

# HAWAII STATE ENERGY OFFICE STATE OF HAWAII

235 South Beretania Street, 5<sup>TH</sup> Floor, Honolulu, HI 96813 | energy.hawaii.gov

DAVID Y. IGE  
GOVERNOR

SCOTT J. GLENN  
CHIEF ENERGY OFFICER

(808) 587-3807

Testimony of  
**SCOTT J. GLENN, Chief Energy Officer**

before the  
**HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION  
AND  
TRANSPORTATION**

Tuesday, February 4, 2020

11:05 AM

State Capitol, Conference Room 325

In SUPPORT of  
**HB 2462**  
**RELATING TO ELECTRIC VEHICLES.**

Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto, and members of the Committees. The Hawaii State Energy Office (HSEO) supports HB 2462 that establishes the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles and appropriates funds.

Emissions from ground transportation such as passenger cars, light trucks, motorcycles, and heavy-duty vehicles still account for the largest share of energy sector emissions in the state. As noted in the 2016 Greenhouse Gas Inventory, transportation emissions in Hawaii were at 8.69 million metric tonnes of carbon dioxide equivalents, accounting for 51 percent of energy sector emissions. Ground transportation accounted for 47 percent of those transportation emissions. For Hawaii to meet its target to sequester more greenhouse gases than we emit as soon as practicable but no later than 2045 (Hawaii Revised Statutes §201-12.8 Energy Security Special Fund), programs that support the adoption of cleaner transportation options are extremely important.

Eliminating emissions from ground transportation sector will require significant adoption of both public and privately owned EVs. The retail cost of electric vehicles has been noted as a barrier to electric vehicle adoption. Establishing electric vehicle incentives for the purchase of new electric vehicles would aid the consumers in the adoption of electric vehicles and send a clear signal to the market that Hawaii supports electric vehicles. A market signal is important in that EV models are being introduced for new vehicle segments, such as light duty trucks, and positioning Hawaii as an EV positive market can help direct limited inventory of those new models to Hawaii. Increased adoption of electric vehicles aligns with the state's clean energy

goals and supports the HSEO's efforts promote clean transportation and lead efforts to incorporate clean transportation to reduce costs and achieve address a significant portion of Hawaii's carbon emissions.

The HSEO will coordinate with identified agencies on the specific implementation structure and defers to impacted state agencies on the budget considerations related to implementing an EV incentive program.

Thank you for the opportunity to testify.



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

**Testimony of**  
**Anukriti Hittle**  
**Coordinator, Hawaii Climate Change Mitigation and Adaptation Commission**

**Before the House Committees on**  
**ENERGY AND ENVIRONMENTAL PROTECTION**  
**and**  
**TRANSPORTATION**

**Tuesday, February 4, 2020**  
**11:05AM**  
**State Capitol, Conference Room 325**

**In support of**  
**HOUSE BILL 2462**  
**RELATING TO ELECTRIC VEHICLES**

House Bill 2462 proposes to establish the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles. **On behalf of the Hawaii Climate Change Mitigation and Adaptation Commission (Commission) I offer the following comments in support of this measure.**

The Hawaii Climate Change Mitigation and Adaptation Commission “recognizes the urgency of climate threats and the need to act quickly. It promotes ambitious, climate-neutral, culturally responsible strategies for climate change adaptation and mitigation in a manner that is clean, equitable and resilient.” The Commission, established by Act 32 SLH 2017 to uphold the United States’ pledges under the Paris Agreement, is the coordinating body for policies on climate change mitigation and adaptation for the state. It is a high-level multi-jurisdictional body that guides the priorities of the state’s climate response. Co-chaired by DLNR and Office of Planning, it consists of 20 members—chairs of four legislative committees, and executive department heads at the county and state levels.

Transportation (air and ground) is the single largest source of greenhouse gas emissions (GHG) in Hawaii, and mirrors a nationwide trend--according to EPA, transportation was the largest source of GHG emissions in 2017. Reducing emissions from ground transportation is one of two major focuses of the Commission, and a transition to clean renewable fueled vehicles is a crucial strategy to achieve state goals. Such conversions include electrification of transportation, and the use of clean, renewable fuels, and a rebate program could be critical in promoting this transition to clean transportation.

