



February 26, 2025

Health and Human Services Committee  
Colorado State Legislature

**RE: Redwood Materials Oppose Unless Amended - SB 25-163 -Concerning the establishment of battery stewardship programs for the disposal of certain batteries**

Dear Chair Mullica, Vice Chair Jenet and Members of the Health and Human Services Committee,

**We write with urgent concern regarding SB 25-163, Concerning the establishment of battery stewardship programs for the disposal of certain batteries. While we support the bill's intent to promote safe, responsible battery recycling, we must oppose this bill unless amended.** We believe SB 25-163 risks stifling effective, market-driven solutions by monopolizing battery collection through third-party entities that do not actually recycle the materials they receive. We advocate for a stewardship model that upholds the proposed collection framework yet integrates and strengthens both Colorado recyclers and America's domestic battery recycling industry.

At Redwood, we are developing the first U.S.-based closed-loop supply chain for lithium-ion batteries, encompassing collection, recycling, and re-manufacturing batteries into high-value components like cathode materials. Our goal is to support Colorado and the nation's transition to sustainable energy by achieving recycling rates above 95% and substantially reducing both the carbon footprint and cost of producing new batteries. We do not manufacture batteries ourselves but instead provide—and partner with—consumer-facing and industry collection programs to ensure these materials are recovered and reintroduced into a domestic supply chain, lowering reliance on foreign sources.

A strong EPR program can build on the private sector's success while expanding collection and consumer education efforts. Together, we are capturing unwanted end-of-life batteries and refine them into critical battery materials to meet emerging domestic production and recycled content needs. However, the proposed language in SB 25-163 could limit the ability of recyclers like Redwood to directly acquire feedstock through diverse collection channels and partnerships, thereby undermining an essential piece of the closed-loop ecosystem.

Stewardship organizations and recyclers are not mutually exclusive; an effective EPR framework should harness the expertise and broad reach of both. By reinforcing existing and future battery collection pathways, banning the landfilling of batteries, and promoting robust consumer awareness, SB 25-163 can help ensure greater battery recovery rates and improved public safety. We therefore ask that you consider our proposed amendments, outlined below, which we strongly believe will advance Colorado's environmental, economic, and clean energy goals.

To address these concerns and fully realize the potential of Colorado’s recycling infrastructure, we respectfully propose the following amendments. Each is designed to integrate and strengthen the stewardship model, driving higher recovery rates, safer handling, and a more robust circular economy for batteries.

**Our proposed amendments include:**

**1. Define “Specialized Battery Recycler” and Require Battery Stewardship Programs to Coordinate with Specialized Battery Recyclers for End-of-Life Management of Lithium-Ion Batteries**

To address the unique safety, environmental, and material-recovery considerations of lithium-ion batteries, SB 25-163 should explicitly define “specialized battery recyclers”—entities with the expertise and technology required to process these batteries responsibly. The bill should also acknowledge the important roles of other recycling stakeholders, such as electronic waste recyclers, who often encounter lithium-ion batteries and may partner with specialized battery recyclers like Redwood Materials for safe and efficient downstream processing.

Critically, the legislative framework should require battery stewardship organizations to partner with specialized battery recyclers for the end-of-life management of collected batteries, rather than merely collecting them without ensuring full recycling. By holding stewardship programs to the same standards as the private sector, Colorado can guarantee that recovered materials are truly reintroduced into a domestic, closed-loop supply chain—lowering reliance on foreign sources of critical minerals, reducing clean energy costs, and advancing the state’s sustainability goals.

**2. Allow Direct Collection and Inventory Ownership by Specialized Battery Recyclers and Electronic Waste Recyclers**

Recyclers should be permitted to collect batteries directly from consumers and maintain inventory of those batteries especially if they are covering their own collection and logistics costs, as well as reporting required data to the state. Unfortunately, the current draft of SB 25-163 lacks the clarity recyclers need to continue operating independently and retain ownership of collected materials. By enabling recyclers to establish direct collection pathways for consumers, Colorado benefits from a more streamlined and efficient recycling process that boosts convenience, increases recycling rates, and ensures safety and environmental compliance. Most importantly, this approach complements—rather than competes with—the proposed battery stewardship program by preserving an important avenue for market-driven innovation when we all agree that collection rates need to increase drastically.

The recycling industry is a major economic force in Colorado, with metal recyclers alone generating an estimated \$1.3 billion in economic impact and supporting over 5,600 jobs statewide. Recognizing the essential role of electronic waste recyclers and specialized battery recyclers within the broader recycling ecosystem is paramount. These entities are not “free riders” on any stewardship program; on the contrary, they do not produce batteries but instead provide a vital public service by processing and recovering battery materials that would otherwise be landfilled. Through partnerships with downstream

innovators like Redwood Materials, recyclers capture used batteries at the end of their life cycle and refine them into new materials, bolstering both sustainability and economic growth.

