



Recharging the planet. Recycling your batteries.™

January 22, 2010

Mario Berube, Service Head
Service des matieres redsiduelles
Direction des politiques en milieu terrestre
Ministere du Developpement durable, de l'Environnement et des Parcs
Edifice Marie-Guyart, 675
Boulevard Rene-Levesque Est, 9° etage, boite 71
Quebec (Quebec) GIR 5V7
Canada

Dear M. Berube,

The Rechargeable Battery Recycling Corporation of Canada ("RBRCC") operates the Call2Recycle® / Appel@Recycler® program, the continent's oldest and most successful product stewardship program. Appel@Recycler® has been serving citizens of Quebec since 1997, collecting and recycling over 370,000 kg of used rechargeable consumer batteries. The Ministry of Sustainable Development, Environment and Parks has solicited public comments on the draft regulation to the Environment Quality Act (R.S.Q.c.Q-2) issued in the *GAZETTE OFFICIELLE DU QUEBEC* on November 25, 2009. This letter is in response to that solicitation for comments.

As an organization solely devoted to collecting and recycling batteries, we applaud your efforts to organize and implement a cost-effective program in Quebec. As we have in the past, we plan on supporting your efforts in making this a success by developing and submitting a plan on how the Appel@Recycler® program can be expanded to include used nonrechargeable as well as used rechargeable portable consumer batteries. We have already obtained the support of major manufacturers of nonrechargeable consumer batteries to support this expansion.

We anticipate that RBRCC would be recognized as an organization described in Section 4 of the proposed regulation. Therefore, we understand that many of the specific requirements of the final version of this regulation may not directly apply to our program. Nonetheless, we recognize that the principles set forth in other sections may be looked to in evaluating our program, and thus we offer these comments in a constructive spirit to enhance the overall quality of your efforts.

1. Definition of "Battery"

We strongly urge clarification of the definition of "battery" for the purposes of collecting and recycling. (Division 2, Section 30, (1)-(3)) The definition is both overly broad and non-specific. Our recommended definition would be:

"All consumer battery cells or packs regardless of chemistry weighing less than 5 kg."

This definition should explicitly exclude a number of types of batteries that are already generally recycled:

- **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**

Batteries, and particularly rechargeable batteries, can be found in incredibly diverse applications ranging from a starter on a gas-powered lawnmower, a button cell inside a router and switch and a battery powered electric toothbrush. Battery cells can also be strung together to create very substantial battery packs that cannot be easily disassembled for transport. Examples include communications batteries and hybrid car batteries. All might use relatively small conventional cells but are either strung together or embedded in other products. Finally, excluding “automotive” batteries (as the draft regulation proposes) does not necessarily mean, for the purposes of this regulation, that boat, golf cart, lawnmower, Segway® or wheelchair batteries are excluded. The concepts of “starter” and “motive” address this concern.

When collecting and transporting mixed used consumer batteries, safety must be a major concern. Batteries can be very heavy, particularly when used as part of battery packs. Lifting and moving containers that weigh more than 20 kg create safety issues particularly amongst retail workers. Also, most containers used in battery collection are not made for handling loads greater than 20 kg; exceeding this would harm the integrity of the container / box, potentially causing spills and damage. A 5 kg limit on cells and packs allows for effective and safe handling of used batteries.

Concern for safety is also the reason why the location of collection points must be closely managed. Used batteries can retain residual charges; improper handling, storage or transport of a used battery can result in an electrical discharge which may lead to fire. As a result, the regulation’s instructions on location of and accessibility to collection location must be revised to include the policy that any battery collection site must be supervised by an appropriate party. Such a policy would prohibit unmonitored public sites in, for instance, schools, street corners and other venues.

2. Collection Targets

The choice of metrics to measure recycling success merits considerable thought, and different metrics make sense for different types of products, especially long-lived products like batteries that consumers tend to keep after use. These characteristics of consumer battery handling make the concept of “collection targets / rates” as the only way to measure a program’s success misleading and ultimately less than ideal. At least as important, and more accurately measure, are recovery / recycling rates – that is the amount harvested from batteries that is made available for use in new products.

The pace of increases in recovery proposed in Section 34 of the proposed regulation -- 25% after three years of program operations, increasing by 5 percentage points every year after until attaining a 65% collection rate goal – is unrealistic and overly optimistic.