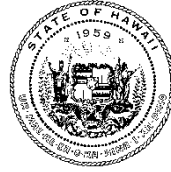
**Co-Chairs:**  
Chair, DLNR  
Director, Office of Planning

**Commissioners:**  
Chair, Senate AEN  
Chair, Senate WTL  
Chair, House EEP  
Chair, House WTH  
Chairperson, HTA  
Chairperson, DOA  
CEO, OHA  
Chairperson, DHHL  
Director, DBEDT  
Director, DOT  
Director, DOH  
Chairperson, DOE  
Director, C+C DPP  
Director, Maui DP  
Director, Hawai'i DP  
Director, Kaua'i DP  
The Adjutant General  
Manager, CZM

In its November 2018 statement supporting a price on carbon, the Commission emphasized that carbon fee program mechanisms should minimize regressivity. It therefore would urge any rebate program to consider and address currently underserved and vulnerable populations in an equitable manner, and that the measure include reference to such equity.

Thank you for the opportunity to comment in support of this measure.

DAVID Y. IGE  
GOVERNOR



CURT T. OTAGURO  
Comptroller  
AUDREY HIDANO  
Deputy Comptroller

**STATE OF HAWAII**  
**DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES**

P.O. BOX 119, HONOLULU, HAWAII 96810-0119

TESTIMONY  
OF  
CURT T. OTAGURO  
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES  
TO THE  
HOUSE COMMITTEES  
ON  
ENERGY AND ENVIROMENTAL PROTECTION  
AND  
TRANSPORTATION

FEBRUARY 4, 2020, 2:45 P.M.  
CONFERENCE ROOM 325, STATE CAPITOL

H.B. 2462

RELATING TO ELECTRIC VEHICLES

Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto, and members of the Committees, thank you for the opportunity to testify on H.B. 2462.

The Department of Accounting and General Services (DAGS) offers support on H.B. 2462 which offers an income tax credit for purchasing an Electric Vehicle.

Currently Act 168 Session Laws of Hawaii 2012 exempts Electric Vehicles for certain parking fees collected by State and County agencies. This law was enacted to encourage the adoption of the purchase of Electric Vehicles. **Studies show consumers would purchase these vehicles as pricing and driving range improve. This law has served its intended purpose and expires in June 2020.**

An alternative which provides a viable incentive would be a tax credit for purchasing an Electric Vehicle. H.B. 2462 may be more conducive for the consumer to purchase these vehicles.

Additionally, this type of tax credit could also be applied to Level 2 or 3 Electric Vehicle Charging Station installations.

There is an approximate \$5000-\$8000 cost difference between a gas vehicle and a comparable Electric Vehicle. The tax credit may be a viable method to make Electric Vehicles more affordable.

Thank you for the opportunity to testify on this matter

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

ROBERT YU  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII  
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**  
TESTIMONY BY CRAIG K. HIRAI  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION  
AND TRANSPORTATION  
ON  
HOUSE BILL NO. 2462

**February 4, 2020  
11:05 a.m.  
Room 325**

RELATING TO ELECTRIC VEHICLES

The Department of Budget and Finance offers comments on House Bill (H.B) No. 2462.

H.B. No. 2462 requires the Public Utilities Commission (PUC) to administer an Electric Vehicle Rebate Program (EVRP) to incentivize the purchase of new electric vehicles (EV); authorizes the PUC to contract with a third-party administrator pursuant to Section 269-73, HRS, to operate and manage the EVRP; sets eligibility criteria for EV rebate applications to the PUC for new EV purchases made after July 1, 2020; establishes the Electric Vehicle Rebate Special Fund (EVRSF) to provide rebates not to exceed \$2,000 per qualifying purchase and for operating costs; amends Section 243-3.5, HRS, to allocate an unspecified amount of the Environmental Response, Energy, and Food Security Tax (Barrell Tax) to the EVRSF; and appropriates an unspecified amount from the EVRSF for FY 21 for the EVRP.

As a matter of general policy, the department does not support the creation of any special fund which does not meet the requirements of Section 37-52.3, HRS.

Special funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. In regards to H.B. No. 2462, it is difficult to determine whether the proposed special fund would be self-sustaining.

We would like to note that additional allocations from the Barrel Tax without an increase in tax rate will result in a general fund loss, which could impact the Administration's ability to fund priority initiatives.