### **3. Remove the Mandatory Material Forfeiture Provision**

A key concern arises from the language on page 39, line 13, stating:

*“(b) THE PERSON SHALL MAKE AVAILABLE ALL BATTERIES COLLECTED FROM THE PERSON’S COLORADO CUSTOMERS TO A BATTERY STEWARDSHIP ORGANIZATION;”*

This provision effectively mandates material forfeiture, undermining market-based collection programs and leaving companies like Redwood Materials at a severe competitive disadvantage. Such a requirement disincentivizes proven, efficient collection methods that already capture large volumes of batteries. Removing or amending this clause will preserve and strengthen Colorado’s existing recycling infrastructure, ensuring continued innovation and the economic benefits that come with high-value materials recovery.

### **4. Provide Retailers with a Choice in Which Batteries They Collect and How They Collect Them**

Under SB 25-163, retailers may opt to serve as collection sites within the Extended Producer Responsibility (EPR) program. To truly encourage participation and increase battery recovery rates, the bill should explicitly allow retailers to select which battery sizes or formats they collect, aligning with the types of batteries they sell. For instance, medium-format batteries—such as those used in certain power tools or electric bikes—often serve a highly specialized customer base that may be brand-loyal. Allowing retailers to focus on these specific battery types can improve collection efficiency and effectiveness.

Additionally, retailers should have the option to form direct partnerships with specialized battery recyclers or electronic waste recyclers, rather than being limited to designated battery stewardship organizations. This flexibility in what, and how, retailers collect batteries can expand the number of collection points by empowering businesses that might otherwise opt out to develop programs reflecting their unique product lines and consumer needs. By tailoring collection efforts to individual business models, retailers are more likely to participate, foster innovation in recycling logistics, and offer greater convenience for consumers.

### **5. Do Not Restrict Battery Stewardship Organizations to Only Nonprofit Entities**

Limiting stewardship organizations exclusively to nonprofits can hinder competition, stifle innovation, and reduce the overall effectiveness of Colorado’s battery recycling efforts. Allowing both for-profit and nonprofit entities to form stewardship organizations helps draw on a broader range of expertise, funding opportunities, and operational models—ultimately strengthening the recycling ecosystem. By diversifying the types of organizations eligible to oversee end-of-life battery management, the state ensures it does not rely too heavily on a narrow pool of organizations, increasing resilience and improving long-term outcomes for consumers, recyclers, and the environment alike.

## 6. Exclude Medium-Format Batteries from the Bill Requirements

Medium-format batteries, typically lithium-based, differ significantly from small-format batteries in both distribution and handling. Since lead-acid batteries are already exempted under SB 25-163, producers of exclusively lithium batteries should not be required to fund a system primarily designed to manage less valuable chemistries like alkaline or nickel cadmium.

At end-of-life, medium-format batteries must be handled, packaged, and shipped only by personnel trained to manage fully regulated dangerous goods. Because these larger batteries are not expected to be accepted at every collection site, they naturally constitute a separate classification. Developing specific policies for medium-format batteries—as opposed to simply delaying their inclusion in this bill—allows for safer, more targeted solutions that reflect existing industry practices.

Moreover, medium-format batteries tend to be found in products with strong brand loyalty (e.g., outdoor power equipment, boat and RV batteries, electric bikes). A dedicated approach enabling producers, distributors, and recyclers to work together on tailored strategies can avoid unnecessary complexity, reduce administrative costs for both the state and industry, and ensure that medium-format batteries are recycled safely and efficiently.

We remain firmly committed to keeping smaller-format batteries out of landfills and advancing a robust battery recycling ecosystem. However, a narrowly prescribed framework under SB 25-163 risks stifling the innovative approaches already driving high recovery rates and quality recycling outcomes. We therefore urge you to amend SB 25-163 to incorporate these essential changes—aligning the bill with the realities of modern end-of-life battery management, evolving recycling technologies and collection methods, and the nation’s clean energy and recycling goals.

Thank you for your consideration of our testimony and recommendations.



