

**PROJECT NAME: Scoping: Uptake of Best Practices for Environmentally Sound Management of Spent Lead Acid Batteries**

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1. **Project duration: December 2025 to December 2027 (12 months)**
2. **Budget (C\$): \$50,000**
3. **Short statement of the issue(s) under this topic, need/gap identified; the project objective(s) and activities to address the issue; and expected outcomes and benefits/beneficiaries (max. 200 words):**

Spent lead-acid batteries (SLABs) are a major source of lead for production inputs and potential environmental releases in North America. The 2013 CEC Secretariat Study, *Hazardous Trade? An Examination of US-generated Spent Lead-Acid Battery Exports and Secondary Lead Recycling in Canada, Mexico, and the United States* revealed that levels of environmental and public health protection and the regulatory frameworks covering secondary lead smelters across the region did not provide equivalent levels of environmental and health protection. Following this study, the CEC implemented the project, *Environmentally Sound Management of Selected End-of-Life Vehicle Batteries, Including Spent Lead-Acid Batteries (SLABs), in North America*, which developed technical guidelines on Environmentally Sound Management (ESM) practices for secondary lead smelters and other facilities that process SLABs, as well as recommendations for the environmentally sound management of end-of-life batteries from electric-drive vehicles. These guidelines, published in 2015 and 2016, were intended to support decision-makers considering the implementation of measures to enhance protection of workers and communities from lead emitted during the recycling of SLABs, by disseminating environmentally sound management practices.

The project will survey the adoption of the CEC Guidelines on ESM of SLABs and collect information on current SLAB management practices and actions to reduce lead emissions. The information collected will provide insights into the long-term impact of past CEC projects and activities on this topic, and recommendations on how to best disseminate ESM practices information to relevant actors.

**4. Select the strategic pillar(s) from the 2021-2025 Strategic Plan that the project addresses:**

- Clean Air, Land and Water
- Preventing and Reducing Pollution in the Marine Environment
- Circular Economy and Sustainable Materials Management
- Shared Ecosystems and Species
- Resilient Economies and Communities
- Effective Enforcement of Environmental Laws

**5. Describe how the project uses strategic cross-cutting approaches in its implementation: Innovative and Effective Solutions and/or Diverse and Inclusive Stakeholder Engagement and Public Participation (including gender and diversity effects and opportunities, and youth) (max 100 words).**

To assess the uptake of the CEC Guidelines on the Environmentally Sound Management of SLABs, the scoping study will include a survey that will involve the participation of recyclers, technical experts from industry, government and nongovernmental organizations (NGOs) from the three countries.

The information derived from the project will support the implementation of environmental sound practices for lead recovery operations and their integration in the SLABs recycling supply chain.

**6. Explain how the project can achieve more impact through tri-national cooperation (max 100 words):**

The manufacturing, collection and recycling of lead-acid batteries is highly integrated across North America, where several companies operating in the three countries have established continental supply chains involving various stages of the battery manufacturing and recycling process; therefore, a trinational approach is the best option to achieving the desired results. North American collaboration on this topic has taken place through the CEC since 2003.

**7. Describe how the project complements, or avoids duplication with, other national or international work (max 100 words):**

The Basel Convention is currently updating technical guidelines on the environmentally sound management of waste lead-acid batteries, under the leadership of the Small Intersessional Working Group (see “Development of WLAB TGs”). The revised guidelines are expected to be presented at the eighteenth Conference of the Parties, tentatively scheduled for April 2027. This project would

bring forward useful information that could be integrated into the work of the Basel Convention and complement it. Likewise, the information gathered through this project will complement the findings and recommendations of the 2024 United States Agency for International Development (USAID) Used Lead-Acid Batteries (ULAB) Recycling Assessment Report that pertain to Mexico. While there may be some overlap in guidance, such as recommendations on handling, sorting, and overall management steps, this project will be an opportunity for alignment and reinforcement of best practices.

