HAWAII STATE ENERGY OFFICE
STATE OF HAWAII

JOSH GREEN, M.D.
GOVERNOR

SYLVIA LUKE
LT. GOVERNOR

MARK B. GLICK
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 451-6648
Web: energy.hawaii.gov

Testimony of
MARK B. GLICK, Chief Energy Officer

before the
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
Thursday, February 20, 2025
9:30 AM
State Capitol, Conference Room 229 and Videoconference

In Support of
SB 391, SD1

RELATING TO RECYCLING.

Chair Keohokalole, Vice Chair Fukunaga, and Members of the Committee, the Hawai'i State Energy Office (HSEO) offers support with amendments on SB 391, SD1, which establishes an end-of-life lithium-ion battery management working group within the Hawai'i State Energy Office and requires a report to the Legislature.

Given the diverse battery ecosystem, from AA batteries and e-bikes to home energy systems and utility-scale energy systems, it may be most efficient to explore options under one umbrella to address common elements of waste management, with subgroups to address variances in battery sizes. While HSEO disproves of managing by committee, it recognizes an important role for the Department of Health given its role in implementation of battery waste systems and greatly values its input.

Product stewardship, also known as extended product responsibility (EPR), involves collaboration among manufacturers, retailers, users, and disposers to reduce the environmental impacts of products. Many states incorporate these objectives into their waste management plans, increasing recycling through cooperation with manufacturers and retailers.[1]

[1] United States Environmental Protection Agency, *Basic Information: What is Product Stewardship?,* 2016: https://archive.epa.gov/wastes/conserve/tools/stewardship/web/html/basic.html

A unified umbrella of the working group will streamline the management of an end-of-life battery stewardship program informed by the subgroups to foster effective collaboration and a comprehensive approach to disposal and recycling.

HSEO also acknowledges the Hawai‘i Natural Energy Institute and Dr. Michael Cooney, in particular, who has conducted extensive research to determine appropriate policy frameworks for Hawai‘i's unique context and published three comprehensive reports published in 2022, 2023, and 2024.[2] The first two legislative reports acknowledged lithium-ion batteries (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. However, the potential profits from material recovery show promise.

Given the high regulatory environment for end-of-life (EOL) lithium-ion battery management, it's crucial to construct legislation that can succeed in this context. The Institute's third 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.

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[2] Hawaii 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).

This approach allows for a cohesive strategy that does not disproportionately burden manufacturers. Product stewardship and stewardship organizations, which assist in running waste disposal and recycling programs, would be advantageous in Hawai'i's highly regulated environment of hazardous waste shipping. Considering how this bill essentially combines with the topic of SB 103, HSEO's recommendations are based on this proposed structure, which is inclusive of all battery types. For page 1 lines 6 thru 17, HSEO recommends the following language:

(1) Recommendations with requirements on best practices for enforcement of end-of-life lithium-ion battery disposal;
(2) Recommendations with analysis of requirements for various in-state versus out-of-state pathways to manage end-of-life disposal of lithium-ion batteries at all scales; inclusive of utilities, infrastructure, environmental impacts, and first responders' needs;
(3) Assessment of the impacts of sending end-of-life lithium-ion batteries to overseas port versus United States ports;
(4) Recommendations with requirements for establishing a lithium-ion battery stewardship program in the State; and
(5) Final recommendations on best practices for end-of-life lithium-ion battery management at all scales.

Since this bill proposes one working group that would be responsible for formulating distinct subgroups based on various battery sizes and uses, HSEO estimates a longer timeframe may be necessary to distill findings of the subgroups and create a unified approach that considers the entire ecosystem. For page 3 lines 14 to 18, HSEO recommends the following:

(e) The working group shall submit [~~a~~] an interim report of its findings and recommendations, including any proposed legislation, to the legislature no later than

twenty days prior to the convening of the regular session of 2026.

(f) The working group shall submit a final report of its findings and recommendations, including any proposed legislation, to the legislature no later than twenty days prior to the convening of the regular session of 2027.

(g) The working group shall be dissolved on June 30, [~~2026~~] 2027.

As previously noted, HSEO considers the Department of Health to be a crucial collaborator in this effort and defers to it regarding implementation.

Thank you for the opportunity to testify.

