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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Monday, February 10, 2025

1:01 PM

State Capitol, Conference Room 224 and Videoconference

Providing Comments on
SB 391

RELATING TO RECYCLING.

Chair Gabbard, Vice Chair Richards, and Members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on SB 391 which expands the Electronic Device Recycling and Recovery Act to include the collection and recycling of certain lithium-ion batteries, requires manufacturers of lithium-ion batteries to recycle or arrange for the recycling of lithium-ion batteries sold in the State, and ensure the safe collection, storage, transportation, and recycling of batteries. HSEO defers to the appropriate agency regarding implementation.

The HSEO appreciates the intent of this bill. Extended producer responsibility (EPR), when adapted to meet Hawaii's specific needs, offers a promising approach for end-of-life (EOL) lithium-ion battery (LIB) management. This policy framework has proven effective in encouraging a circular economy and closed-loop system. As battery materials are derived from limited natural resources, EPR's focus on proper end-of-life management provides a pathway to keep these materials circulating in the battery economy.¹ By shifting responsibility from consumers to producers, EPR encourages recycling and reuse, benefiting the battery ecosystem, particularly given that the initial extraction of critical materials in some areas have raised human rights concerns.

¹ Product Stewardship Institute, *What is extended producer responsibility (EPR)?*
(<https://productstewardship.us/what-is-epr/>)

The Hawai'i Natural Energy Institute, under the leadership of Dr. Michael Cooney, has conducted extensive research to determine appropriate policy frameworks for Hawai'i's unique context, resulting in three comprehensive reports published in 2022, 2023, and 2024.² The first two legislative reports acknowledged LIBs as the primary technology for electric vehicles and energy storage systems in Hawai'i. With growing demand comes an increased need for disposal and recycling options. These batteries pose both chemical and electrical hazards, including risks of fire and hazardous material leakage. While Hawai'i currently manages LIBs as universal waste, some states are proposing restrictions. When repair and reuse aren't viable, recycling is preferred, despite high shipping costs to mainland facilities. Potential profits from material recovery show promise.

Given the regulatory environment for EOL lithium-ion battery management, it's crucial to construct legislation that can succeed in this context. The Institute's most recent report recommended several key actions: developing a state-wide processing plan, establishing local pre-processing facilities, creating stewardship programs, implementing better tracking systems for imports and exports, developing multiple disposal pathways, and waiting for larger markets to establish EPR before implementing similar measures.

Considering this ongoing progress, HSEO recommends forming a working group rather than immediate legislative action. We suggest using language from SB 103 as a reference for establishing working group goals, focusing on:

1. Best practices for EOL lithium-ion battery management

² Hawai'i Natural Energy Institute (HNEI), three reports:

2022: *Final Report to Provide Recommendations on Waste Management of Clean Energy Products in Hawai'i to the 2023 Legislature under Act 92 and HB 1333*, December 2022

(<https://www.hnei.hawaii.edu/wp-content/uploads/2023-HNEI-Act92-Final-Report-Clean-Energy-Products-Waste-Management.pdf>);

2023: *Policy Recommendations on Waste Management of Clean Energy Products in Hawai'i – Supplemental Report to the Hawai'i State Legislature in Accordance with HB1333*, December 2023

(<https://www.hnei.hawaii.edu/wp-content/uploads/HNEI-Act92-Supplemental-Report-Clean-Energy-Products-Waste-Management.pdf>);

2024: *Waste Management of EOL PV Panels and LIBs in Hawai'i*, December 2024

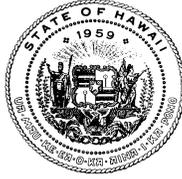
(<https://www.hnei.hawaii.edu/wp-content/uploads/Waste-Management-of-EOL-PV-Panels-and-LIBs-in-Hawaii.pdf>).