First, calculation of collection rate (the amount collected divided by the amount sold into the marketplace) is far less straightforward than it would appear. For one thing, “sales” is not an accurate surrogate for “batteries available for collection” due to two reasons (alluded to above): the long product life of certain batteries and the consumer’s tendency to hoard products that use batteries. Many batteries, both rechargeable and non-rechargeable, remain useful in the market for many, many years, long after the year sold. Creating collection targets on what is sold that same year increases the challenge in hitting targets and promoting disposal instead of continued use. Additionally, there has been extensive research demonstrating the consumer’s tendency to keep cell phones, power tools, cameras and other devices that use batteries – regardless whether they can be used or not – because of the belief that there remains some intrinsic value in the device. We would encourage the province to assess whether this measure is an effective means to assess and to incent the behaviors it seeks.

Second, attaining a 25% collection rate after three years of program operation cannot be supported by the experiences of any other jurisdiction in the world. It is overly optimistic. While the European Union’s Battery Directive directs its member states to achieve a 25% collection rate by 2012, the only countries that will attain this goal are jurisdictions where programs have operated over 10 years. In fact, the fastest any country has attained a 25% collection rate is seven years (see attachment 1). In addition, no country in the world has maintained a collection rate greater than 54% which calls into questions the realism of the 65% proposed target rate. Comparing Quebec to these successful programs also blurs an important issue: successful battery collection and recycling programs are always more effective in more densely populated jurisdictions than Quebec. Successful programs in the Netherlands, Belgium and Switzerland are not accurate predictors for what is necessary to succeed in Quebec.

For these reasons, we propose that the province: **1) carefully design its calculation of collection targets to reflect the actual use and disposal characteristics of the consumer battery marketplace; 2) seek to attain a properly defined 25% in five years instead of three; 3) cap the collection rate target based on the highest attained in the world; and 4) reassess the collection targets every two years to ensure that targets compared with program design are realistic and attainable.**

Third, we are concerned that the regulation’s focus on collection rates obscures a measure that we believe is at least as important – recovery / recycling rates (the amount harvested from the battery that is used in a secondary product). Successful collection of batteries could be totally offset by what is done with the batteries once collected. **We strongly urge the province to adopt the European Union’s (EU) Directive “recycling efficiency” targets** (see attachment 2) as part of the regulation.

3. Reporting

The proposed regulation envisions that the province will collect a range of data from battery producers, much of which is appropriate and readily attainable. However, some requirements are simply not feasible.

Section 33 indicates that a producer “must indicate in its annual report the average age of the recovered products”. That is simply not possible. Besides the fact that almost all batteries sold into the market do not indicate their age, most batteries collected will be from prior year sales. A battery also may not readily indicate its producer.

Sections of the regulation also imply that material might be reported by unit or number of batteries. There is no program in the world (or mechanism, as far as we know) that measures battery units collected. Rather, because these programs necessarily operate at a high volume, industrial level, weight is the standard measure.

Reporting should be focused on weight collected by site, channel (e.g., retail, government, etc.) and chemistry. Collecting data by chemistry will allow an assessment of rechargeable versus non-rechargeable batteries collected (please see Attachment 3 for a summary report).

4. Penalties

Collection and recycling programs should be held to specific performance metrics that are attainable, transparent, and equitable. Section 35 of the regulation spells out penalties when a battery collection program does not attain collection rates as defined by the regulation. We believe that the penalties are overly punitive, do not reflect the costs of recycling, are neither obvious in their application nor equitable across battery chemistries.

We recycle more batteries than any organization in North America. Our processing costs per alkaline / primary battery are \$0.01 - \$0.02 per unit. The penalties per this section (“\$0.10 per unit or equivalent weight”) would capture 5 to 10 times the cost to process single use batteries, far exceeding any reasonable offset of environmental impact. This point is even more pronounced with rechargeable batteries where processing net costs per unit, depending on the rechargeable chemistry, can be close to zero yet the penalty would be \$0.50 per unit or equivalent weight.