**8. Describe how the project engages traditional ecological knowledge (TEK) experts or Tribal/First Nations/Indigenous communities, if applicable (max. 100 words):**

Some Indigenous organizations in Canada and the United States are involved in fostering and improving waste management practices of SLABS, therefore, could be potentially engaged in the project activities. In Mexico, small communities carry out informal recycling activities for the secondary recovery of lead, and the aim is to integrate these communities into the recycling chain for this type of waste.

**9. Describe how the project engages new audiences or partners, if applicable (max 100 words):**

Survey data collection activities for portions of the project will provide an opportunity to engage new audiences and partners involved in the SLAB recycling sector in the three countries.

**10. Identify the designated partner agencies or organizations committed to implementing this project, as well as other organizations that could be involved, or benefit from it, including through outreach efforts, collaborations or partnerships (e.g.: federal agencies; other levels of government; academia; NGOs; the private sector; civil society; and youth):**

Lead agencies or organizations	Country
Environment and Climate Change Canada (ECCC)	Canada
<i>Secretaría de Medio Ambiente y Recursos Naturales</i> [Secretariat of Environment and Natural Resources– Semarnat] <i>DGGIMAR–Dirección General de Gestión Integral de</i> <i>Materiales y Actividades Riesgosas</i> [General Directorate	Mexico

<b>for Comprehensive Management of Hazardous Materials and Activities]</b>	
<b>United States Environmental Protection Agency</b>	<b>United States</b>

<b>Other organizations/individuals (if applicable)</b>	<b>Country</b>
Lead-acid battery manufacturers, recycling industry associations, Extended Product Responsibility management organizations and others, as well as related organizations from the three countries.	<b>United States, Canada and Mexico</b>

**11. In the following table, describe: the project objective(s) and the activities and subtasks planned to achieve the objective(s); the corresponding outputs, expected results and how they will be measured (performance measures); baselines (if known), and targets by end of the project; and the timeline and budget.**

<b>OBJECTIVE 1</b>	Assess uptake of CEC Guidelines on Environmentally Sound Management (ESM) of SLABs and collect information on current SLAB management practices and actions to reduce lead emissions of the three countries
<b>Activity 1 Budget</b>	Conduct survey on ESM of SLABS
<b>Output(s)</b>	<ul style="list-style-type: none"> <li>- <b>Survey instrument</b></li> <li>- <b>Documentation of survey results presenting uptake of CEC Guidelines and current practices on ESM of SLABS</b></li> <li>- <b>Recommendations on how to best disseminate information on ESM practices to relevant actors</b></li> </ul>
<b>Expected results, performance measures</b>	<ul style="list-style-type: none"> <li>- <b>Percent of establishments surveyed adopting ESM practices as a result of the CEC Guidelines work</b></li> </ul>
<b>Baseline (current status), if known</b>	Not applicable

<b>Target (by project end)</b>	Not applicable	
<b>Sub-task 1.1</b>	Define target survey sample and outreach strategy. Sources of information to define the sample include: the list of the October 2014 CEC Workshop of SLAB recyclers to gather feedback on draft guidelines for the Environmentally Sound Management of SLABs, establishments engaged in SLABs recycling that report to the North American Pollutant Releases and Transfers Programs (TRI, NPRI, RETC)	When: Months 1 to 2
<b>Sub-task 1.2</b>	Design survey instrument and strategy for implementation. Survey design involves several steps including: defining the purpose of the survey, identifying target population, sampling strategy, survey method, question design (what will be asked and how), in-house pre-testing and establishing confidentiality protocols.	When: Months 2 to 6
<b>Sub-task 1.3</b>	Conduct online survey	When: Months 6 to 7
<b>Sub-task 1.4</b>	Analyses and documentation of survey results, including recommendations on potential updates and how best to disseminate ESM practices information to relevant actors.	When: Months 7 to 10
<b>Sub-task 1.5</b>	Dissemination of survey results	When: Months 10 to 12

**12. Describe post project expected impacts:**

<b>Expected impact (by when: month, year)</b>	<b>SMART performance measure(s)</b>
- Increased awareness of ESM LAB recycling practices (by September 2026)	Number of SLAB recycling facilities aware of CEC Guidelines for ESM LAB recycling