Thank you for your consideration of our comments.



TESTIMONY OF  
JAMES P. GRIFFIN, Ph.D.  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII

TO THE  
HOUSE COMMITTEES ON  
ENERGY AND ENVIRONMENTAL PROTECTION  
AND  
TRANSPORTATION

February 4, 2020  
11:05 a.m.

Chair Lowen, Chair Aquino, and Members of the Committees:

**MEASURE:** H.B. No. 2462

**TITLE:** RELATING TO ELECTRIC VEHICLES.

**DESCRIPTION:** Establishes the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles. Appropriates funds.

**POSITION:**

The Public Utilities Commission supports this measure and offers the following comments for consideration.

**COMMENTS:**

The Commission supports this measure's intent to accelerate the achievement of clean transportation goals. The Commission currently administers the Electric Vehicle Charging System rebate program and is willing to administer a rebate program for electric vehicles in conjunction.

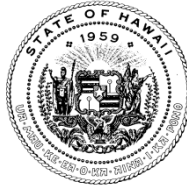
The Commission recommends removing the requirement that electric vehicles be "intended to be charged primarily by renewable energy sources" or be "able to be integrated intelligently with the electrical grid" on page 2, lines 16-20.

While the Commission supports the intent of these requirements, they could be difficult to administer, and it is unclear whether electric vehicles sold today would be eligible for the rebate under these terms on all islands. In addition, the Commission and electric utilities are already working towards the intent of these requirements by meeting the existing renewable portfolio standards and implementing new programs to support intelligent vehicle charging.

For these reasons, the Commission believes that this program would be better equipped to achieve its intent without these two requirements. The Commission supports this measure with the suggested amendments and is interested in working with the committees and interested stakeholders as this bill moves forward.

Thank you for the opportunity to testify on this measure.

DAVID Y. IGE  
GOVERNOR



**TESTIMONY BY:**

JADE T. BUTAY  
DIRECTOR

Deputy Directors  
LYNN A.S. ARAKI-REGAN  
DEREK J. CHOW  
ROSS M. HIGASHI  
EDWIN H. SNIFFEN

**LATE**

**STATE OF HAWAII**  
**DEPARTMENT OF TRANSPORTATION**  
869 PUNCHBOWL STREET  
HONOLULU, HAWAII 96813-5097

February 4, 2020  
11:05 a.m.  
State Capitol, Room 325

**H.B. 2462**  
**RELATING TO ELECTRIC VEHICLES.**

House Committee(s) on Energy & Environmental Protection and Transportation

The Department of Transportation **supports** this bill which establishes the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles.

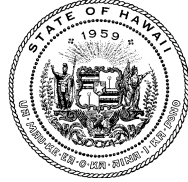
The DOT concurs with the Public Utilities Commission who is best suited to administer the electric vehicle rebate program to incentivize the purchase of new electric vehicles.

The DOT continues to work and collaborate with all stakeholders on strategies towards the electrification on transportation in order to meet timelines of the State's clean transportation goals.

Thank you for the opportunity to provide testimony.

**DAVID Y. IGE**  
GOVERNOR

**JOSH GREEN M.D.**  
LT. GOVERNOR



STATE OF HAWAII  
**DEPARTMENT OF TAXATION**  
P.O. BOX 259  
HONOLULU, HAWAII 96809  
PHONE NO: (808) 587-1540  
FAX NO: (808) 587-1560

**RONA M. SUZUKI**  
DIRECTOR OF TAXATION

**DAMIEN A. ELEFANTE**  
DEPUTY DIRECTOR

To: The Honorable Nicole E. Lowen, Chair;  
The Honorable Tina Wildberger, Vice Chair;  
and Members of the House Committee on Energy & Environmental Protection

To: The Honorable Henry J.C. Aquino, Chair;  
The Honorable Troy N. Hashimoto, Vice Chair;  
and Members of the House Committee on Transportation

From: Rona M. Suzuki, Director  
Department of Taxation

Re: **H.B. 2462, Relating to Electric Vehicles**

Date: Tuesday, February 4, 2020

Time: 11:05 A.M.

Place: Conference Room 325, State Capitol

The Department of Taxation (Department) appreciates the intent of this measure and provides the following comments regarding H.B. 2462.

