

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

**Testimony COMMENTING on HB1972
RELATING TO ELECTRIC VEHICLE BATTERIES**

REPRESENTATIVE NICOLE E. LOWEN, CHAIR
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Hearing Date: February 6, 2024

Room Number: 325

1 **Fiscal Implications:** This measure may impact the priorities identified in the Governor's
2 Executive Budget Request for the Department of Health's (Department's) appropriations and
3 personnel priorities.

4 **Department Testimony:** The Department respectfully offers comments on this bill and requests
5 clarification of the legislature's intent. The bill proposes the creation of a new program to
6 manage electric vehicle (EV) propulsion batteries and appears to conflict with existing state
7 programs for managing solid and hazardous waste, which may lead to unintended consequences.
8 The Department believes that if the legislature's intent is to require management of EV batteries
9 discarded by consumers as hazardous waste, while encouraging reuse, repurposing, and
10 recycling, it would be more appropriate to direct these batteries into the existing universal waste
11 collection system.

12 The prohibition on page 4 lines 2-7, "No person shall dispose of a propulsion battery,
13 battery: module, or battery cell as solid waste" is unclear and potentially problematic for two
14 reasons. First, page 3 lines 18-19 refer to the definition of "solid waste" in section 342J-2, HRS.
15 As the definition of "hazardous waste" also in section 342J-2 makes clear, this definition of
16 "solid waste" includes "hazardous waste." The bill in its current form appears to represent a
17 complete prohibition on disposal or collection for recycling under both state hazardous waste
18 laws (342J, HRS), and state solid waste laws (324H, HRS).

19 Second, "person" is not defined in chapter 342I, HRS, or the proposed new part of 342I.
20 When not otherwise defined, the legal definition of person is typically very broad, including

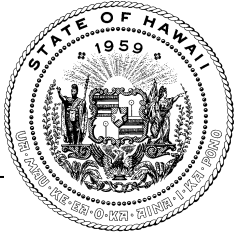
1 businesses, government agencies, and other legal entities in addition to individuals. All
2 hazardous waste discarded by businesses, governments, and other legal entities (not households
3 or individuals) is regulated under the Department's hazardous waste program, which is
4 authorized by the United States Environmental Protection Agency (EPA). We note that
5 regulating these hazardous wastes under the proposed EV battery program at a level that is less
6 stringent than federal hazardous waste regulations would jeopardize EPA's approval and funding
7 of the state's hazardous waste program.

8 Household hazardous waste is exempt from regulation under the federal hazardous waste
9 program and current state rules, but it is allowable under federal statute and regulation for
10 Hawaii's EPA-authorized hazardous waste program to be stricter or broader than the federal
11 requirements, if that is the legislature's desire, and several other states do choose to regulate
12 some or all types of household hazardous wastes.

13 Universal waste is a special subset of hazardous waste with relaxed collection, storage,
14 and transportation criteria and includes all type of batteries that are flammable, corrosive, and/or
15 toxic. These regulations are designed to be protective of human health and the environment, with
16 strict requirements covering the possibility of proper disposal as hazardous waste if the battery
17 cannot be reused, repurposed, or remanufactured. Universal waste handlers collect hazardous
18 waste batteries discarded by businesses and manage them under chapter 11-273.1, Hawaii
19 Administrative Rules, regulations based on EPA's federal program. If household batteries were
20 regulated as universal waste, this could include all types of hazardous batteries discarded by
21 consumers rather than only EV propulsion batteries.

22 Although cost recovery is mentioned on page 13, the bill does not reference an
23 appropriation, collection of money, creation of a fund, or use of a fund, so clarity regarding
24 funding is required. The review and approval of plans referred to on page 8 line 21 and
25 inspection and enforcement contemplated on pages 14-15 would require significant resources,
26 including multiple staff positions. Rather than creating a new system, and a new regulatory
27 program, for collecting EV batteries, producer responsibility could be more easily accomplished
28 by requiring EV battery producers to accept and properly manage batteries as universal waste
29 handlers (or contract with existing handlers to do so on their behalf) at no cost to consumers.

- 1 **Offered Amendments:** None.
- 2 Thank you for the opportunity to testify.