We propose that: 1) **penalties associated with the collection of batteries should be based on weight, regardless of battery chemistry, application or type;** 2) **penalties more accurately reflect costs of processing batteries and not simply be used as a means to harm efforts or generate revenue;** and 3) **that there be a “reasonableness” test for penalties prior to imposing them on obligated producers to ensure fairness and appropriateness.**

5. Other

We appreciate that this is a proposed regulation with many of the details to clarify over time. The following additional comments and questions are in the spirit of clarification.

a.) We understand that a program must be operational one year after the regulation is finalized. Because Appel@Recycler® already is operating in Quebec (and has been for 13 years), our core

program will meet this deadline. However, it has been our experience that, due to the complexities of developing and implementing a battery recycling program, approval of a plan that expands our historic operations can take 6-12 months (exact dates are still not known since plans have yet to be approved in Ontario or British Columbia). **We urge the province to consider timeframes from when plans are approved and not simply when the regulation has been finalized.**

b.) The definition, responsibilities and reporting on the proposed regulation's concept of "dissociable battery" is quite unclear (Section 3). The language does not delineate who is responsible for the "main product" in which a battery is used. The vast majority of rechargeable consumer batteries and some nonrechargeable consumer batteries reach provincial consumers embedded in a product. If that product is not currently a covered material, we believe that: 1) **that the battery should not be reported as "sales into the province" for the purposes of battery recycling;** 2) **the organization responsible for batteries cannot be obligated to collect or recycle those batteries, or report on the "host product";** and 3) **the organization responsible for the host product is not responsible for collecting or recycling the batteries in that product until such time that the host product itself is deemed a material for the purposes of recycling.** We strongly believe that this is the only way to cost-effectively proceed with such a regimen.

c.) Similarly, for those "host" products of batteries that are deemed covered under this or successive regulations (such as electronics or appliances), **the province should require that producers remove batteries and place them in the battery recycling waste stream** as part of the recycling process.

d.) RBRCC represents battery and product manufacturers to ensure the appropriate end-of-life disposal of batteries. None are headquartered in Quebec. **We assume that they global manufacturers can serve as obligated producers for the purposes of this regulation.** Such an approach is essential to managing an efficient program across multiple provinces.

e.) Finally, several references are made in the proposed regulation to the "planned destination for the final reclamation of the recovered products and materials" (e.g., Section 6 (13)). The concept of final reclamation could include many secondary downstream locations in the recycling process. Since the recycling process is circulate and never-ending, reference to "final reclamation" lack sufficient meaning. **We strongly urge that, for the purposes of batteries, this is interpreted as the "recycling processor" for batteries.**

We look forward to working with you in developing this program and providing our expertise on the specific program design. We stand ready to help Quebec develop and launch a world class battery recycling program.

M. Berube
January 22, 2010
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Please let us know what we can do to assist you in this endeavor.

Sincerely,

A handwritten signature in black ink that reads "Carl E. Smith". The signature is written in a cursive style with a large, stylized "C" and "S".

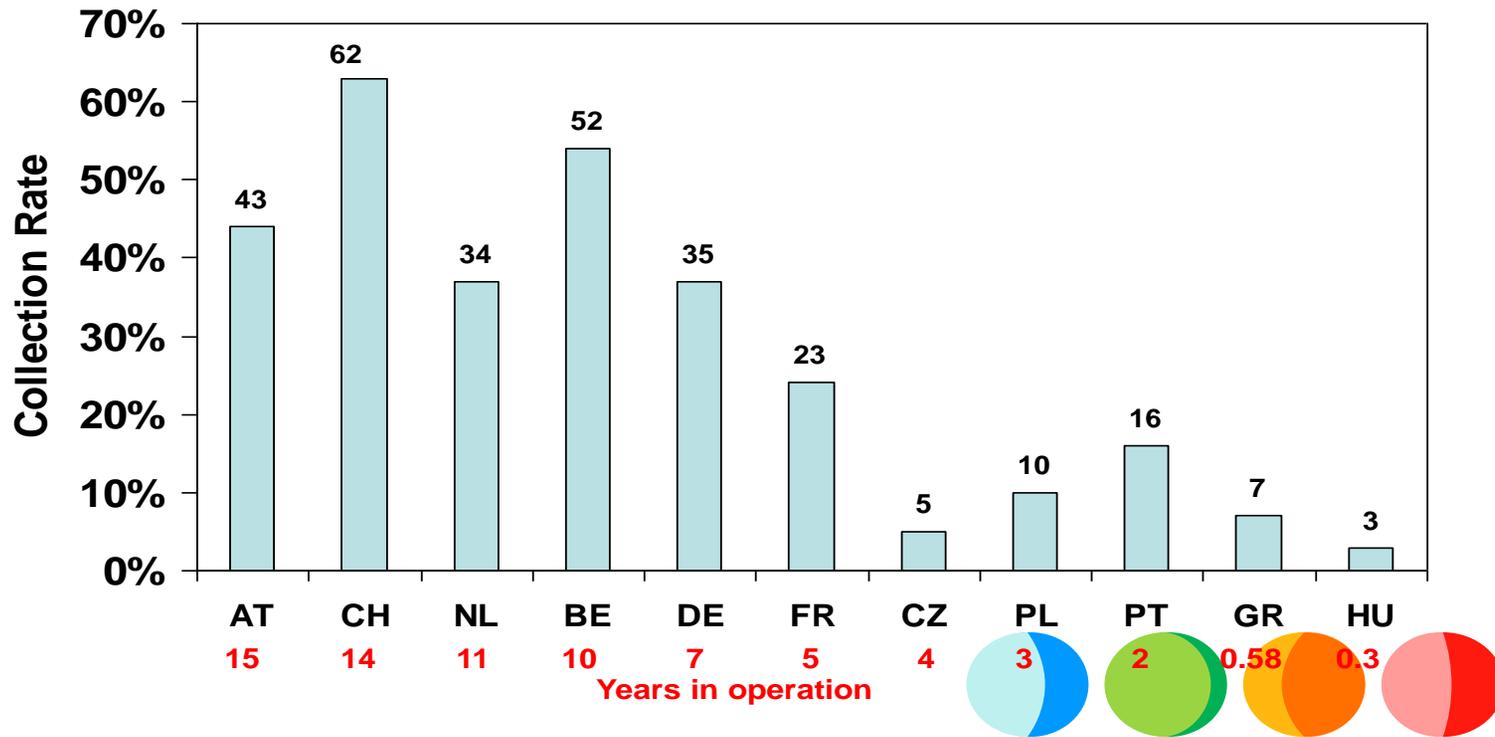
Carl E. Smith, LEED® AP
CEO / President
Call2Recycle® / Appel@Recycler®
Rechargeable Battery Recycling Corporation of Canada

