&f=228&w=9400&r=Y.

Upon completion of the application, your location will be assigned a unique identification number, enabling tracking of all materials assigned and returned by the site. Within three weeks of sign-up, you will then receive collection boxes (including plastic bags in which to place individual batteries for safe storage and shipping).

Do you have any info on battery generation or disposal rates per capita?

Available market data suggests that approximately 155 grams of batteries are purchased by each person in Manitoba annually. At this point, we do not have specific data on annual disposal rates. This will vary considerably by battery chemistry reflective of the use of the battery, the equipment in which it is contained and whether it is rechargeable versus non-rechargeable.

Will it be a similar program to Ontario's MHSW initiative?

Call2Recycle has recently expanded to become an all household battery collection and recycling service in both British Columbia and Ontario. With the support of Conservation Manitoba, we would like to extend our expanded collection and recycling program throughout Manitoba.

Resource Conservation Manitoba

Appendix 2

A Non-Profit Centre for Applied Sustainability

To: Representatives of Household Hazardous Waste Stewardship organizations

From: Peter Miller, Policy Committee Chair of Resource Conservation Manitoba (RCM)

Re: Comments on HHW Draft Stewardship Plans

Date: July 9, 2010

Resource Conservation Manitoba (RCM) is a non-government environmental organization whose mandate is to promote applied sustainability through education, policy analysis and advocacy. The range of our activities is indicated on our web site at www.resourceconservation.mb.ca. Among other concerns, we have promoted the 4 Rs and intervened on waste reduction and diversion issues for 25 years. We recently successfully persuaded the City of Winnipeg to undertake a complete review of its waste management and minimization efforts in order to move from the current 17% diversion from landfill to 50% or better in line with a number of leading cities.

Thank you for the informative consultation session held at the Forks on June 21, 2010. It was encouraging to see that a number of organizations have well-established stewardship programs, which are undergoing enhancement as EPR regulation is rolled out in Manitoba. We are not able to comment on the programs individually, but we have prepared a brief statement of principles and elements that we think are important for EPR programs and which we urge you to consider in finalizing your plans and the province to consider in reviewing the plans. These are found in the attached document: *RCM Views on Extended Producer Responsibility.* We here supplement those views by focusing on the special considerations that apply to the collection and diversion of hazardous waste.

Reduction in toxicity and wastage

Although the focus of the stewardship programs is on collection and diversion of wastes, we note first that there should be continuous pressure for and progress in reducing the toxicity of products, substituting less toxic products, and avoiding wastage and inefficient use of toxic products. Product design and consumer education will be key components in comprehensive toxic waste reduction programs.

Performance measures and target

Most waste diversion programs have as a major objective the conservation and recovery of resources directly and indirectly through conservation of energy and water consumed in extracting and processing raw materials. Hazardous waste programs, on the other hand, have harm prevention as an overriding goal, often in combination with resource recovery. The hazardous substances you deal with are banned

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from landfills and sewers because of their potential harm to people and the environment. This means that 100% of these waste materials should be diverted from landfill and recovered for 4R treatment or, secondarily, for special safe disposal. There is no other legal alternative for waste hazardous materials.

The implication of these observations is that program targets and performance measures should ideally approach a 100% recovery rate (from materials available for recovery) as closely and rapidly as possible.

We recognize that there are challenges in achieving such a target. One of these challenges is to establish proper performance metrics with which to define the target and measure its achievement. Some of the draft plan discussions point to multiple paths by which the target materials enter and leave the consumer's possession, the variable lag times between purchase and disposal, hoarding, and determination of residual quantities of hazardous products left for disposal after use. Whatever metrics are used in practice, one test of their reliability might be their correlation with success in keeping prohibited hazardous products out of landfills and sewers. Periodic detailed waste audits and regular municipal wastewater testing should indicate whether the prohibitions, and thus the diversion programs, are succeeding. These end-point audits can then be supplemented by other investigations, including surveys of consumer behaviour, to determine just what happens to the listed materials and what are the behaviours associated with their fate. This information in turn can guide development of more effective collection, education and marketing, incentive and enforcement programs.

RCM believes that the regulator and the stewards, involving other stakeholders as appropriate, should engage in systematic auditing and research to answer the questions (1) how closely are we approaching 100% recovery, (2) what is the fate of unrecovered materials, (3) what are the barriers to improving recovery, and (4) what modifications in collection systems, education and social marketing, incentives and enforcement can bring us closer to our goal. We believe that provision for such auditing and research should be built into the stewardship plans approved by Manitoba Conservation. Much of this research can be done most cost-effectively on a cooperative basis.

Targets should reflect the 100% recovery ideal. RCM believes, for example, that the 25% battery recovery relative to sales by 2015 by Call2Recycle is unlikely to reflect anything close to a 100% recovery of what is available to recycle. We need an account, established through consumer research and waste audits, of what has happened to the other 75% and what can be done about it. Analogous remarks may apply to the other hazardous waste stewardship programs.

