

# **Environmentally Sound Management (ESM) of End-of-life Batteries in North America:**

## **Technical Guidelines for Best Practices and Technologies for ESM of Spent Lead-acid Batteries**

**REQUEST FOR PROPOSALS**



**Commission for Environmental Cooperation**

**2014**

## I. Overview

The Commission for Environmental Cooperation (CEC) has undertaken previous work to support the environmentally sound management (ESM) of spent lead-acid batteries (SLABs), which has culminated in the following documents:

1. *Practices and Options for Environmentally Sound Management of Spent Lead-acid Batteries within North America*<sup>1</sup> (December 2007)
2. *Hazardous Trade? An Examination of US-generated Spent Lead-acid Battery Exports and Secondary Lead Recycling in Mexico, the United States and Canada*<sup>2</sup> (April 2013)

Environmentally sound management (ESM) is one approach to ensuring that hazardous wastes and recyclables, including those moving across international borders, are being managed so that human health and the environment are protected.

Given the ongoing and shared interest of the CEC Parties (Canada, Mexico and the United States) to foster ESM in the recycling of SLABs, the CEC is requesting proposals from prospective consultants to develop technical guidelines for best practices and technologies for the environmentally sound management of spent lead-acid batteries (SLABs) in North America, based on the best information the consultant is able to obtain. Specifically, the guidelines are intended to target environmental, health, and safety aspects of collecting and recycling SLABs within a facility setting, and also to identify technologies and approaches that can be adopted by such facilities and their employees. These guidelines are to be viewed as building on, and drawing from, the documents identified above and other relevant national and international guidance or documents that may exist—including, for example, guidance established under the work of the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal*.

The CEC is an intergovernmental organization created by Canada, the United States and Mexico under the North American Agreement on Environmental Cooperation (NAAEC). The CEC was established to address regional environmental concerns, help prevent potential trade and environmental conflicts, and promote the effective enforcement of environmental law. The Agreement complements the environmental provisions of the North American Free Trade Agreement (NAFTA).

The CEC's Council, its governing body, approved the project, entitled Environmentally Sound Management of Selected End-of-Life Vehicle Batteries, Including Spent Lead-Acid Batteries (SLABs), in North America, as part of the Operational Plan for 2013–2014, with the purpose of supporting the environmentally sound management of spent

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1 Available here: <[www3.cec.org/islandora/en/item/2323-practices-and-options-environmentally-sound-management-spent-lead-acid-batteries-en.pdf](http://www3.cec.org/islandora/en/item/2323-practices-and-options-environmentally-sound-management-spent-lead-acid-batteries-en.pdf)>.

2 Available here: <[www3.cec.org/islandora/fr/item/11220-hazardous-trade-examination-us-generated-spent-lead-acid-battery-exports-and-en.pdf](http://www3.cec.org/islandora/fr/item/11220-hazardous-trade-examination-us-generated-spent-lead-acid-battery-exports-and-en.pdf)>.

lead-acid batteries and gathering information regarding the potential impacts of other battery chemistries used in hybrid and electric vehicles throughout North America.

For a complete description of the project, including tasks and related budget, please visit the CEC website at: <<http://cec.org/Page.asp?PageID=122&ContentID=25627>>.

## **II. Terms of Reference**

### **A. Overview and Scope**

The main purpose of this project is to develop technical guidelines that:

- (1) identify and consolidate best practices and technologies for collecting and recycling SLABs in a manner that protects the environment, health and safety of workers and the public;
- (2) provide recommendations on how to implement best practices and technologies within new and existing SLAB collection, storage and recycling facilities that operate in North America.