This measure establishes the electric vehicle rebate program under the auspices of the Public Utilities Commission to award rebates for the purchase of new electric vehicles. It also amends the barrel tax under section 243-7, Hawaii Revised Statutes, to an unspecified amount. The measure is effective on July 1, 2020.

The Department respectfully requests that the change in barrel tax be made effective January 1, 2021 to provide sufficient time to make the necessary form changes.

Thank you for the opportunity to provide comments.



P.O. Box 37158, Honolulu, Hawai'i 96837-0158  
Phone: 927-0709 [henry.lifeoftheland@gmail.com](mailto:henry.lifeoftheland@gmail.com)

**COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

Rep. Nicole E. Lowen, Chair  
Rep. Tina Wildberger, Vice Chair

**COMMITTEE ON TRANSPORTATION**

Rep. Henry J.C. Aquino, Chair  
Rep. Troy N. Hashimoto, Vice Chair

DATE: Tuesday, February 4, 2020  
TIME: 11:05 a.m.  
PLACE: Conference Room 325

HB 2462 Electric Vehicles

**STRONG SUPPORT**

Aloha Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto and, and Members of the Committee

Life of the Land is Hawai'i's own energy, environmental and community action group advocating for the people and `aina for 50 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Every effort should be made to electrify transportation.

The bill states, "The public utilities commission, in consultation with electric vehicle stakeholders and the state energy office ..." The Commission always consults with anyone who wants to be consulted with, but by listing specific parties, one could assume the Legislature inadvertently was signaling favoritism. It would be cleaner to say, "The public utilities commission shall open a docket and shall administer ..."

Mahalo  
Henry Curtis  
Executive Director



## HB 2462, RELATING TO ELECTRIC VEHICLES

FEBRUARY 4, 2020 · HOUSE ENERGY AND ENVIRONMENTAL PROTECTION COMMITTEE AND HOUSE TRANSPORTATION COMMITTEE · CHAIRS REP. NICOLE E. LOWEN AND REP. HENRY J.C. AQUINO

**POSITION:** Support.

**RATIONALE:** IMUAlliance supports HB 2462, relating to electric vehicles, which establishes the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles.

According to a report produced by the Hawai'i Climate Change Mitigation and Adaptation Commission, global sea levels could rise more than three feet by 2100, with more recent projections showing this occurring as early as 2060. In turn, over the next 30 to 70 years, approximately 6,500 structures and 19,800 people statewide will be exposed to chronic flooding.

Additionally, an estimated \$19 billion in economic loss would result from chronic flooding of land and structures located in exposure areas. Finally, approximately 38 miles of coastal roads and 550 cultural sites would be chronically flooded, on top of the 13 miles of beaches that have already been lost on Kaua'i, O'ahu, and Maui to erosion fronting shoreline armoring, like seawalls.

Furthermore, according to research conducted by Michael B. Gerrard from Columbia Law School, modern-day slavery tends to increase after natural disasters or conflicts where large numbers of people are displaced from their homes. In the decades to come, says Gerrard, **climate change**

**will very likely lead to a significant increase in the number of people who are displaced and, thus vulnerable, to human trafficking.** While the Paris Climate Agreement of 2015 established objectives to limit global temperature increases and several international agreements are aimed at combating modern-day slavery, it is highly uncertain whether they will be adequate to cope with the scale of the problem that is likely to occur as a result of climate change.

As we work to reduce carbon emissions and stave off the worst consequences of climate change, we must begin preparing for the adverse impact of sea level rise on our shores. We are now quantifying the speed at which we must act. We cannot continue to develop the 25,800-acre statewide sea level rise exposure area—one-third of which is designated for urban use—without risking massive structural damage and, potentially, great loss of life.

Therefore, **our state must take bold steps to address the worsening climate crisis, which is exacerbated by a transportation sector that is still too heavily reliant on fossil fuels, like oil and natural gas.** According to the U.S. Energy Information Administration, the burning of fossil fuels was responsible for 76 percent of U.S. greenhouse gas emissions in 2016. These gases contribute to the greenhouse effect and are a primary driver of the pending climate catastrophe.