JOSH GREEN, M.D.
GOVERNOR OF HAWAII
KE KIA'ĀINA O KA MOKU'ĀINA 'O HAWAI'I

KENNETH S. FINK, MD, MGA, MPH
DIRECTOR OF HEALTH
KA LUNA HO'OKELE

STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

WRITTEN TESTIMONY ONLY

Testimony in SUPPORT of SB0391 SD1
RELATING TO RECYCLING

SENATOR JARRETT KEOHOKALOLE, CHAIR
SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

February 20, 2025, 9:30 AM, Room Number: 229

Fiscal Implications: N/A.

Department Position: The Department of Health (Department) supports this measure and offers comments.

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

The Department supports the intent of this measure to establish an end-of-life lithium-ion battery management working group in the Hawai'i State Energy Office and agrees that it is prudent to gather more information about the current options for end-of-life lithium-ion batteries and develop policy to encourage proper recycling and disposal, as this waste stream will increase in the future

The Department would prefer to be a co-chair of this working group. Because of its regulatory responsibility for solid and hazardous waste, the Department will likely be tasked with implementation of policies developed by the Legislature based on working group recommendations. Since having too many co-chairs could be difficult, the Department suggests that the Department replace the Hawaii Natural Energy Institute as co-chair.

The Department prefers the language found in HB0332 HD1 limiting the scope of the working group to small and medium format lithium-ion batteries, which are the type found in consumer electronics. Larger lithium-ion batteries found in electric vehicles have different chemistries, distribution chains, and reuse, recycling, and disposal considerations, which should be studied by a separate task force with different composition (contemplated by SB0103 SD1 and HB0242 HD1).

Department staff working on the task force proposed by this measure and the electric vehicle battery recycling task force proposed by SB0103 SD1 and HB0242 HD1 would likely to be the same, and it would be difficult to do both at the same time as staffing resources are stretched thin. Currently, the counties of Kauaʻi, Honolulu, and Hawaiʻi offer small and medium format lithium-ion battery collection services to their residents as either fixed collection locations or via collection events, such as household collection events. If SB0103 or HB0242 are passed, the electric vehicle battery working group should be prioritized. Therefore, the Department recommends a later date for the report required by this measure.

The Department recommends adding to the task force one representative from the in-state lithium-ion battery recycling or collection industry and one representative from an out-of-state lithium-ion battery recycling company.

Offered Amendments: The Department recommends the following amendments:

On page 2, line 5, replace “Hawaii natural energy institute” with “department of health” and on page 2, line 8, replace “department of health” with “Hawaii natural energy institute.”

Adopt language from HB0332 HD1 page 2 lines 8 to 11 and 20 to 21 to clarify that this task force should focus on small and medium format lithium-ion batteries.

Change 2026 to 2028 on page 3 lines 17 and 18 so that the sentence beginning on page 3 line 14 reads, “The working group shall submit a report…no later than twenty days prior to the convening of the regular session of 2028.”

Insert at page 3 line 9, “(9) One representative from the in-state lithium-ion battery recycling or collection industry; (10) One representative from an out-of-state lithium-ion battery recycling company;” and renumber subsequent paragraphs.

Thank you for the opportunity to testify on this measure.

SIERRA CLUB OF HAWAIʻI

SENATE COMMITTEE ON COMMERCE AND CONSUMER PROTECTION

February 20, 2025 9:30 AM Conference Room 229

In SUPPORT of SB391 SD1: Relating to Recycling

Aloha Chair Keohokālole, Vice Chair Fukunaga, and Members of the Committee,

On behalf of our over 20,000 members and supporters, the Sierra Club of Hawaiʻi **SUPPORTS** SB391 SD1**,** which will help to address the growing waste stream concerns associated with end-of-life lithium ion batteries.

Our islands' failure to account for our continuous production of solid waste, and the externalized costs of our consumption-based economy, have resulted in significant and ever-growing impacts to our environment, our public health, and overall quality of life. Leachates from our landfills threaten to contaminate our water resources and nearshore areas; toxic emissions and ash from Oʻahu's waste-to-energy facility have raised the risks of lung and heart disease, neurological complications, reproductive issues, and cancer in nearby, largely Native Hawaiian communities; and our limited land areas and our sensitive environments and groundwater sources severely limit the space we have available to receive and store our waste byproducts.