This project, and particularly the technical guidelines, will not cover the export and import of SLABs, as that was covered by a CEC report released in April 2013. In addition, hazardous waste export and import procedures have already been explained in the earlier CEC *Crossing the Border* report.<sup>3</sup>

### **B. Statement of Work**

The consultant shall coordinate with the CEC's designated contacts to accomplish the following:

1. Prepare a preliminary list of SLAB recyclers and other relevant potential stakeholder organizations and technical experts in the CEC countries that could provide useful input on various aspects, best practices, and technologies for inclusion in the technical guidelines.
2. Identify and document the operational and environmental, health and safety aspects of collecting and recycling SLABs in a facility setting that will be covered by the technical guidelines, and for which guidance on best practices and technologies will be established.
3. Establish technical guidelines that identify operating best practices and technologies that foster ESM in each of the areas identified within item 2. These

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<sup>3</sup> See *Hazardous Trade?* <[www3.cec.org/islandora/fr/item/11220-hazardous-trade-examination-us-generated-spent-lead-acid-battery-exports-and-en.pdf](http://www3.cec.org/islandora/fr/item/11220-hazardous-trade-examination-us-generated-spent-lead-acid-battery-exports-and-en.pdf)> and *Crossing the Border* <[www3.cec.org/islandora/en/item/10158-crossing-border-opportunities-improve-sound-management-transboundary-hazardous-en.pdf](http://www3.cec.org/islandora/en/item/10158-crossing-border-opportunities-improve-sound-management-transboundary-hazardous-en.pdf)>.

guidelines are not intended to duplicate efforts already achieved elsewhere, although relevant information in other documents may be used, as appropriate. Rather, the guidelines are intended to provide clear instructions on how to implement ESM measures at the operational level. Consequently, this activity will comprise identifying relevant national and international guidance and other information resources from which a technical guidelines document will be established. To a lesser extent, the guidelines will identify and address specific issues for which significant gaps may exist, and will recommend potential ways to manage them.

To the extent that real world examples of best practices and technologies are readily available, these should be included in the technical guidelines.

4. Solicit and compile initial information and recommendations from key stakeholder experts in SLABs on: collection, transportation, storage, recycling and management of residual wastes; environmental health and safety issues; best practices and technologies for collection, transportation, storage, recycling and management of residual wastes from SLABs, including factors/variables to consider when implementing such practices and technologies within North America, focusing on recycling facilities.
5. Obtain information on the environmentally sound operations, technologies and procedures currently used in the CEC countries to collect and recycle SLABs. For the purpose of this project, such operations will include the environmentally sound collection, transportation, storage, and the various stages of processing SLABs for material recovery, including management of residual wastes resulting from recycling and treatment. Relevant environmentally sound information obtained by the consultant shall be included in the technical guidelines.
6. Describe best practices and technologies for environmentally sound management related to the collection, transportation, storage, recycling and management of residual wastes of SLABs, including factors related to implementing such practices and technologies at existing facilities. Such factors will include estimated costs of implementation, physical or spatial requirements related to implementation at existing facilities, and worker education/training requirements.
7. Consolidate the information relevant to the activities identified above, into a single report, including an abstract, an executive summary and a bibliography. Format, writing style and other details applicable to the report are described below.
8. Present draft technical guidelines and explain the approach used to develop them. Solicit feedback during the *CEC Consultation Workshop* to be held in Mexico City in September 2014.
9. Compile feedback (oral and written) gained from private and public stakeholders during and immediately after the *CEC Consultation Workshop*. Highlight issues where stakeholders appear to be in relative consensus on desired changes to the

guidelines, and those issues where stakeholders appear to disagree most about desired changes. Research the validity of the suggested changes and present recommended revisions to the CEC Secretariat and CEC Parties based on that research.

10. Revise and adjust the draft technical guidelines based on the feedback provided by the CEC Secretariat and CEC Parties to the recommended revisions in item 9. Prepare a summary letter explaining why suggested changes were or were not incorporated into the revised draft technical guidelines for posting online along with the revised draft technical guidelines.
11. The CEC Secretariat will post the revised draft technical guidelines and summary letter online and solicit additional written feedback from interested stakeholders. Once these are posted, [the consultant will] contact the SLAB recyclers and other technical experts identified in item 1 to request their technical review of the revised draft technical guidelines. At the conclusion of the CEC Secretariat's 45-day public comment period, compile all feedback from private and public stakeholders and technical experts. As before, research the validity of the suggested changes (except for minor, noncontroversial changes) and present recommended revisions to the CEC Secretariat and CEC Parties based on that research.
12. Revise and adjust the draft technical guidelines based on the feedback provided by the CEC Secretariat and CEC Parties to the recommended revisions presented in item 11. Revise the summary letter to document why suggested changes (except for minor, uncontroversial changes) were or were not incorporated into the second revisions to the draft technical guidelines.
13. Finalize technical guidelines and summary letter based on CEC Secretariat and CEC Parties review of the second, revised draft technical guidelines and summary letter.

