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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
**SENATE COMMITTEES ON
ENERGY AND INTERGOVERNMENTAL AFFAIRS
AND
AGRICULTURE AND ENVIRONMENT**

Tuesday, March 11, 2025
3:00 PM
State Capitol, Conference Room 016 and Videoconference

Providing Comments on
HB 242, HD1

RELATING TO ELECTRIC VEHICLE BATTERIES.

Chairs Wakai and Gabbard, Vice Chairs Chang and Richards, and Members of the Committees, the Hawai'i State Energy Office (HSEO) offers comments on HB 242, HD1, which convenes a working group within the Hawai'i State Energy Office to examine options for reuse and recycling of electric vehicle batteries.

The rapid development of the electric vehicle (EV) industry presents promising opportunities for technological innovation and sustainability. Concurrently, Hawai'i's geographical location as the most populated isolated island state requires adoption of pioneering waste management practices that can reliably ensure health and safety under a practical and effective regulatory framework. Specifically, Hawai'i needs to step up to develop processes and practices that can stimulate private sector investment in local processing of lithium-ion batteries (LIBs) so the LIBs can be properly disposed of at the end of their useful life (EOL). Creating a local industry for EOL processing has the potential to create and retain good paying jobs in Hawai'i while establishing a process for this that prioritizes safety, affordability, and sustainability. Such a proactive effort will permit Hawai'i to avert a challenging waste problem and the associated health

and safety risks and potentially put Hawai'i businesses in a leading opportunity to replicate and support solutions for export given the growing worldwide demand to appropriately handle and recycle the growing volume of battery waste.

HSEO has forecasted significant growth in electric vehicles given its central role in decarbonizing the ground transportation sector. The 2024 Hawai'i Greenhouse Gas Emissions Report for 2020 and 2021 estimates that in 2021 the tailpipe emissions from ground transportation comprise 37% of all transportation emissions in Hawai'i. In 2021, ground transportation contributed 3.53 MMT CO₂e, making up 17.5% of the aggregated state gross total of 20.18 MMT CO₂e emissions.¹ The Decarbonization Report prepared by HSEO pursuant to Act 238 (SLH 2022) and submitted to the Hawai'i Legislature in December 2023 states that decarbonization of ground transportation requires a two-pronged approach: reducing the amount of energy for ground transportation and transitioning to zero-emission vehicles.²

HSEO agrees with the intention of convening a group of experts in technology, law, government, and industry to develop a report that can inform the management practices for EV batteries in Hawai'i, along with the supporting required regulatory framework. HSEO acknowledges and greatly values the role and input of the Department of Health for the implementation of waste management policies and systems. To that end, HSEO suggests establishing a single working group that would consider end-of-life lithium-ion batteries at all scales, with subgroups to focus on the different battery sizes (small and medium format versus large), as these inform subtopics like collection points and packaging requirements. Since this bill title, "Relating to Electric Vehicle Batteries", limits the scope of the working group to electric vehicle batteries, if the committee wishes to consider a holistic approach that includes a wider variety of batteries, **HB 332 HD1, Relating to Recycling** may offer the opportunity for a broader working group.

¹ State of Hawai'i Department of Health (2024) Hawai'i Greenhouse Gas Emissions Report for 2020 and 2021. Available at: https://health.hawaii.gov/cab/files/2024/05/2020-and-2021-Inventory_Final-Report_5-29-24.pdf

² Hawai'i State Energy Office (2023). Hawai'i Pathways to Decarbonization Report to the 2024 Hawai'i State Legislature Act 238 (SLH 2022). Available at: [https://energy.hawaii.gov/wpcontent/uploads/2022/10/Act238_HSEO_Decarbonization_FinalReport_2023.pdf pages 102 and 106](https://energy.hawaii.gov/wpcontent/uploads/2022/10/Act238_HSEO_Decarbonization_FinalReport_2023.pdf_pages_102_and_106)

HSEO also acknowledges the valuable research and analysis completed by the Hawai'i Natural Energy Institute (HNEI) to date; including the publication of three reports that provide the following: an analysis of current battery management practices and the regulatory environment; recommended approaches for battery management and processing; volume estimates; and guidance on feasible policy frameworks.³

Furthermore, HSEO has planned future work with the Hawai'i Energy Policy Forum and HNEI to establish a working group focused on the requirements for managing the processing of all EOL LIBs (e.g. insurance, utilities, land, first responders, State and Federal regulations). Understanding these requirements is essential to the development of sound policy that the entire industry is likely to support and be able to execute. Collectively, these efforts would benefit from a cohesive approach that recognizes Hawai'i's unique environment, particularly its reliance on off-island shipping.

HSEO is dedicated to collaborating with the appropriate agencies to develop and align solutions for effective local repurposing and EOL management of LIBs to ensure safety, energy security, enhanced cost-effectiveness, and the re-use of valuable materials.

Thank you for the opportunity to testify.

³ 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>).