HAWAII STATE ENERGY OFFICE STATE OF HAWAII

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SYLVIA LUKE
LT. GOVERNOR

MARK B. GLICK
CHIEF ENERGY OFFICER

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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Tuesday, February 6, 2024
10:00 AM
State Capitol, Conference Room 325 and Videoconference

Providing Comments on
HB 1972

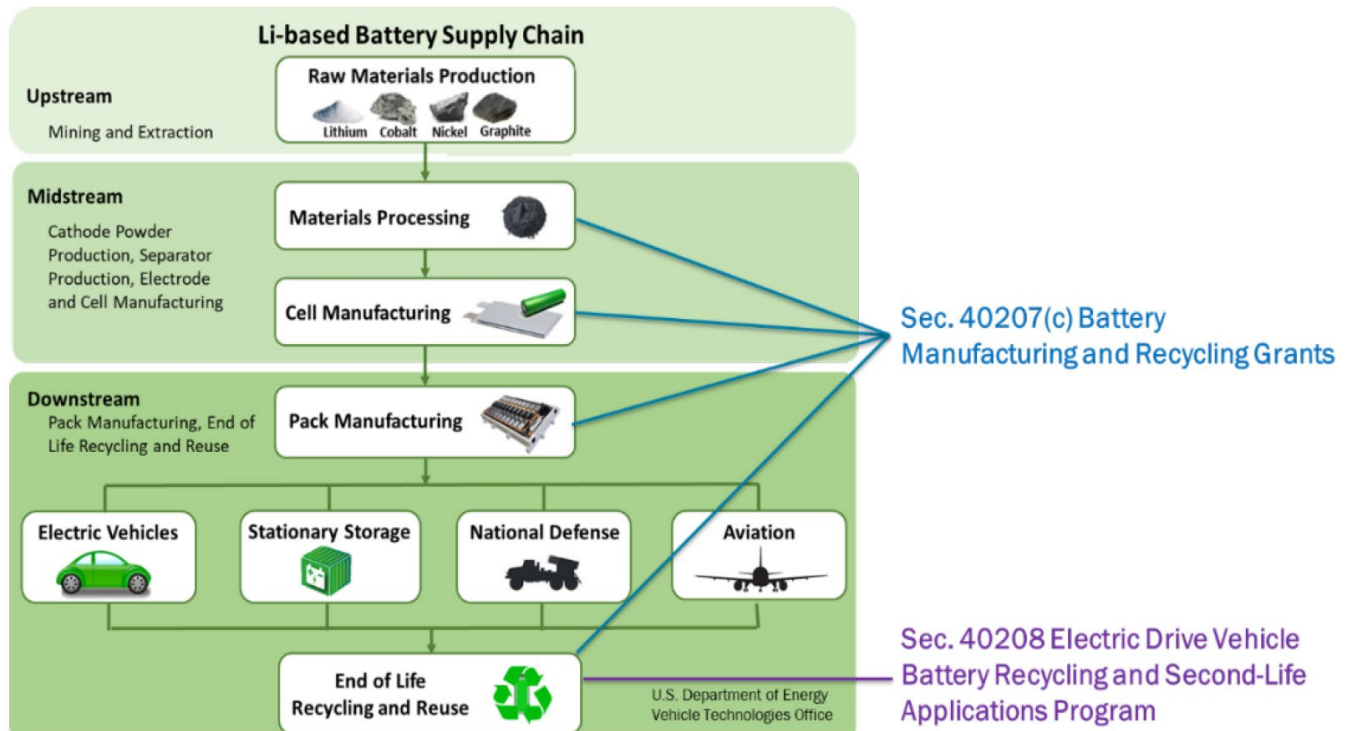
RELATING TO ELECTRIC VEHICLE BATTERIES.

Chair Lowen, Vice Chair Cochran, and Members of the Committee, the Hawai'i State Energy Office (HSEO) offers comments on HB 1972, that establishes a number of simultaneous provisions relating to the handling of electric vehicle batteries, including bans on accepting electric vehicle batteries for collection or disposal.

Improving the management of end-of-life batteries can be considered a part of achieving Hawai'i's resilient clean energy economy. Electric vehicle (EV) batteries contain critical materials that have the realistic potential to continue serving the energy economy, assuming the EV battery waste stream is managed well in the reverse supply chain. Proper management of these batteries will result in source materials for one of the most important components in the clean transportation sector. HSEO recognizes the need for propulsion batteries to have a proper management plan as improper disposal can result in negative environmental impacts.

HSEO appreciates the intent of this bill to develop effective systems to handle electric vehicle batteries. HSEO recommends caution in the sequencing of events, including bans, and recommends thoughtful integration with programs at the County, State, and Federal levels. HSEO defers to the appropriate agencies on the implementation of the requirements of this measure.