Honolulu and Maui Counties recently announced lawsuits against fossil fuel companies for the role they have played in the climate crisis. Just like with tobacco and pharmaceutical companies, fossil fuel corporations are being held financial accountable for taking reckless actions that jeopardized public health. At the same time, we should work to **divest our state's transportation sector from contributing to global harm by taking steps to incentivize the public purchase of electric vehicles and ensure that government vehicles are part of Hawai'i's pathway toward reducing carbon emissions, ultimately bankrupting the businesses that have placed our planet in peril and helping to limit global warming below 1.5 degrees Celsius.**

For the sake of our overheating Earth, we cannot afford to wait.



## TESTIMONY REGARDING HB 2462

**being heard jointly by the House Committee on Energy and Environmental Protection  
and the House Committee on Transportation  
on Tuesday, February 4, 2020 at 11:00 AM**

Aloha Chair Lowen, Chair Aquino, and Members of the Committees:

Thank you for the opportunity to provide input on HB 2462 which would create an electric vehicle rebate program, to be administered by the Public Utilities Commission. Tesla supports this measure if it is amended to address the concerns enumerated below.

Tesla's mission is to accelerate the world's transition to sustainable energy through the deployment of electric vehicles and sustainable energy products, like storage and solar energy systems. Tesla is the only domestic mass market automobile manufacturer that exclusively builds and sells electric vehicles. To date we have sold over 900,000 EVs globally.

In 2018, the state of Hawaii established an ambitious goal to eliminate the use of fossil fuels from ground transportation by 2045, recognizing the profound economic, energy security and environmental challenges that dependency on fossil fuels imposes on Hawaii and its residents. Additionally, in 2018 Hawaii Electric issued its Electrification of Transportation Strategic Roadmap, which among other things, found that the deployment of electric vehicles yielded substantial operational benefits and cost savings to all customers.<sup>1</sup> Collectively these factors strongly suggest that a rebate program, like that proposed by this measure, is very much in the public interest.

Tesla also supports the funding mechanism proposed by this measure, through a fee assessed per barrel of petroleum products sold. Absent a carbon tax or other more comprehensive means of internalizing the full environmental, public health, and economic impact of burning fossil fuels, the bill's approach is an effective and reasonable means reflecting the societal costs of fossil fuel consumption in the price of fuel while also driving adoption of more efficient vehicles.

Although Tesla is supportive of this measure's intent as drafted, the bill includes a number of provisions which are needlessly prescriptive and should be removed. Specifically, in order to qualify, the bill indicates that qualifying EVs "intend to be charged primarily by renewable energy sources" or "that they are able to be integrated intelligently into the grid". Tesla is concerned that these could result in the imposition of specific operational requirements that will be very challenging to implement or to enforce. To that end, we recommend striking both of these eligibility requirements.

---

<sup>1</sup> Hawaii Electric Electrification of Transportation Strategic Roadmap; pp. 35-36; March 29, 2018; available for download at [https://www.hawaiielectric.com/documents/clean\\_energy\\_hawaii/electrification\\_of\\_transportation/201803\\_eot\\_roadmap.pdf](https://www.hawaiielectric.com/documents/clean_energy_hawaii/electrification_of_transportation/201803_eot_roadmap.pdf)





Regarding the first criterion, there is no practical means by which an EV owner can ensure that their vehicle is primarily charged from renewable resources. The resources that are used to generate electricity are determined primarily by the resource decisions of the utility that a customer takes service from. As such this condition holds customers accountable for things that are by and large beyond their control, or gives rise to the possibility that EV drivers participating in this program would be required to charge during a limited window when there is an abundance of renewable energy on the system. Such constraints will make living with an EV needlessly difficult and deter adoption. Furthermore, given the state's clean energy mandates, including stringent directives to the utilities to dramatically increase their reliance on renewable resources, establishing such a requirement seems unnecessary.

Regarding the second criterion, Tesla is similarly concerned that this may result in the promulgation of highly prescriptive operational, hardware and/or software requirements that will undermine the practical ability to participate in this program. Generally the issue of integrating EVs into the grid can be addressed through effective rate design and programs. For example, time-of-use rates that offer lower charges during times of less demand or high renewables production are a highly effective means of encouraging customers to charge their vehicles at times when doing so will not put undue strain on the grid or when doing so coincides with renewable production. Virtually every modern EV has the ability to be programmed to charge at certain times and thus be responsive to these kinds of price signals. Thus, in Tesla's view, they already meet this conditional requirement. However, leaving this language in the bill is asking for trouble to the degree it creates a window for the imposition of a much more complicated and problematic regime.