The consultant is responsible for providing deliverables of publishable quality and for following the report preparation requirements stipulated below in section III. A. 4.

### **C. Description of Services**

Further to the activities identified under the Statement of Work (see Section II. B above), the consultant will be responsible for submitting the following deliverables at the due dates specified below:

#	Deliverable	Due
1	Provide a list of stakeholder organizations and technical experts in the CEC countries.	One week after contract is signed.
2	Provide a draft table of contents listing the operational-specific and environmental, health and	Two weeks after contract is signed.

#	Deliverable	Due
	safety aspects of collecting and recycling SLABs within a facility setting to be covered by the technical guidelines, describing the planned approach for developing the draft technical guidelines.	
3	Solicit and compile initial recommendations on specific areas listed in the draft table of contents from key stakeholder experts in the collection, transportation, storage, recycling and management of residual wastes of SLABs, and in environmental health and safety aspects related to the collection and recycling of SLABs.	Four weeks after contract is signed.
4	Provide a draft bibliography of national and international literature related to best practices and technologies for SLAB recycling, and real life examples concerning ESM operations in facilities processing SLABs.	Six weeks after contract is signed.
5	Provide initial draft technical guidelines that include elements referenced in items 2-7 of Section II.B above.	Three months after contract is signed.
6	Revise draft technical guidelines based on comments from CEC Party experts and Secretariat.	Four months after contract is signed.
7	Present draft technical guidelines, explain approach used to develop them, and solicit feedback on them during <i>CEC Consultation Workshop</i> to be held in Mexico City in September 2014.	September 2014
8	Based on the stakeholder feedback, compile, research, and make recommendations on possible revisions to the draft technical guidelines.	1 month after CEC Consultation Workshop.
9	Revise draft technical guidelines based on the feedback provided by the CEC Secretariat and CEC Parties to the consultant's recommended revisions in item 8. Prepare a summary letter documenting why or why not changes were made.	12 November 2014
10	When draft technical guidelines and summary letter posted online by the CEC Secretariat, contact the SLAB recyclers and other technical experts identified in item 1 to directly request their review. Compile all written comments submitted during 45-day comment period by private and public stakeholders and technical experts, research the validity of all suggested changes, and present recommended revisions to the CEC Secretariat and CEC Parties based on that research.	<p>Contact SLAB recyclers and technical experts when draft guidelines and summary letter posted online (expected posting on or around 7 January 2015).</p> <p>Present recommendations to CEC Secretariat on 1 April 2015</p>

#	Deliverable	Due
11	Revise draft technical guidelines based on feedback provided by the CEC Secretariat and CEC Parties to the revisions recommended in item 10. Revise the summary letter to document why suggested changes were or were not incorporated into the second revised draft technical guidelines.	6 May 2015  Secretariat and Parties.
12	Provide final technical guidelines and summary letter based on CEC Secretariat and CEC Parties review of the second, revised draft technical guidelines and summary letter.	27 May 2015
13	Participate in monthly conference calls to provide a verbal report on progress and receive feedback from CEC Party experts and Secretariat.	Ongoing after signature of contract and until its conclusion.

#### **D. Periodic Reporting Requirements**

At the outset of the project, the consultant will participate in a “kick-off” meeting with the CEC Program Manager and government officials from the CEC Parties, either in person or through remote conferencing.

The consultant will be expected to participate in monthly teleconference calls with the Secretariat and country government experts. During the calls, the consultant will provide the Secretariat with verbal updates on the status of each of the contractual activities exchange perspectives with country government experts.

Throughout the project, the consultant will work in close collaboration with the Secretariat, government officials and experts to gather information to support delivery of the work. The consultant may consult directly with government officials and other experts as needed. However, the consultant shall report only to, and receive direction only from, the CEC Program Manager (or designate). The CEC Secretariat will forward draft deliverables to government officials and other experts for their review and comment. The consultant is responsible for technical editing of the materials. The materials will be produced in English.

The consultant will work in his or her own offices. Teleconference calls will be organized and coordinated by the CEC Secretariat.