HSEO has made appropriate management of battery, as well as renewable energy production equipment, waste streams a priority and is actively engaged in securing federal support and partnerships that may be used to support efforts to safely and cost-effectively manage end-of-life (EOL) batteries. The graphic below shows Bipartisan Infrastructure Law (BIL) investments in the battery supply chain, available through the United States Department of Energy, as stated in Funding Opportunity Announcement DE-FOA-0003120:

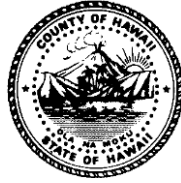


HSEO looks forward to working with others interested in this area, in pursuit of effective solutions to this very important topic.

Thank you for the opportunity to testify.

Mitchell D. Roth
Mayor

Deanna S. Sako
Managing Director



Ramzi I. Mansour
Director

Brenda Iokepa-Moses
Deputy Director

County of Hawai'i

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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February 1, 2024

COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Rep. Nicole Lowen, Chair
Rep. Elle Cochran, Vice Chair
Hawai'i State Capitol
Honolulu, HI 96813

Re: Testimony in Support of House Bill (HB) 1972 Relating to Electric Vehicle Batteries, which establishes Electric Vehicle Battery Recycling & Disposal Program.

Dear Chair Lowen, Vice Chair Cochran and Committee Members,

The County of Hawai'i Department of Environmental Management is pleased to submit testimony **in strong support of House Bill 1972 with comments**, which will establish a producer-responsibility system of environmentally sound management practices for vehicle propulsion batteries in Hawai'i.

As a result of the increased popularity of electric and hybrid vehicles an extended producer responsibility system for the reuse, recycling or disposal of vehicle propulsion batteries is overdue. The County of Hawai'i does not have the resources to manage this emerging waste stream and believes that producers have the expertise and incentive to reuse or recycle their batteries in an environmentally sound manner.

The County offers the following comments on the bill to improve clarity. Hybrid vehicles with batteries should also be included in the bill. Not all electric vehicles are charged via the electric grid, some electric vehicle owners are off grid and have their own battery storage units. The "Propulsion battery" definition is too narrow and does not include the possibility of future alternative battery chemistries.

Thank you for your consideration.

Best Regards,

Ramzi I. Mansour
DIRECTOR



DATE: February 6, 2024
TIME: 10:00AM
PLACE: VIA VIDEOCONFERENCE and Conference Room 325
BILL: HB 1972, Relating to Electric Vehicle Batteries

Aloha Chair Lowen, Vice Chair Cochran and members of the committee!

On behalf of the Hawai'i Automobile Dealers Association (HADA), we are writing to respectfully **oppose** HB 1972, relating to electric vehicle batteries. This bill establishes an electric vehicle battery recycling and disposal program and prohibits disposal of propulsion batteries as solid waste. It prohibits producers of propulsion batteries from refusing propulsion batteries for reuse, remanufacturing, repurposing, or recycling and establishes producer responsibility for propulsion batteries embedded into vehicles or sold separately in the State or through remote sale.

HADA supports working collaboratively with policy leaders to ensure that the state's clean energy goals are met. HADA actively engages with stakeholders, including state agency leaders, on solutions to challenges identified in this bill. We have consistently advocated for infrastructure to support electric vehicle deployment and understand the necessity of looking to the end-of-life of batteries and equipment. We support measures that facilitate the implementation of policies that promote the use of electric vehicles and other measures to meet the state's energy goals. We strongly believe that more study is needed to ensure that a measure such as this one does not unintentionally set back the state's efforts.

HADA seeks to engage with legislators on issues of importance relevant to motor vehicles, our state's clean energy future, and safety. We thank you for the opportunity to testify.

The Hawai'i Automobile Dealers Association is the voice of more than 60 new car dealerships across the islands, accounting for over 4,000 direct jobs, \$6 billion total sales and more than \$250 million in general excise taxes paid.



To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, February 6, 2024, 10am

In support of HB1972

Aloha Chair Lowen, Vice Chair Cochran, and Energy and Environmental Protection Committee members,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org supports HB1972 that establishes an electric vehicle battery recycling and disposal program.

The transportation sector contributes more to the climate crisis than any other sector in Hawaii. Electrification of the transportation sector is critical in our efforts to stem climate breakdown.

However, concerns about mining the minerals we need for electric vehicle (EV) batteries are real, and they need to be addressed. Mining for minerals, including those needed for EV batteries, can create serious environmental damage, and nothing about that is “green.” Recycling will help lower the environmental harm caused due to mining, and will help use metals more efficiently. Failing to recycle is wasteful and foolish.