Involvement of Retailer

The best management for most toxic products is to use them up, where this is applicable. However, there are some forms of waste like batteries, fluorescent light tubes, broken mercury thermometers, etc, where this does not apply. The general rule should be that it should be as easy to get rid of the product safely as it was to purchase it in the first place. In general this means a significant involvement of the retailer. The

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current province-run system is both car-dependent and inconvenient. It must be changed. Likely in the future there will be more people living without cars.

For large bulky items like TVs, which were probably delivered to the home in the first place, there should be a pick-up of the product. One suggestion is that where there is a delivery fee that it be extended to the cost of picking up the product when it is no longer of use. There could be a sticker attached to this effect. Backhauls by delivery vehicles and arrangement with existing recycling services, such as Canadian Diabetes pickups, provide cost-effective means for collecting bulky items for a fee.

Solvents

Solvents are another product that get used but not really used up. Mostly they end up being poured down the drain after they have been used to clean paint brushes, for example. One solution is to provide free of charge (like paint stir sticks) a container, preferably wide mouthed, into which the used product could be poured and sealed in for safe delivery to a depot or to the retailer.

Education

Education of the consumer is crucial, but it is not enough if there is no convenient and safe way for all people to take care of their HHW.

Thank you for the opportunity to comment on your stewardship plans.

Peter Miller, Policy Committee Chair p.miller@uwinnipeg.ca
Resource Conservation Manitoba

Sent to:

Call2Recycle - csmith@call2recycle.org, tbiljan@call2recycle.ca

ProductCare - mark@productcare.org, belinda@productcare.org

CleanFARMS - friesenb@clean farms.ca

Switchthe'Stat - kfriesen@summerhillgroup.ca

PCPSA - Ginette.vanasse@medicationsreturn.ca

MARCC - marrc@mts.net

Manitoba Conservation (Pollution Prevention) - Laurie.Streich@gov.mb.ca, Rod.Mcormick@gov.mb.ca

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Registrants

First Name	Last Name	Country	Address	City	Industry	State	Organization	Zip Code
Delaney	Ross	CA	628-70 Arthur St	Winnipeg		MB		R3B 1G7
tracey	jones	CA	34 Henry St.	St. Jacobs		ON		N0B 2N0
barry	Citren	CA	1680 Tech Ave	Mississauga		ON		L4W 5S9
Barb	Kingdon	CA	Box 160	Baldur	Other	MB	Assiniboine Hills Conservation District	R0K 0B0
Alison	Wallace	CA	125 - 1st Ave nw	Roblin	Government - State & Local	MB	Town of Roblin	R0L 1P0
Ross	May	CA	162 - 2025 Corydon Ave. Suite 197	Winnipeg		MB		R3P0K6
Victor	Uy	US	909 N Sepulveda Blvd Suite 650	El Segundo		CA		90245
George	Valiaveettil	CA	8200 keele st	concord	Manufacturing	ON		l4k2a5

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josee	lapointe	CA	5905 cote de liesse	st-laurent		QC		h4t 1c3
Claudia	Gavriluta	CA	1 presidents choice	Brampton	Retail	ON	Loblaw	l6y5s5
Wallace &	Carey	CA	5445 - 8 ST NE	Calgary		AB		T2K5R9
Josh	Patterson	CA	130 East Drive	Brampton	Manufacturing	ON	Taro Pharmaceuticals Inc.	L7G 1W1
Tom	Keep	CA	900 Richmond Ave East	Brandon		MB		R7A 7M1
Mike	Albani	CA	281 Hillmount Road	Markham	Manufacturing	ON	Philips Electronics Ltd.	L6C 2S3
Karen	Stephenson	CA	2000 Argentia Road, Plaza V, Suite 101	Mississauga	Manufacturing	ON		L5N 2R7
Terry	Yee	CA	1004 Middlegate Road	Mississauga		ON		L4Y 1M4
Grace	Wong	CA	1940 Argentia Road	Mississauga		ON	Wal-Mart Canada	L5N 1P9

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Pierre	Petelle	CA	612-350 Sparks St.	Ottawa		ON	CropLife Canada	K1R7S8
Catherine	Ujihara	CA	150 Biscayne Cres	Brampton	Manufacturing	ON	The Clorox Company of Canada	L6W 4V3
Brent	Kirschner	CA	1020 64th Avenue	Calgary	Retail	AB	Canada Safeway	T2P 2J6
Diane	Gibson	CA	1940 Argentia Road	Mississauga	Retail	ON	Walmart Canada	L5N 1P9
anne	barbuto	CA	555 burnhamthorpe Road	Toronto	Manufacturing	ON	WD-40	M9C 4V3
Jeff	Cattanach	CA	1940 Argentia Road	Mississauga	Retail	ON	Wal-mart Canada	L5N1P9
Karen	Melnychuk	CA	200-283 Bannatyne	Winnipeg	Consulting	MB	Multi-Material Stewardship Manitoba	R3B 3B2
Kate	Hagemann	US	29 Stanhope Street	Boston		MA		02135
Shabbir	Beawerwala	CA	243 Consumers Road	Toronto	Retail	ON	Shoppers Drug Mart	M2J4W8