Unfortunately, while lithium ion batteries are helping to reduce our dependency on fossil fuels and further our progress towards a net negative carbon footprint by 2045, a lack of disposal pathways for these batteries may exacerbate our solid waste conundrum. Notably, the storage, transportation, and disposition of such batteries present unique waste management challenges, particularly given the potential for fires and toxic chemical releases, the limited options for affordably off-shipping used and damaged batteries, and the lack of any proper lithium battery processing, much less recycling, facilities in our islands. As more and more electric vehicles and other devices and energy storage banks using lithium ion batteries are imported, these unique challenges will only increase over time.

Accordingly, the Sierra Club supports this measure's efforts to begin the process of researching and planning for the management of lithium ion batteries entering our waste stream, including through potential battery recycling and reuse. Not only may this head off a looming hazardous waste crisis, but innovative strategies for recycling and reuse could also result in educational opportunities and economic benefits for local residents and businesses.

Accordingly, the Sierra Club of Hawaiʻi respectfully urges the Committee to **PASS** SB391 SD1. Mahalo nui for the opportunity to testify.

SB-391-SD-1
Submitted on: 2/14/2025 6:14:21 PM
Testimony for CPN on 2/20/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Testifying for Climate Protectors Hawaii	Support	Written Testimony Only

Comments:

Climate Protectors Hawaii **SUPPORT!**

Recycling of lithium batteries should be investigated.

SB-391-SD-1
Submitted on: 2/16/2025 3:40:06 PM
Testimony for CPN on 2/20/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Ruth Love	Individual	Support	Written Testimony Only

Comments:

I would also ensure that any lithium battery for recycling be separated from any computing device to protect our residents from data theft irregardless of whether the recycling is done here, out of state or out of the country.

Thank you

Mrs Ruth Love

SB-391-SD-1
Submitted on: 2/17/2025 8:46:21 PM
Testimony for CPN on 2/20/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
Tasman Kekai Mattox	Individual	Support	Written Testimony Only

Comments:

I support this measure.

LATE

C. Kimo Alameda, Ph.D.
Mayor

William V. Brilhante, Jr.
Managing Director

Wesley R. Segawa
Director

Craig Kawaguchi
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

345 Kekūanāo'a Street, Suite 41 · Hilo, Hawai'i 96720 · cohdem@hawaiicounty.gov
Ph: (808) 961-8083 · Fax: (808) 961-8086

February 18, 2025

COMMITTEE ON COMMERCE AND CONSUMER PROTECTION
Sen. Jarrett Keohokalole, Chair
Sen. Carol Fukunaga, Vice Chair
Hawai'i State Capitol
Honolulu, HI 96813

Re: Testimony in Support of Senate Bill (SB) 391 SD1 Relating to Recycling, which establishes Working Group to examine how to maximize the management of end-of-life lithium-ion batteries.

Dear Chair Keohokalole, Vice Chair Fukunaga and Committee Members,

The County of Hawai'i Department of Environmental Management is pleased to submit **testimony in support of Senate Bill 391 SD1**, which establishes Working Group to maximize the management of end-of-life lithium-ion batteries.

The increased prevalence of lithium-ion batteries in everyday consumer electronics poses a significant hazard to the environment, and the staff and facilities of the Department of Environmental Management's Solid Waste Division when improperly disposed. Establishing a proper Extended Producer Responsibility system to safely and conveniently collect and recycle these batteries would reduce the safety and environmental hazards as well as recover a valuable reusable resource.

The County offers the following **comments** to improve the bill. The bill should consider a comprehensive battery stewardship program that would cover multiple battery chemistries instead of just lithium-ion batteries. Battery management is quite different from the management of recyclable electronics; not every electronics recycling collector has the capacity or wants to recycle batteries thus these programs should be separate Extended Producer Responsibility (EPR) programs. The Product Stewardship Institute has worked with multiple stakeholders to develop model EPR legislation for battery recovery and helped some states enact EPR laws.

Thank you for your consideration.