This measure also addresses proper disposal of batteries. This is very important. If EV batteries are disposed of improperly, the batteries could cause fires or contaminate lands and waters with toxic chemical substances.

The materials in electric batteries are high in demand, and they can all be recycled and reused to make new batteries while reducing the need for newly mined materials. We must ensure that the toxic harm and environmental injustice caused by the fossil fuel industry is not repeated in our transition to zero-emission transportation. Recycling electric batteries is crucial to make battery production more sustainable and affordable.

Please pass HB1972.

Mahalo for the opportunity to testify on this important measure.

Sherry Pollack
Co-Founder, 350Hawaii.org

Feb. 6, 2024, 10 a.m.
Hawaii State Capitol
Conference Room 325 and Videoconference

To: House Committee on Energy and Environmental Protection
Rep. Nicole E. Lowen, Chair
Rep. Elle Cochran, Vice-Chair

From: Grassroot Institute of Hawaii
Ted Kefalas, Director of Strategic Campaigns

RE: COMMENTS ON HB1972 — RELATING TO ELECTRIC VEHICLE BATTERIES

Aloha Chair and Committee Members,

The Grassroot Institute of Hawaii would like to offer its comments on [HB1972](#), which would establish an electric vehicle battery recycling and disposal program for Hawaii.

Due to the state's ambitious renewable energy goals, there is a strong push to increase adoption of electric vehicles in the state. However, the incidental effect of that push is that Hawaii must be prepared to handle the recycling of a growing number of lithium-ion batteries, which are highly flammable, dangerous to ship, damaging to the environment, and toxic to humans.¹

Finding a safe way to recycle these batteries is important. However, one element of HB1972 that is problematic is that it would make the producers of EV batteries responsible for the end-of-life management of those batteries.

"Producers" under this bill are defined as manufacturers, licensees and importers of the electric vehicles, as well as battery manufacturers, remanufacturers and importers. By attempting to make car and battery manufacturers and distributors responsible for the disposal of EV batteries, this bill is likely to frustrate its own goals.

¹ Taotianchen Wan and Yikai Wang, ["The Hazards of Electric Car Batteries and Their Recycling,"](#) IOP Conference Series: Earth and Environmental Science, 2022.

Such a requirement can possibly work in a large state such as California, where business volume is greater and businesses can more easily absorb the sharp cost increases. But businesses in Hawaii do not have the same power.

Our small market and remote location reduces the state's ability to require compliance from producers and manufacturers, especially if the cost of compliance is so great that it would be more economically efficient to simply stop doing business in Hawaii.

If this program were part of a coordinated effort from multiple states to increase manufacturer responsibility for battery recycling, it would stand a greater chance of success. However, without that higher level of participation, we run the real risk that manufacturers will find it more expedient to simply end all sales and shipments to Hawaii.

Alternatively, this program could increase the price of electric vehicles and batteries to the point that most residents will not be able to afford them, and the state will not be able to rely on EV adoption to meet its sustainability goals.

Finally, there is the fact that the bill would eliminate any pathway to local disposal or the growth of a local processing or treatment industry. That would further increase the costs that must be borne by producers, increase the risks involved with shipping and disposal, and could incentivize illegal disposal.

Nor should the Committee overlook the possibility that federal law may end up further regulating the transport, sales and storage of these batteries — which would create additional complications for the proposed program.

We must find a way to safely recycle these batteries, but the program outlined in HB1972 would likely fail to achieve that goal.

Where the bill might succeed, however, is in reducing the scope of the problem by unintentionally stopping the sale of electric vehicles in Hawaii.

Thank you for the opportunity to testify.

Ted Kefalas
Director of Strategic Campaigns
Grassroot Institute of Hawaii



Scott Cassel
Chief Executive Officer/Founder

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OK Dept. of Environmental Quality

Mia Roethlein
VT Dept. of Environmental Conservation

Joe Rotella
RI Resource Recovery Corporation

Christina Seibert
Solid Waste Agency of Northern Cook County, IL

Honorary Director

Walter Willis
Solid Waste Agency of Lake County, IL

Scott Klag
Retired, formerly Metro, OR

February 5, 2024

Representative Nicole Lowen, Chair
Representative Elle Cochran, Vice Chair
House Committee on Energy & Environmental Protection
Hawaii State Legislature
415 South Beretania Street
Honolulu, HI 96813

RE: Support for HB 1972, Relating to Electric Vehicle Batteries

Dear Chair Lowen, Vice Chair Cochran, and Members of the Committee:

Thank you for the opportunity to submit testimony in **support** of **HB 1972**, which will provide a producer funded and managed stewardship program in Hawaii for the collection and recycling of unwanted electric vehicle (EV) batteries.