**Ashley Seaward**

Manager of State Policy & Government Relations

Redwood Materials

[ashley.seaward@redwoodmaterials.com](mailto:ashley.seaward@redwoodmaterials.com)



# PRODUCT STEWARDSHIP INSTITUTE

Scott Cassel  
**Chief Executive Officer/Founder**

## Board of Directors

Abby Boudouris – **President**  
*OR Dept. of Environmental Quality*

Tom Metzner – **Vice President**  
*CT Dept. of Energy and  
Environmental Protection*

Jennifer Semrau – **Treasurer**  
*WI Dept. of Natural Resources*

Christina Seibert - **Clerk**  
*Solid Waste Agency of Northern Cook  
County, IL*

Seth Hackman  
*New Jersey Department of  
Environmental Protection, NJ*

Jennifer Heaton-Jones  
*Housatonic Resources Recovery  
Authority, CT*

Jennifer Holliday  
*Chittenden Solid Waste District, VT*

Mallory Anderson  
*Hennepin County, MN*

Mia Roethlein  
*VT Dept. of Environmental  
Conservation*

Patrick Riley  
*OK Dept. of Environmental Quality*

## Honorary Director

Walter Willis  
*Solid Waste Agency of Lake County, IL*

Scott Klag  
*Retired, formerly Metro, OR*

Racheal Ajayi  
*Formerly MO Dept. of Natural  
Resources*

February 25, 2025

Senator Kyle Mullica, Chair  
Senator Dafna Michaelson Jenet, Vice Chair  
Senate Health & Human Services Committee  
Old Supreme Court  
200 E. Colfax Ave  
Denver, CO 80203

## RE: SB 163, Battery Stewardship Act

Dear Chair Mullica, Vice Chair Jenet, and Members of the Committee:

Thank you for the opportunity to submit testimony in **strong support** of SB 163, which will establish a producer funded and managed stewardship program in Colorado for the collection and recycling of used primary and rechargeable portable and medium format batteries – a large majority of the batteries used by consumers today.

Americans generate more than 3 billion used batteries each year, but just 15% of rechargeable batteries and an even smaller percentage of single-use batteries are recycled. In landfills, batteries can release hazardous materials like mercury and lead into the environment. By ensuring the proper collection and recycling of batteries, SB 163 will prevent pollution.

Lithium-ion batteries, which are used in a growing number of products, have sparked fires in trucks and at recycling and waste facilities that have caused millions of dollars in damage, worker injuries, and tragic deaths. SB 163 would ensure sustainable funding for safe collection and recycling processes that reduce the incidence of fires, which increase insurance rates for businesses, especially at recycling facilities, transfer stations, and other solid waste management facilities.

Batteries also contain valuable materials such as steel, manganese, and zinc that are mined using energy-intensive processes that emit greenhouse gases. SB 163 will ensure the recovery of these valuable resources for use as feedstock in new batteries and other products, thereby reducing the need for mining and associated greenhouse gas emissions. This bill would also benefit battery recyclers and manufacturers by providing a continuous flow of high-quality material that allows for long-term investments in local recycling and manufacturing facilities, thereby creating jobs.

Sustainable funding provided through SB 163 will also reduce the financial burden on local governments that, in the absence of a stewardship program, would bear the financial and managerial costs of battery management.

**SB 163 contains many of the best practices found in all successful battery stewardship laws, including:**

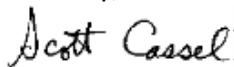
- Minimum convenience standards to ensure convenient access to the program statewide;
- Performance goals for collection rates, recycling efficiency rates, and public awareness;
- Requirements to renew the plan every five years, which allows for improvement based on lessons learned from implementation and to adapt to changes as the program matures;
- Public awareness through education and outreach requirements;
- Requirement that producers finance the program through cost-internalized mechanisms, rather than consumer fees;
- Annual reporting and transparency;
- Financial compensation to local government collection sites for the cost of collection;
- Funding for the State to oversee and enforce the law;
- Penalties for noncompliance with the law; and
- A study of the opportunities and challenges of end-of-life management of batteries, including embedded batteries and their potential for inclusion in the program. Importantly, the study will be paid for and conducted by the battery stewardship organization in consultation with the State and key stakeholders. Finally, the State will submit the study to the legislature.

Since 2014, Vermont, the District of Columbia, California, Washington, and Illinois have enacted battery extended producer responsibility (EPR) laws similar to SB 163. In the 2025 session, many other states are pursuing similar legislation. It is time for Colorado to add batteries to their list of EPR laws that have produced enormous benefits for residents and businesses in the state.

The Product Stewardship Institute (PSI) is a national policy expert and consulting nonprofit that pioneered product stewardship in the United States along with our members – hundreds of state and local government officials, including those in Colorado – and our partners from companies, environmental groups, academia, and international governments. Since 2000, PSI’s facilitated dialogues, research, pilot projects, and policy models have helped shape most of the 141 EPR laws enacted for 20 industry sectors in 33 states.

I respectfully urge you to support **SB 163** for the financial, environmental, and safety interests of Colorado’s economy and communities. If you have any questions, please feel free to contact me at (617) 236-4822, or [Scott@ProductStewardship.US](mailto:Scott@ProductStewardship.US).

Sincerely,



Scott Cassel  
Chief Executive Officer/Founder