2. Cost, safety, and environmental impact comparison of in-state versus out-of-state recycling options
3. Feasibility of pursuing recycling options outside the United States
4. Cost analysis, infrastructure assessment, and enforcement considerations for a lithium-ion battery recycling program
5. Environmental impact assessment of different management practices

Due to distinct regulatory and programmatic requirements, we recommend separate working groups for electric vehicle batteries and non-electric vehicle batteries.

Additionally, we find the Department of Health to be a crucial collaborator in this effort.

Thank you for the opportunity to testify.



STATE OF HAWAII
DEPARTMENT OF HEALTH
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**Testimony COMMENTING on SB0391
RELATING TO RECYCLING.**

SENATOR MIKE GABBARD, CHAIR
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT

February 10, 2025; 1:01 PM; Room Number: 224

1 **Fiscal Implications:** Undetermined.

2 **Department Position:** The Department of Health (“Department”) offers the following
3 comments on this measure.

4 **Department Testimony:** The Environmental Management Division Solid and Hazardous Waste
5 Branch (EMD-SHWB) provides the following testimony on behalf of the Department.

6 This measure proposes to add select lithium-ion batteries to the Electronic Device
7 Recycling and Recovery Program by adding a definition of “Covered battery” and revising the
8 definition of “Electronic device” to include covered batteries. This amendment would include
9 lithium-ion batteries into the existing electronic device collection and recycling system that was
10 most recently changed in 2022.

11 Currently, the counties of Kauai, Honolulu, and Hawaii offer lithium-ion battery
12 collection services to their residents as either fixed collection locations or via collection events,
13 such as household collection events.

14 While we support the expansion of lithium-ion battery recycling opportunities, we need
15 time to better evaluate this proposal. For example, it is unclear whether the data necessary to

1 implement the program is readily available, which includes weight information on sales to be
2 able to establish manufacturers' recycling goals.

3 **Offered Amendments:** None

4 Thank you for the opportunity to testify on this measure.



STATE OF HAWAII
HAWAII CLIMATE CHANGE MITIGATION & ADAPTATION
COMMISSION
POST OFFICE BOX 621
HONOLULU, HAWAII 96809

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
Chair, House EEP
Chair, House WAL
Chairperson, HTA
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Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawai'i DP
Director, Kaua'i DP
The Adjutant General
Manager, CZM

**Testimony of
LEAH LARAMEE
Climate Change Coordinator on behalf of
Climate Change Mitigation and Adaptation Commission Co-Chair Mary Alice Evans and
Co-Chair Dawn N.S. Chang**

**Before the Senate Committee on
AGRICULTURE AND ENVIRONMENT**

**Monday, February 10, 2025
1:01PM
State Capitol, Conference Room 224 & Videoconference**

**In consideration of
SENATE BILL 391
RELATING TO RECYCLING**

Senat Bill 391 expands the Electronic Device Recycling and Recovery Act to include the collection and recycling of certain lithium-ion batteries and requires manufacturers of lithium-ion batteries to recycle or arrange for the recycling of lithium-ion batteries sold in the State, and ensure the safe collection, storage, transportation, and recycling of batteries. **The Hawai'i Climate Change Mitigation and Adaptation Commission (Commission) supports this measure.**

The Commission consists of a multi-jurisdictional effort between 20 different departments, committees and counties with the purpose of promoting ambitious, climate-neutral, culturally responsive strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient. Recycling lithium-ion batteries can recover the components of the batteries, eliminating the need for mining of raw materials. This process produces significantly less greenhouse gas emissions and uses less water than raw materials extraction. When compared with mining for new materials, recovery of materials from recycling of lithium-ion batteries produces less than half the greenhouse gas emissions, uses 70% less water and 75% less energy.¹ This program would promote safe and proper end of life procedure for lithium-ion batteries ensuring they are recycled and do not end up in a landfill. This will not only reduce emissions and

¹ <https://news.stanford.edu/stories/2025/01/recycling-lithium-ion-batteries-cuts-emissions-and-strengthens-supply-chain#:~:text=readScience%20%26%20Engineering-Recycling%20lithium%20Dion%20batteries%20delivers%20significant%20environmental%20benefits,new%20metals%20%E2%80%93%20batteries%20are%20recycled.>

environmental impacts associated with materials extraction but will also ensure harmful toxins and heavy metals do not end up in our landfill or leech into our soil and aquifers.