In Hawaii, the number of registered EVs grew significantly over the past few years, including a 30 percent spike over the past year alone (see footnotes 1 and 2). These batteries will need to be safely collected, reused, and recycled to protect human health and the environment, as well as to drive the circular economy. EV batteries contain critical minerals (e.g., cobalt, lithium, nickel, graphite, and manganese) that are expected to grow in demand and whose supply chains have a high risk of disruption.

While providing consumers with a manufacturer-funded and convenient way to recycle EV batteries, HB 1972 will also reduce greenhouse gas (GHG) emissions and remove toxic substances from the waste stream. Batteries contain valuable materials that must be mined using energy-intensive processes that emit GHGs. Collecting and recycling batteries saves valuable resources and reduces environmental and human health impacts.

In addition, there has been an increase in fires at waste management facilities caused by lithium-ion batteries. Recycling will help prevent the health and safety hazards posed by these discarded products entering the waste stream. Legislated stewardship programs also provide a continuous flow of high-quality material to battery recyclers and manufacturing operations, allowing long-term investments in local recycling and manufacturing facilities that use recycled materials as a feedstock for new product manufacturing. HB 1972 will increase the number of batteries recycled, create jobs, and reduce the financial burden on local governments, who would be left to manage these materials in the absence of a stewardship program.

HB 1972 contains best practices in all successful U.S. stewardship laws, including:

- Plan developed by producers that provides them with flexibility to implement a consistent program;
- Provisions to revise the plan if recommended by the Department;
- Public education and outreach to raise awareness of the program;
- Funding for the state to oversee and enforce the law;
- Disposal ban; and
- Penalties for noncompliance with the law.

PSI recommends the following changes to strengthen the bill:

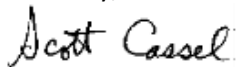
- Minimum convenience standards to ensure that the public has convenient, equitable, and statewide access to the collection system;
- Performance goals that will lead to increased quantities of batteries collected, reused, repurposed, and recycled; and
- Annual reporting by producers to the state to monitor program implementation and provide transparency.

HB 1972 follows a trend in the U.S. over the past decade to expand the scope of batteries regulated to prevent health and environmental impacts and to recover valuable materials. Vermont, Washington DC, California, and Washington have all enacted battery EPR laws based on EPR models that our organization, the Product Stewardship Institute (PSI), has developed, in most cases directly with support from the battery industry.

PSI is a national policy expert and consulting nonprofit that pioneered product stewardship in the United States along with a coalition of hundreds of state and local government officials. Since 2000, PSI has worked with numerous others to develop producer responsibility policies for many of the 136 such laws enacted for 18 industry sectors. To advance battery stewardship in the U.S., PSI has facilitated national multi-stakeholder battery stewardship meetings, developed battery stewardship policy briefing documents, and held several webinars on the topic. We have also held numerous meetings with governments, battery collectors, recyclers, producers, and environmental groups.

I urge you to **support HB 1972** for the financial and environmental health of Hawaii's economy. If you have any questions, please feel free to contact me at (617) 513-3954, or Scott@ProductStewardship.US.

Sincerely,



Scott Cassel
Chief Executive Officer/Founder

Footnote 1: Hawaii Department of Business, Economic Development & Tourism, 2024. *Monthly Energy Trend Highlights, December 2023 Highlights*. January 9, 2024. Accessed on February 5, 2024 at https://dbedt.hawaii.gov/economic/files/2024/01/Energy_Trend.pdf.

Footnote 2: Hawaii Department of Business, Economic Development & Tourism, 2024. *Monthly Energy Data: Historical data from January 2006 to December 2023*. Accessed on February 5, 2024 at <https://dbedt.hawaii.gov/economic/energy-trends-2/>.



SanHi

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 6, 2024

TO: Representative Nicole E. Lowen
Chair, Committee on Energy and Environmental Protection

FROM: Tiffany Yajima

RE: **H.B. 1972 – Relating to Electric Vehicle Batteries**
Hearing Date: Tuesday, February 6, 2024 at 10:00 a.m.
Conference Room: 325

Dear Chair Lowen, Vice Chair Cochran, and Members of the Committee on Energy and Environmental Protection:

On behalf of the Alliance for Automotive Innovation (“Auto Innovators”) we submit these **comments** expressing concerns on H.B. 1972, Relating to Electric Vehicle Batteries.