Our concerns are further compounded by the definition of "integrated intelligently with the electrical grid" which appears to envision a scenario where the utility or some other entity other than the customer controls when the vehicle charges. Given the fundamental importance of mobility in people's lives, we do not think that such a vision is practical and implementing it would deter many people from participating in this program and undermine its efficacy. Tesla asks that this language also be stricken.

Tesla is additionally concerned that the bill does not sufficiently address the amount of time it may take to implement the program. For example, it is not inconceivable that the program will take more than a year to implement. This could mean that some customers may not have the ability to submit their application within the twelve month timeframe allowed in the bill to the extent the program is not operational within 12 months of their purchase. To address this, Tesla asks that the language regarding the timeframe within which an application needs to be submitted be changed as follows (underlined text indicates additions, strikethrough text indicates deletions):

(h) Applicants shall submit applications to the public utilities commission within twelve months of the date of completion of the purchase or lease, licensing, and registration of an applicable electric vehicle or within 12 months of the date the rebate program begins accepting applications, whichever is later. Failure to apply to the commission within the applicable timeframe ~~twelve months~~ shall constitute a waiver of the right to claim the rebate.



Finally, Tesla notes that the definition of “electric vehicle” is inappropriately broad as it includes plug-in hybrid vehicles which have up to 95% of their range powered by a fossil fuel engine. For those supporters of this bill who want to see bold action on climate, and reducing the state’s reliance on fossil-fuels, imagine incenting a power plant that is 95% coal and only 5% renewable energy. Tesla would recommend modifying the definition of electric vehicle as follows for purposes of eligibility for the proposed rebate such that qualifying vehicles must be exclusively powered by a battery (underlined text indicates additions, strikethrough text indicates deletions):

(k) As used in this section:

~~“Electric vehicle” has the same meaning as contained in 19 Section 30D of the Internal Revenue Code for “new qualified 20 plug-in electric drive motor vehicle”~~ means a vehicle, with four or more wheels, that draws propulsion energy exclusively from a battery and that can be recharged from an external source of electricity.

This will ensure that the state is only incenting vehicles that are fully consistent with the objective of eliminating reliance on fossil fuels from ground transportation.

Tesla appreciates the opportunity to submit this testimony. With amendments discussed above, we believe this measure could play an important role in facilitating Hawaii’s clean transportation objectives.

**HB-2462**

Submitted on: 2/3/2020 7:46:40 AM

Testimony for EEP on 2/4/2020 11:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Noel Morin	Hawaii Electric Vehicle Association, Big Island Electric Vehicle Association	Support	No

Comments:

Dear Chair Lowen, Vice Chair Wildberger, and members:

I lead the Hawaii Electric Vehicle Association. We strongly support HB2493.

Hawaii’s transportation sector contributes more to the climate crisis than any other sector. Our ground transportation consumes about a third of our imported fossil fuel – it contributes to significant carbon emissions. Unfortunately, our gasoline consumption and emissions are still increasing. We must be more aggressive in the decarbonization of our transportation sector; electrification is way to accomplish this. Electric vehicles are many times more efficient that fossil fuel vehicles (80% vs 20%) and naturally contribute to dramatic emissions reductions. They will help enable us to achieve energy independence, don’t contribute to air and noise pollution, and are also more cost effective to maintain and operate.

Electric vehicles are becoming more available and diverse. There will soon be a form factor that meets all needs. That said, the cost of electric vehicles is a barrier to adoption, especially for residents who are price conscious. A rebate for the purchase of an electric vehicle will incentivize residents to make the shift from gas to electric. This was done once in the past (in the 2011 timeframe) and it resulted in the Nissan LEAF making its way into many households in the state.

The proposed fee on expensive gas guzzling vehicles to fund the rebate is brilliant – it will create a funding mechanism while creating a market signal to encourage the shift to more fuel-efficient vehicles.