Thank you for the opportunity to testify on this measure.



**TESTIMONY OF TINA YAMAKI, PRESIDENT OF THE RETAIL MERCHANTS OF HAWAII
FEBRUARY 10, 2025
SB 391 RELATING TO RECYCLING.**

Aloha, Chair Gabbard members of Senate Committee on Agriculture & Environment. I am Tina Yamaki, President of the Retail Merchants of Hawaii and I appreciate this opportunity to testify.

The Retail Merchants of Hawaii was founded in 1901 and is a statewide, not for profit trade organization committed to supporting the growth and development of the retail industry in Hawaii. Our membership includes small mom & pop stores, large box stores, resellers, luxury retail, department stores, shopping malls, on-line sellers, local, national, and international retailers, chains, and everyone in between.

We respectfully oppose SB 391. This measure expands the Electronic Device Recycling and Recovery Act to include the collection and recycling of certain lithium-ion batteries; requires manufacturers of lithium-ion batteries to recycle or arrange for the recycling of lithium-ion batteries sold in the State, and ensure the safe collection, storage, transportation, and recycling of batteries.

While responsible disposal of these batteries is important, this bill fails to address the fundamental issue: Hawaii lacks the infrastructure to safely and effectively recycle lithium-ion batteries. Instead, it unfairly shifts the burden onto businesses and consumers.

The bill places recycling responsibilities on manufacturers, but there are no lithium-ion battery manufacturers in Hawaii. This means the burden of compliance will fall on retailers, requiring them to collect, store, transport, and recycle these hazardous batteries - responsibilities for which they are neither equipped nor trained.

Lithium-ion batteries are known fire hazards, especially when damaged or stored improperly. Retailers are not equipped to safely store, transport, or dispose of large quantities of these batteries, increasing the risk of fires and workplace hazards.

The costs of compliance - including collection, safe storage, and shipping to out-of-state facilities - would fall on Hawaii's small businesses and retailers. These additional expenses would ultimately be passed on to consumers, further increasing the already high cost of living in Hawaii.

Instead of forcing businesses and consumers to take on the responsibility of hazardous waste management, the state should focus on developing a viable recycling infrastructure for lithium-ion batteries. Other states invest in recycling facilities and state-run collection programs, rather than pushing the burden onto businesses that neither produce nor manufacture these products.

Hawaii needs a real solution to lithium-ion battery disposal - one that includes investment in proper recycling infrastructure, not an unfair mandate on retailers and consumers. This bill fails to address the root problem and instead creates significant financial and safety risks for local businesses and the public. For these reasons, I strongly urge the committee to reject this proposal and instead explore state-supported recycling programs that do not place the entire burden on businesses.

We ask you to hold this bill. Mahalo again for this opportunity to testify.

SB-391

Submitted on: 2/9/2025 1:11:26 PM

Testimony for AEN on 2/10/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Michele Mitsumori	Testifying for IT Reuse Hawai'i	Oppose	Written Testimony Only

Comments:

Aloha,

The current Electronic Device Recycling and Recovery Act is based upon a registry of manufacturers with a clear definition of covered devices and incentivized recycling goals based on weight sold in Hawai'i.

The manufacturers of lithium-ion batteries are different, and there is no existing registry of them with the Dept. of Health.

Further, if a covered electronic device with a removable lithium-ion battery is collected, it is not clear who is responsible -- the device or the battery manufacturer. How will the weight be counted towards the two manufacturer's weight sold and recycling goals by weight? What if only the battery is recycled? Adding lithium-ion batteries to the Electronic Device Recycling program will add complexity and difficulty, while failing to provide any resources towards building capacity, such as additional storage space and safety precautions for collectors.