TErri	Robertson	CA	468 south Service Rd	Oakville		ON	GE Lighting	L6J 2X6
chetan	patel	CA	75 advance boulevard	brampton	Manufacturing	ON		L6T 4N1
Jeff	Beare	CA	5905 chemin cote de liesse	st-laurent	Manufacturing	QC		h4t 1m3
Sheryl	Christensen	CA	1711 Aimco Blvd	Mississauga	Other	ON	Radiator Specialty Company Canada	L4W 1H7
Susan	Peterson	CA	8200 Keele St.	Concord	Manufacturing	ON		L4K 2A5
Heather	Tyrrell	CA	45 Sheppard Ave East, Suite 301	Toronto	Other	ON	CACDS	M2N 5W9
Alison	Desjardins	CA	Box 479	Birtle	Medical, Pharma, Biotech	MB	Birtle Pharmacy	R0M0C0
Art	Ito	CA	8925 Torbram Road	Brampton	Retail	ON	Hbc	l6teg1
Edith	Gagnon	CA	250 lanark	ottawa	Government - Federal	ON	Health Canada	k1a0k9

Linda	Kohen	CA	2000 Argentia Road, Suite 400 Plaza 3	Mississauga	Medical, Pharma, Biotech	ON	Novartis	L5N 1V9
Lanny	McInnes	CA	201 Portage Ave.	Winnipeg		MB		R3B 3K6
Hurst	Nadia	CA	1000 de la Gauchetiere Bur 500	Montreal	Medical, Pharma, Biotech	QC	Lundbeck Canada Inc	h3b 4w5
John	Graham	CA	300 1345 Waverley	Winnipeg	Retail	MB	Safeway	R3T 5Y7
Krista	F	CA	Roncesvalles Ave	Toronto		ON		M6R 2L3
Mark	MacLure	CA	789 Donnybrook Drive	Dorchester	Transportation & Distribution	ON	Access Distribution	N0L 1G5
Dmitry	Ponomarev	CA	1910 Broadway St	Port Coquitlam	Manufacturing	BC	Ducan Products Inc.	V3C 2N1
Rick	Pierson	CA	99 Lowson Crescent	Winnipeg	Other	MB	Univar Canada Ltd.	R2P 0T3
Kurt	Plett	CA	39 Willmington Dr	Winnipeg	Medical, Pharma, Biotech	MB	Wal-Mart Pharmacy	R3X 2C1

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Alyssa	Seclen	US	101 Paragon Drive	Montvale	Manufacturing	NJ	Benjamin Moore & Company	07421
Susan	Nieuwhof	CA	4711 Yonge St	Toronto	Manufacturing	ON	Procter & Gamble Inc.	M2N 6K8
Maury	McCausland	CA	12831 Horseshoe Place	Richmond	Retail	BC		V7A4X5
Stephen	Rathlou	CA	1 Webster Street	Brantford	Other	ON	S. C. Johnson and Son, Limited	N3T 5L8
Victoria	Cotton	CA	1840 Oxford St. East	London	Retail	ON	3M Canada	N6A 4T1
Joseph	Howley	US	1975 Noble Road	Cleveland	Manufacturing	OH	GE Lighting	44060
Annabel	Gills	CA	3100 Harvester Road, Unit 7	Burlington		ON		L7N 3W8
Douglas	Thorsley	CA	1940 Argentia Road	Mississauga	Medical, Pharma, Biotech	ON	Wal-Mart Canada Corp/	L5N1P9
sonia	Laratta	CA	2180 Yonge Street	Toronto	Retail	ON	Canadian Tire Corporation, Limited	M4P 2V8

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Gary	Hall	CA	50 Ultimate Drive	Richmond Hill	Other	ON	BMW Group Canada	L4S 0C8
David	Bois	CA	34 Henry Street	St. Jacobs	Retail	ON	Home Hardware Stores Limited	n2j 3v4
ALLEN	LANGDON	CA	701 West Georgia	Vancouver		BC		V7Y 1C6
Meegan	Armstrong	CA	PO Box 9341 Stn Prov Gov	Victoria	Government - State & Local	BC		V8M 9M1
David	Huettner	US	3001 S. Yale St.	Santa Ana	Manufacturing	CA	Behr Process Corporation	92704
Virginia	Olsen	CA	5151 Terminal Rd	Halifax	Government - State & Local	NS	Nova Scotia Environment	B3J 2P8
Laura	Selanders	CA	6500 Macleod Trail SW	Calgary	Retail	AB	Home Depot Canada Inc.	T3G 3C1