Best Regards,

Craig Kawaguchi
DEPUTY DIRECTOR

cc: Mayor Kimo Alameda

Gene Quiamas, Acting Hawai'i County Solid Waste Division Chief
Tanya Buckley, Acting Hawai'i County Recycling Coordinator

LATE

February 20, 2025

Tony Belot
91-56 Hanua Street
Kapolei, HI 96707
abelot@rdus.com

Senator Jarrett Keohokalole, Chair
Senator Carol Fukunaga, Vice Chair
Committee on Commerce and Consumer Protection

RE: SB 391, SD1, Relating to Recycling

Chair Keohokalole, Vice Chair Fukunaga, and members of the committee,

Radius Recycling (formerly Schnitzer Steel Industries), is a world leader in sustainable and environmentally responsible recycling. The Company was listed as one of TIME's 100 Most Influential Companies of 2023, recognized as the Most Sustainable Company in the World by Corporate Knights in 2025, and has been honored by Ethisphere as one of the World's Most Ethical Companies® for ten consecutive years.

SB 391, SD1, recognizes the need for Hawai'i to maximize the recycling and reuse of lithium-ion batteries and establishes a working group to recommend lithium ion battery management practices. An important goal for the state is to preserve our local environment while concurrently optimally utilizing resources through recycling.

As our organization routinely encounters these batteries in our recycling stream, we strongly support the inclusion of at least one or more representatives from **the automotive recycling** industry. Such a representative will, we believe, contribute a significant and valuable viewpoint, grounded in practical experience, concerning the safe, environmentally responsible, and efficient handling of end-of-life electric vehicles.

Radius Recycling is deeply appreciative of the intent of this measure to assure that there is proper recycling and disposal of EV batteries. We look forward to serving as a resource to policymakers on EV recycling.

Sincerely,

Tony Belot, Government and Public Affairs Manager, Radius Recycling

LATE LATE

Environmental Caucus of The Democratic Party of Hawai‘i

February 19, 2025

TO: Chair Jarrett Keohokalole, Vice Chair Carol Fukunaga, and Members of the Committee on Commerce and Consumer Protection

Hearing Date: Thursday, February 20, 2025 **Time**: 9:30 a.m. **Place**: Conference Room 229 and Videoconference

FROM: Environmental Caucus of the Democratic Party of Hawaii

SUBJECT: Testimony in Support of SB391 SD1 - Relating to Recycling

Aloha Chair Keohokalole, Vice Chair Fukunaga, and Members of the Committee,

The Environmental Caucus of the Democratic Party of Hawaii strongly supports SB391 SD1, which establishes an End-of-Life Lithium-ion Battery Management Working Group and requires a report to the Legislature.

Key Points

- **Establishment of Working Group**: This bill establishes a dedicated working group to address the management of end-of-life lithium-ion batteries, ensuring that these batteries are disposed of and recycled responsibly.
- **Environmental Protection**: Proper management of lithium-ion batteries is crucial for protecting the environment from the harmful effects of improper disposal and ensuring the safe recycling of valuable materials.
- **Legislative Reporting**: Requiring a report to the Legislature ensures transparency and accountability in the working group's efforts and provides valuable insights for future policy-making.
- **Funding Support**: Appropriating necessary funds supports the successful establishment and operation of the working group.

Arguments in Support

The establishment of an End-of-Life Lithium-ion Battery Management Working Group is essential for addressing the growing issue of lithium-ion battery disposal and recycling. Lithium-ion batteries are widely used in various devices, and their improper disposal poses significant environmental risks, including soil and water contamination. By creating this working group, SB391 SD1 ensures that there is a coordinated effort to develop and implement effective management strategies for end-of-life lithium-ion batteries.

The requirement for the working group to report to the Legislature promotes transparency and accountability, providing valuable information and recommendations for future legislative actions. Additionally, the appropriation of funds is crucial for the successful establishment and operation of the working group, enabling it to fulfill its mandate effectively.

We commend the Committee for considering this important legislation and urge its passage. The Environmental Caucus of the Democratic Party of Hawaii stands ready to assist in any way possible to ensure the successful implementation of SB391 SD1.

Thank you for the opportunity to submit testimony in support of this bill.

Mahalo nui loa,

Melodie Aduja and Alan Burdick
Co-Chairs, Environmental Caucus Democratic Party of Hawaii

LATE

SB-391-SD-1
Submitted on: 2/18/2025 11:15:34 AM
Testimony for CPN on 2/20/2025 9:30:00 AM

Submitted By	Organization	Testifier Position	Testify
chris c.	Individual	Comments	Written Testimony Only

Comments:

The Working Group should consider a comprehensive battery (multiple chemistries) EPR, not just lithium-ion batteries.

Battery EPR program should be separate from electronics EPR program due to the considerable differences in safety, training and protocols for each type of recycling.