### **III. Requirements and Proposal Evaluation**

#### **A. Mandatory Requirements**

To be eligible for further consideration, all consultants must fulfill the following basic requirements.

## **1. In-country Ability**

The consultant must be domiciled and able to work legally in at least one of the three North American countries. If travel is required, the consultant must possess valid documentation to travel within these countries.

## **2. Key Personnel**

For the purposes of this RFP, the term "consultant" may refer to either a group or company or a single individual.

If a proposal is submitted by a consortium of individuals or institutions, a "lead" consultant should be designated to take responsibility for ensuring overall coordination, the coherence of activity outputs, and the integration of information and ideas.

## **3. Qualifications Required**

The consultant must possess a minimum of 10 years of experience in relevant environmental work and demonstrate competence and recent experience in:

- technical knowledge and/or experience regarding SLABs collection and processing practices, including the use of relevant technologies;
- detailed knowledge of the industry sector that manages SLABs, including stakeholder organizations that should be contacted during the course of this work, and of worker safety and environmental nongovernmental organizations with related expertise that should be contacted;
- best practices for environmentally sound management;
- designing and undertaking surveys and interviews;
- report writing on waste-related issues;
- battery-related research; and
- basic familiarity with NAFTA-CEC goals and objectives.

The consultant must be fluent in both written and spoken English and Spanish; proficiency in French is desirable.

## **4. Quality of Deliverables**

The consultant is responsible for providing deliverables of publishable quality (i.e., copy-edited) in English and, when applicable, for the technical editing of the materials. The consultant will submit to the CEC Secretariat all written material (including complete drafts and final reports) in Microsoft Word, following the format of the CEC's *Report Template* and adhering to the precepts of the *Guidelines for CEC Documents and Information Products*, as supplemented by the CEC's English style guide (attached to the RFP, or available at: <[www.cec.org/Page.asp?PageID=924&ContentID=2697](http://www.cec.org/Page.asp?PageID=924&ContentID=2697)>). Supporting documents for tables, figures and maps will be submitted with the report in their original file format (e.g., Excel or ArcGIS). Note that all amounts shall be presented in metric units. The CEC Secretariat will be responsible, when applicable, for translation, printing, publication and distribution of products from this activity.



## **5. Proposal Submission**

It is the intention of the CEC Secretariat to include the **Terms of Reference (Section II)** of this document) in the contract negotiated with the successful applicant. Therefore, prospective consultants should refer to these for more detailed information on the project and the services to be provided. Prospective consultants are requested not to reiterate the Terms of Reference in their submissions, but are invited to suggest modifications to enhance the proposal.

Proposals should include the following:

- A brief statement of interest and intent. This statement should be based upon and serve to demonstrate the consultant's experience and subject knowledge. The statement should address desired results; guidelines (parameters within which results are to be accomplished); resources (human, financial, technical, or organizational support available to help accomplish the results); and other aspects deemed applicable by the consultant. The purpose of this statement is to demonstrate not only the consultant's general and specific familiarity with the subject area, but also to highlight writing skills;
- A general work plan for carrying out this project;
- Proposed methodology;
- Suggested modifications to the Terms of Reference, and the reasons for such modifications;
- Resumes of the key personnel involved in the project;
- Detailed cost breakdown, including number of person/days of key and other personnel, direct and indirect costs, travel costs and applicable taxes;
- Description of relevant experience and any other relevant information; and
- List of no less than three references.

### **B. Other Information to be Provided**

Potential consultants are encouraged to submit any additional information that they believe will assist the CEC Secretariat in the evaluation of their proposal. However, the proposal should not exceed six (6) pages, exclusive of applicant resumes or corporate brochures.

### **C. Type of Contract to be Used for These Services**

The CEC Secretariat intends to use its standard milestone-based contract for these services. A sample is available upon request. If the contract is negotiated with a consortium, the CEC will offer the consultants the option to have separate contracts between each consultant and the CEC.

All work must be completed by 30 June 2015.

### **D. Selection Procedure**

The consultant will be selected in accordance with the *CEC Consultant Services Procurement Manual*, available at:

[www.cec.org/Page.asp?PageID=122&ContentID=1239&SiteNodeID=217&BL\\_ExpandID=&AA\\_SiteLanguageID=1](http://www.cec.org/Page.asp?PageID=122&ContentID=1239&SiteNodeID=217&BL_ExpandID=&AA_SiteLanguageID=1).