The Alliance for Automotive Innovation is the singular, authoritative and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the Alliance for Automotive Innovation represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. Members include motor vehicle manufacturers, original equipment suppliers, technology, and other automotive-related companies and trade associations.

This measure would establish a battery management program under the Department of Health and require EV battery producers to develop and submit a battery management plan to the department for review and approval, subject to additional program management fees. While automakers appreciate the intent of this measure to encourage EV battery recycling, we believe that this bill is unnecessary because there is no actual problem with EV battery disposal and a system is already in place for EV battery management.

First, because Li-ion batteries contain valuable materials that can be recovered and reused, and also require professional removal due to their weight, size, and voltage, electric vehicle batteries remain in a vehicle and cannot be simply discarded or abandoned on a street as waste.

Second, a system already is in place for EV battery reuse, repurposing and recycling when these batteries are no longer suitable for use in a vehicle. For example, in the life cycle of a battery, when an EV battery begins to show signs of failure, these battery modules or packs can first be refurbished to as good or better quality and performance levels through the replacement of worn or deteriorated components and can then be re-certified to OEM specifications. If a battery module or pack cannot be reused, these batteries and components can also be refurbished on the secondary market to fulfill a different use from what was originally intended. At the end of the life of a battery, EV

batteries can be processed to recover the maximum amount of raw materials for reuse in identical or alternative industries.

Third, automakers have already adopted a “Full Vehicle Backstop” program. The Full Vehicle Backstop program covers the whole electric vehicle – not just the battery – for vehicles that have reached end-of-life, that is unwanted without parts removed by a dismantler. Under the program, the vehicle manufacturer is responsible to accept the vehicle and ensure that it is properly dismantled, and the lithium-ion battery is properly reused, refurbished, or recycled.

As the makers of the electric vehicles that use these batteries, Auto Innovators strongly support and encourage battery management and recycling but believe that this program is an unnecessary use of government resources for the reasons stated above. As such, we respectfully ask the committee to defer this measure in its current form. However, if the committee is inclined to pass this measure, Auto Innovators would first support a study or working group to examine the current environment for battery recycling and would be happy to serve as a resource to the legislature and the Department of Health to further understand the problem that this measure seeks to address.

Thank you for the opportunity to submit this testimony.



February 6, 2024

TO: Chair Nicole E. Lowen
Vice Chair Elle Cochran
Members of the Committee on Energy & Environmental Protection

FR: Noelani Derrickson
Public Policy & Business Development

RE: **HB1972 Relating to Electric Vehicle Batteries. - SUPPORT**

Thank you for the opportunity to provide testimony regarding HB1972.

Tesla **supports the intent of HB1972** as it provides a safety net for the collection and management of vehicle propulsion batteries, clarifies the responsibilities of electric vehicle battery producers, and establishes requirements for an EV battery management plan.

We look forward to continuing to work with the authors of HB1972 and its companion bill, SB2311, to further clarify requirements.

Thank you,

Noelani Derrickson |

HB-1972

Submitted on: 1/31/2024 7:22:39 PM

Testimony for EEP on 2/6/2024 10:00:00 AM

| Submitted By | Organization | Testifier Position | Testify |
|---------------------|---------------------|---------------------------|---------------------------|
| Justin Silva | Individual | Support | Written Testimony Only |

Comments:

Establishes an electric vehicle battery recycling and disposal program.

HB-1972

Submitted on: 2/4/2024 5:25:59 PM

Testimony for EEP on 2/6/2024 10:00:00 AM

| Submitted By | Organization | Testifier Position | Testify |
|---------------------|---------------------|---------------------------|---------------------------|
| Tamara Paltin | Individual | Support | Written Testimony Only |

Comments:

Support for HB1972 we need to establish a way that EV batteries are not ending up in the landfill or the bushes.

Mahalo,

Tamara Paltin

HB-1972

Submitted on: 2/4/2024 9:20:39 PM

Testimony for EEP on 2/6/2024 10:00:00 AM

| Submitted By | Organization | Testifier Position | Testify |
|---------------------|---------------------|---------------------------|---------------------------|
| Ted Bohlen | Individual | Support | Written Testimony Only |

Comments:

Support!