Cc: Susan Antler, RBRCC
John Bailie, EEMAC
Lucie Bouchard, Chef de service
Andree Gendron, chimiste, M. Sc.
Dominique Mercier, Agent de recherche
Jean Roberge, avocat, Agent de developpement inndustrial, Recyc-Quebec
David Weinberg, Esq.

Attachments (3)



Collections by Program Age



Source: European Portable Battery Association-2008 (EPBA)



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“PART B: RECYCLING

3. Recycling processes shall achieve the following minimum recycling efficiencies:

- a) recycling of 65 % by average weight of lead-acid batteries and accumulators, including recycling of the lead content to the highest degree that is technically feasible while avoiding excessive costs;
- b) recycling of 75 % by average weight of nickel-cadmium batteries and accumulators, including recycling of the cadmium content to the highest degree that is technically feasible while avoiding excessive costs; and
- c) recycling of 50 % by average weight of other waste batteries and accumulators.”

Source: *http: Directive 2006/66/ec of the European Parliament and of the Council of 6 September 2006 on Batteries and Accumulators and Waste Batteries and Accumulators and Repealing Directive 91/157/EEC. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:266:0001:0014:EN:PDF>.*



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Montreal Office Supplies 2009

Receipt Report for 01/01/2009 through 12/31/2009

Active Sites - 1
Number of Sites with Receipts - 1 (100.00%)
Total Receipts - 16
Pounds Received - 7,681.00 (3.43 tons)
Conforming Rechargeables - 7,602 lbs
- NiCd - 1,818 lbs
- Li-Ion - 3,865 lbs
- Ni-MH - 1,868 lbs
- Lead - 51 lbs
Non-Conforming Rechargeables - 79 lbs
Pounds Cell Phones - 0 lbs
Number of Cell Phones - 0
Other Materials - 0 lbs

Site Participation Summary



■ Good Participation	100.0%
Total:	100.0%

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January 22, 2010

ATTACHMENT THREE



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Receipt Chemistry Breakdown

NiCd - 1,818 lbs
Ni-MH - 1,868 lbs
Li-Ion - 3,865 lbs
Lead - 51 lbs
Alkaline - 75 lbs
Lithium - 4 lbs
Silver Oxide - 0 lbs
Wet Cell NiCd - 0 lbs
Mercury - 0 lbs
Zinc Carbon (Mercury) - 0 lbs
Zinc Carbon (No Mercury) - 0 lbs
Lead Carbonate - 0 lbs
Nickel Iron - 0 lbs
Cell Phone - 0 lbs
Cell Phone Accessories - 0 lbs
Other - 0 lbs