Proposals that the CEC Secretariat determines to be complete will be evaluated according to the procedure described below. Prospective consultants who submit proposals determined by the CEC Secretariat to be incomplete will be so notified in writing.

Each complete proposal submitted will be evaluated by the CEC Secretariat according to the following criteria, with a point rating assigned for each:

<b>Evaluation Criteria</b>	<b>Maximum Point Rating</b>
1. Proposal identifies that the consultant possesses a thorough understanding of the project requirements, and represents a clear, organized and well thought-out approach.	10
2. Proposal includes a clear and suitable description of the methodology to be used and how each of the work items will be achieved.	35
3. Proposal identifies that the consultant possesses appropriate qualifications, experience and competence to undertake this work, including references for follow-up.	20
4. Proposal appropriately allocates budget, consultant time and consultant expertise for each work item.	20
5. Proposal includes elements that are considered to be insightful and value-added components that would be undertaken by the consultant within the identified budget and timeframe for this work.	5
6. Proposal represents best value for money.	10
<i>Total</i>	100

A minimum score of 80 will be required for the prospective consultant's proposal to be eligible for further consideration. Prospective consultants whose proposals score less than 80 will be so notified in writing, together with the reasons for the score. Cost efficiency will be taken into account in the evaluation.

Proposals in response to this request will be evaluated by the CEC Program Manager and designated technical reviewers, who will form an Evaluation Committee. Each member of the Evaluation Committee will receive a copy of the proposals and will be asked to rate each proposal using the evaluation criteria and its maximum point ratings given above.

The CEC Program Manager will arrange for a conference call/meeting among the members of the Evaluation Committee to discuss the ratings, arrive at final scores, and, subsequently, a ranking of all proposals. The strengths and weaknesses of each proposal, in terms of the evaluation criteria, will be noted and summarized. Once the

selection has been made, each prospective consultant will be provided with his/her score—if requested—along with their comparative ranking. However, neither the evaluations nor the scores of other bidders will be provided.

#### **E. Estimated Level of Resources Required**

The budget for this activity is expected to range between C\$120,000 to C\$140,000 (Canadian dollars), including professional fees and expenses.

To facilitate the contracting process, the consultant shall divide the proposed budget breakdown into activities until 30 June 2014, and activities from 1 July 2014, to 30 June 2015, as described in section II-B Statement of Work. Deliverables 1 to 5 must be completed by June 2014; remaining activities must be completed by 30 June 2015.

If a currency other than Canadian dollars is used, the consultant should indicate the total cost of the professional services in Canadian dollars as well as the currency of choice, for comparison purposes.

All communications, including teleconferences, and expert consultation meetings will be supported by the CEC. The consultant should not include the costs of these in the budget to be submitted in the Proposal.

#### **F. Basis of Payment Required**

The consultant will be paid incrementally, with amounts to be determined upon contract approval, upon submission and/or approval of the following deliverables:

- submission of the initial set of draft technical guidelines (deliverable 5);
- submission and approval of the revised set of draft technical guidelines (deliverable 6);
- submission of the revised draft technical guidelines and comment summary, based on feedback from stakeholders, the CEC Secretariat, and experts of the CEC Parties, to the draft technical guidelines presented at the CEC Consultation Workshop (deliverable 9);
- submission of draft revised technical guidelines and comment summary based on stakeholder feedback submitted during 45-day comment period (deliverable 10); and
- submission and approval of the final technical guidelines and comment summary (deliverable 12).

Payment shall be made only for *bona fide* consultant fees and legitimate expenses incurred in accordance with the contract for professional services, and only upon receipt and documented acceptance by the Secretariat of statement(s) of account/invoice(s) from the consultant. Settlement of invoices that are acceptable for payment will normally be made 30 days from the date of receipt by the Commission.

## **G. Financial and Other Confidential Information**

For this proposal, the CEC Secretariat will not require the submission of any confidential information nor will the CEC Secretariat require information regarding insurance, bonding financial status, or company ownership.

