



ReMA Board Approved: February 27, 2025

## **ReMA Position on Non-Embedded Small and Medium Format End-of-Life Battery Management**

Lithium-ion and other rechargeable batteries have become part of everyday life; they're in our phones, laptops, watches, headphones, small appliances used around the house and other wearable and personal electronics. Electric mobility batteries in e-bikes and scooters are a common sight in cities, and fully electric vehicles and hybrids are growing their market share each year.

Most consumers are not aware of the safety, fire, and insurance risks posed by improperly manufactured, charged, stored, damaged or discarded rechargeable batteries and battery-containing devices, (particularly lithium-ion batteries). Improper handling of batteries poses risks that extend well beyond the health and safety of households where they are used. The health and safety risks are realized daily by recycling and waste employees, collection vehicles, and operations especially when batteries are improperly placed into recycling and waste streams. Batteries that enter such streams may be extremely difficult to detect posing special challenges for fire suppression and containment. Such detection challenges include, among others, smoke, toxic gases, risk of fire and even explosion until a such battery is fully discharged. These incidents can result in injuries to employees, costly damages to equipment, facilities and vehicles resulting in increased insurance liability for impacted operations, and disruptions to supply chains.

All batteries and battery-containing products require specialized electronics, automotive, and/or battery recyclers to properly disconnect, transport, and prepare the batteries for reuse, repurposing, or recycling. If these batteries do not reach these specialized recyclers, the batteries shift from a valuable resource and source for the recovery of critical minerals and other recyclable materials to a health and safety risk to the public, first responders, recycling and waste employees, and infrastructure.

In an attempt to address these risks, states are considering end-of-life battery management legislation for small, medium, and large format batteries, and battery-embedded devices. Some proposals have raised concerns among the recycled materials industry that these proposed programs fail to properly educate the public and first responders on collection, handling, and safety issues, and/or fail to address detection and infrastructure protections necessary for those batteries that are not captured by the programs and lastly block market access by electronics and battery recyclers.

The industry acknowledges the importance of efforts to address facilitation of the safe, economically sustainable, and environmentally responsible recycling of difficult to recycle items - such as non-embedded small and medium format batteries. Such efforts should not disrupt the current recycling infrastructure for materials or products that are being successfully recycled and consumed in existing markets.

Battery stewardship programs must prioritize the responsible end-of-life management of all collected materials, while advancing safety and environmental priorities. ReMA supports policy measures which facilitate and increase collection, safety, and proper end-of-life management of non-embedded small and medium batteries including reuse and recycling. Such efforts should contain and align with the following principles:

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- **Consumer Education and Outreach** must be prioritized to ensure public safety, responsible recycling, and ongoing community engagement.
- **Funding** paid for by the producers of the battery or battery-containing product, covering collection, transportation, processing, and public education, as well as an infrastructure assessment to guide safety and detection investments.
- **Battery Stewardship Organizations (BSOs)** should operate in coordination and with state oversight to arrange for the collection and recycling of battery formats they represent.
- **Independent Collection and Management of Batteries by Recyclers** should not be restricted if collection is recorded and reported, and batteries are responsibly managed according to the law.
- **Covered Battery Formats** have different requirements for safe and responsible collection, packaging, transport, and processing that should be accounted for, and collectors should not be required to handle formats they are not properly trained and equipped to handle.
- **State Oversight** in coordination with a stakeholder Advisory Committee should ensure against flow control and market access imbalances and ensure confidential and secure data reporting to the state or a third party, non-vested entity.
- **Design for Recycling** must be encouraged for battery manufacturers and producers so that batteries can be safely used by consumers and reused, repurposed, or recycled at end of life.
- **Civil Actions and Penalties for Improper Disposal** should be included for grossly negligent or knowing actions by commercial entities, and BSOs should provide collection from recyclers receiving batteries they cannot accept.

Other ReMA Positions with overlapping principles to end-of-life battery management include:

- [ReMA Right to Reuse Position](#)
- [ReMA Policy on Free and Fair Trade](#)
- [ReMA Position on Flow Control](#)
- [ReMA Position on Product Stewardship](#)
- [ReMA Position on Design for Recycling – Promoting Environmental Sustainability](#)
- [ReMA Position on Beverage Container Deposit Legislation](#)