Finally, a separate battery stewardship program should be created, which covers a broader range of batteries, and can anticipate the introduction of new forms of batteries.

For these reasons, I OPPOSE SB391.

Mahalo,

Michele Mitsumori, IT Reuse Hawai'i, Hilo



Mr. K's Recycle and Redemption Center

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Aloha, Chair Gabbard, Vice Chair Richards, and Committee Members,

As owner and president of Mr. K's Recycle and Redemption Center, I am submitting testimony to **OPPOSE SB 391**, which seeks to expand the Electronic Device Recycling and Recovery Act (EDRRA) to include the collection and recycling of certain lithium-ion batteries. Mr. K's has collected electronic devices for recycling in Hawai'i County for over a decade. While we support the responsible recycling of lithium-ion batteries, we oppose the addition to the EDRRA for the following reasons:

- 1) **Because manufacturers of lithium-ion batteries are different from those of electronic devices, battery recycling should have its own program.**
 - a) The Department of Health (DOH) currently has no existing registry of lithium-ion battery manufacturers, and manufacturers would enter the recycling goal program at 70%, with no ramp up.
 - b) Collectors will also need to establish relationships with new manufacturers, who may also need to develop their own collaborations to achieve EDRRA statewide service.
 - c) For electronic devices with removable lithium-ion batteries, it must be clear which manufacturer type (electronic device or lithium-ion battery) is responsible for the recycling.
- 2) **The program should maximize participation by recognizing diverse roles such as retailers like Home Depot, which offers free, in-store collection of power tool batteries.**
- 3) **Public education, outreach, and safety must be an integral part of developing infrastructure.**
 - a) Public education should include the safe storage of covered batteries, which are highly flammable.
 - b) Resources must be made available for collectors to build infrastructure to safely collect and transport lithium-ion batteries at larger quantities.
- 4) **A more comprehensive and separate battery stewardship program should be considered, and not be restricted to electronic devices.**
 - a) This can include non-rechargeable alkaline batteries, for example, for which responsible recycling programs exist and which help divert landfill.
 - b) Alternatives to lithium-ion batteries are already being developed, including sodium-ion batteries. A battery stewardship program will allow Hawai'i flexibility.

Thank you for the opportunity to submit testimony OPPOSING SB 391. Mahalo for your leadership and stewardship,

Roy Kadota

Owner and President, Mr. K's Recycle and Redemption Center, Inc.

A handwritten signature in black ink, appearing to read 'Roy Kadota', is written over a horizontal line.



To: The Honorable Senator Mike Gabbard, Chair, the Honorable Senator Tim Richards, III, Vice Chair, and Members of the Committee on Agriculture and Environment.

From: Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

Re: **Hearing SB391 RELATING TO RECYCLING**

Hearing: Monday February 10, 2025, 1:01 p.m.

Aloha Chair Gabbard, Vice Chair Richards, and Members of the Committee on Agriculture and Environment!

Hawai'i Reef and Ocean Coalition (HIROC) is a group of scientists, educators, filmmakers and environmental advocates who have been working since 2017 to protect Hawaii's coral reefs and ocean.

Hawai'i Reef and Ocean Coalition **SUPPORTS** this legislation!

Rechargeable lithium batteries should be recycled because they contain valuable materials.

Proper handling of lithium batteries also will reduce fire risk. Recharging is reusing materials rather than disposing of them as trash.

Mahalo!

Hawai'i Reef and Ocean Coalition (by Ted Bohlen)

SB-391

Submitted on: 2/9/2025 7:52:27 AM

Testimony for AEN on 2/10/2025 1:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Lois Crozer	Individual	Support	Written Testimony Only

Comments:

The companies who sell toxic products should be responsible for collecting them at the end of the product's life. If they need to add cost to the item, then so be it. Otherwise we are all paying for others' consumption and toxic waste.