## **H. Conflict of Interest**

“Conflict of interest” means, but is not limited to, a situation where a consultant’s personal interest is sufficiently connected with professional duties under the contract, such that it results in a reasonable apprehension that said personal interest may influence the exercise of professional responsibilities under the contract. For example, a direct conflict of interest exists when the consultant is also a CEC government official, or is related to or closely affiliated with a CEC government official, CEC staff member or third party involved with the performance of the services.

The consultant will inform the CEC Secretariat of any circumstance that existed prior to the execution of this contract, or that could manifest during the performance of this contract which could constitute a conflict of interest. The consultant will complete and sign the attached *Declaration of Acceptance and Impartiality and Independence* (see Annex). The Consultant will also take note of the *CEC Consultant Services Procurement Manual*, available at:

[www.cec.org/Page.asp?PageID=122&ContentID=1239&SiteNodeID=217&BL\\_ExpandID=&AA\\_SiteLanguageID=1](http://www.cec.org/Page.asp?PageID=122&ContentID=1239&SiteNodeID=217&BL_ExpandID=&AA_SiteLanguageID=1).

## **I. Deadlines for Proposal Submission and Decision**

The proposal, including all relevant attachments, must be submitted in English and received by the CEC Secretariat offices by **17:00 EST on 19 March 2014**. Proposals submitted after this deadline will not be considered.

Proposals must be submitted via e-mail to [mgarciav@cec.org](mailto:mgarciav@cec.org), with copy to [gsanchez@cec.org](mailto:gsanchez@cec.org). Proposal format may be in Microsoft Word or Adobe PDF format. Once the proposal has been submitted electronically, the CEC will confirm receipt within three business days. If receipt is not confirmed by e-mail within this time, **applicants must contact the CEC**. The contact person is:

Mauricio García Velasco  
Acting Program Manager  
Environmental Law  
Commission for Environmental Cooperation  
Progreso No. 3 Sta. Catarina  
Delegación Coyoacán  
México D.F.04010  
México  
Tel: 514-350-4329/ (+52) 555-659-2587

The CEC Secretariat intends to select the consultant within five (5) working days following the proposal submission deadline. Notification of selections will be made on or about 26 March 2014.

## ANNEX

### CONSULTANT'S DECLARATION OF ACCEPTANCE AND IMPARTIALITY AND INDEPENDENCE FOR CONTRACT

I, the undersigned,

Last Name: \_\_\_\_\_ First Name: \_\_\_\_\_

#### ACCEPTANCE

☐ hereby declare that I accept to serve as consultant in the subject contract.

#### IMPARTIALITY AND INDEPENDENCE

*(If you accept to serve as a consultant, please check one of the two following boxes. The choice of which box to check will be determined after you have taken into account, inter alia, whether there exists any past or present relationship, direct or indirect, with any of the Parties to the North American Agreement on Environmental Cooperation ("NAAEC") or their Commission for Environmental Cooperation ("CEC") representatives, Secretariat staff, and/or third parties involved in the performance of this contract, whether financial, professional, familial, or of another kind and whether the nature of any such relationship is such that disclosure is called for pursuant to the criteria set out below. Any doubt should be resolved in favor of disclosure.)*

☐ **I am impartial and independent** with respect to the NAAEC Parties and their CEC representatives, CEC Secretariat staff, and third parties involved in the performance of this contract, and intend to remain so; to the best of my knowledge, there are no facts or circumstances, past or present that need be disclosed because they are likely to give rise to justifiable doubts as to my impartiality or independence, and that may constitute a conflict of interest.

**OR**

☐ **I am impartial and independent** with respect to the NAAEC Parties and their CEC representatives, Secretariat staff, and/or third parties involved in the performance of this contract, and intend to remain so; **however**, I wish to call your attention to the following facts or circumstances which I hereafter disclose because they might be of such a nature as to give rise to justifiable doubts as to my impartiality or independence, and that may constitute a conflict of interest. Where facts or circumstances exist that might give rise to the latter such doubts, I may set out measures I intend to take to mitigate or eliminate any doubts regarding my impartiality and independence, and/or a possible conflict of interest. (Use separate sheet and attach.)

Date: \_\_\_\_\_

Signature: \_\_\_\_\_