



February 14, 2025

Dear Senator Augustine and members of Education, Energy, and the Environment Committee,

We are reaching out with urgent concern over **SB 0686, Extended Producer Responsibility for Batteries and Battery-Containing Products (Battery Stewardship Act)**. We support the intent of this legislation— to enhance the collection and recycling of end-of-life batteries, prevent them from ending up in our waste streams and landfills, and ensure the recovery of critical minerals and metals they contain – **but we must oppose this bill unless amended.**

As currently drafted, the bill risks stifling innovative collection methods and creating a monopoly by limiting battery collection to third-party entities that do not actually recycle what they collect. We advocate for a stewardship model that not only upholds the proposed collection framework but also robustly integrates and supports both Maryland recyclers and America’s domestic battery recycling industry.

At Redwood, we are building the first U.S.-based closed-loop supply chain for lithium-ion batteries, which involves the collection, recycling, and re-manufacturing of batteries into critical components like cathode materials. Our efforts are designed to support Maryland and the nation’s transition to sustainable energy and accelerate electric vehicle adoption, achieving recycling rates above 95% and substantially reducing the carbon footprint and cost of batteries.

We are actively innovating processes that drastically reduce the environmental impact of battery material production and enhance our national capabilities in managing end-of-life batteries on a large scale.

Key Achievements:

- Redwood’s facility is the **United States' first nickel “mine” and only commercial-scale lithium source to come online in decades.** Unlike traditional mining projects that often take over a decade to become operational, we built and activated our facility in less than a quarter of the time.
- **Energy and Resource Efficiency:** Compared to traditional methods of processing mined ore into battery-grade materials, our approach is significantly more sustainable. Redwood uses 80% less energy, generates 70% less CO2 emissions, and requires 80% less water, setting new standards in resource efficiency. Additionally, nothing goes to landfill, and all processed water is recycled (except for basic sanitary waste).
- **The most sustainable recycling process:** According to an independent lifecycle analysis by Stanford University, our process achieves at least 40% fewer emissions than other recyclers. What’s more—it’s scalable. We can process over 40,000 metric tons (about 15-20 GWh) annually and are expanding by the day.

In line with the nation's clean energy ambitions –supported by a domestic battery supply chain— effective recycling policies can champion environmental stewardship and public safety while capturing and prioritizing necessary recycled feedstock for domestic battery production. Redwood Materials contributes to these goals by offering free, convenient, and widely accessible collection pathways for unwanted consumer batteries nationwide. Unlike manufacturers, we do not produce batteries but play a critical role in their proper management and eventual recycling. In addition to offering direct collection pathways to consumers, specialized battery recyclers like Redwood are working across the materials supply chain by partnering with electronic waste and metal recyclers to properly manage and recycle the valuable battery materials they collect.

An expanded EPR program as proposed should harness what the private sector is already achieving in this space while also promoting increased collection via the stewardship model. Collectively, we are not only capturing unwanted end-of-life batteries, but in turn, refining and remanufacturing them into battery materials to support American battery and automotive manufacturers in meeting domestic recycled content requirements. This crucial support will be hindered if recyclers like Redwood are limited in their ability to directly acquire feedstock through various, mutually beneficial channels, and in partnership with local recyclers.

Stewardship organizations and recyclers are not mutually exclusive, and we are advocating for a model that captures the reach and expertise of both while also banning the landfilling of batteries, encourages consumer education, and increases collection pathways. Given the immense scope of the challenge of uncollected or improperly discarded batteries posing public and environmental health and safety risks— existing and future collection programs will only complement the collection efforts required by SB 0686.

The provisions of SB 0686, should foster, not hinder, the continuation and expansion of existing and future battery collection efforts, whether these are conducted under a stewardship program or directly. We, therefore, please ask that you consider our proposed amendments to this bill, below. We strongly believe that the adoption of these amendments will lead to greater battery recovery rates throughout the state and improved safety for all.

Our proposed amendments include:

1. Define "Specialized Battery Recycler" and "Electronic Waste Recycler" and Require Utilization of "Specialized Battery Recyclers" for End-of-Life Management of Batteries

To embody the complete spectrum of e-waste and end-of-life battery management, this bill should define "specialized battery recyclers" and "electronic waste recyclers". This ensures that existing e-waste recyclers and full-service or “specialized” battery recyclers, are formally acknowledged within the bill, securing their role in advancing state recycling goals.

Requiring battery stewardship organizations to work with a specialized battery recyclers for the end-of-life management ensures that batteries will be managed responsibly and used to support a domestic, closed loop battery supply chain by recovering valuable materials, reducing reliance on foreign sources, lowering clean energy costs, and supporting sustainability goals.

2. Allow Specialized Battery Recyclers and Electronic Waste Recyclers to Collect Outside of a Battery Stewardship Organization and Maintain Inventory of the Batteries They Collect

Recyclers should be allowed to collect batteries from consumers and maintain inventory of those batteries if they are paying for collection and transportation and provide necessary data to the state. This bill does not provide the clarity needed for recyclers to continue collection and maintain inventory. By enabling recyclers to provide direct pathways to consumers, we facilitate not just collection but also more streamlined and efficient recycling of batteries. This approach enhances consumer convenience, increases recycling rates, and ensures safety and environmental compliance, all while encouraging the proposed stewardship program.

3. Provide Retailers with Choice in Collection Methods

Retailers should be able to partner directly with specialized battery recyclers or electronic waste recyclers rather than being limited to battery stewardship organizations. This flexibility would increase collection points, encourage innovation in recycling logistics, and improve convenience for consumers. By tailoring collection efforts to their business models, retailers could boost participation and reduce reliance on stewardship organizations.

4. Do Not Limit Battery Stewardship Organizations to Only 501c3 Non-Profits

Battery stewardship organizations should not be limited to only non-profit organizations. Limiting to non-profit organizations for the management of end-of-life batteries can hinder competition, stifle innovation, and limit the overall effectiveness of the program. By allowing for a diverse set of battery producer responsibility organizations (both for-profit and non-profit) that represent multiple producers can help build a more reliant recycling system through increased participation and investment as well as ensures that the program does not rely too heavily on a limited pool of organizations.

5. Exclude Medium-Format Batteries from This Bill

Medium-format batteries pose unique safety and infrastructure challenges. Managing them separately from small-format batteries allows for clearer policies, industry-specific solutions, and safer, more effective recycling. Excluding these batteries from the bill aligns with existing industry practices and avoids unnecessary complexity.

We urge you to amend SB 0686 to include these crucial additions, aligning the bill with the realities of modern end-of-life battery management, evolving recycling technologies and collection approaches, while bolstering national clean energy and recycling targets.

Sincerely,

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