**Proposed Amendments:**

1) I recommend that the rebate be structured in a manner that incentivizes the purchase of electric vehicles with the highest pure-electric range. This will allow consumers to opt for cars with the lowest emissions potential. One way to do this is to allow for the rebate to be based on the nature of the car’s ability to drive in pure-electric mode, e.g.,

- \$5000 – for Battery Electric Vehicles and Fuel Cell Electric Vehicles
- \$2000 – for Plug In Hybrid Electric Vehicles with >30 mile pure-electric mile range.
- \$500 – for Plug In Hybrid Electric Vehicles with <30 mile pure-electric mile range.

Our focus must ideally be to incentivize non-fossil fuel vehicles. While Plug In Hybrids might offer an acceptable transitional vehicle, particularly in MUD-dense environments, we need to incentivize models with high pure-electric miles. Of course, the optimum are pure-electric vehicles - there are several with over 150 miles of range, more than enough for most residents.

2) Please also consider allowing this rebate to be offered for car leases as a means to further increase affordability.

3) Lastly, consider a tiered rebate based on household income (a larger amount for lower income households, e.g., Rebate amount X 1.25).

Hawaii has the opportunity to lead in the electrification of transportation. We have many reasons for doing so – to contribute to the healing of our planet, to enable energy independence, and to improve the quality of life of Hawaii's residents. HB2493 offers a way to achieve this.

Thank you for your support of this measure.

Thank you,

Noel Morin

President - Hawaii Electric Vehicle Association, Big Island Electric Vehicle Association

(808) 987-7428



**Hawaiian  
Electric**

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON  
ENERGY & ENVIRONMENTAL PROTECTION  
AND  
TRANSPORTATION**

H.B. 2462

**Relating to Electric Vehicles**

Tuesday, February 4, 2020  
11:05 AM, Agenda Item # 2  
State Capitol, Conference Room 325

Michael Colón  
Manager, Electrification of Transportation  
Hawaiian Electric Company, Inc.

Aloha Chair Lowen and Chair Aquino, Vice Chair Wildberger and Vice Chair Hashimoto and Committee Members,

My name is Michael Colón and I am testifying on behalf of Hawaiian Electric Company, Inc. (Hawaiian Electric) in **support of H.B. 2462**, Relating to Electric Vehicles. Hawaiian Electric Company supports this measure because it will help address one of the primary barriers to adoption of electric vehicles, in helping to reduce the overall cost of purchase and supports the strong language that sets the State as a leader in fleet electrification.

H.B. 2462 would be a landmark bill establishing Hawaii as a leader in clean transportation, sending a strong signal to the rest of the country that we recognize the importance of transportation in addressing the growing challenges related to climate change. This bill would also send a strong signal that we all must be active participants in the transition to clean transportation to remain relevant and responsible in the years to come.

Hawaii has achieved the second highest electric vehicle adoption per capita and has done so with relatively few electric vehicle incentives. This bill would create a virtuous circle of funding to bolster the EV market and increase the market competitiveness of these vehicles against fossil fuel burning vehicles. Contrary to prevailing belief, electric vehicle prices are anticipated to come down in the near term, making this bill even more influential in incentivizing adoption and making it more affordable for individuals to convert to EV.<sup>1</sup> Consumers respond positively to vehicle-purchase incentives especially rebates as they tend to prefer an immediate benefit over future savings.

Hawaiian Electric Company considers the expanding benefits for clean fuel vehicles as an important incentive towards incentivizing adoption. Reducing barriers to adoption and facilitating the electrification of transportation is one of the Company's top priorities established in our *Electrification of Transportation Strategic Roadmap*. In addition, the Company applauds the requirement that such vehicles are "integrated intelligently," which the Company interprets as being demand response capable when the technology and programs become available.

The Company is committed to an EV strategy that acknowledges the need for more sustainable transportation options. Done correctly, this bill can continue the tremendous progress that the state has made towards a cleaner and more sustainable transportation future. Accordingly, Hawaiian Electric Company submit these comments in support of H.B. 2462. Thank you for this opportunity to testify.

---

<sup>1</sup> [https://www.greencarreports.com/news/1126308\\_electric-car-battery-prices-dropped-13-in-2019-will-reach-100-kwh-in-2023](https://www.greencarreports.com/news/1126308_electric-car-battery-prices-dropped-13-in-2019-will-reach-100-kwh-in-2023); <https://cleantechnica.com/2019/04/17/bnef-shocker-electric-cars-price-competitive-in-2020-as-battery-costs-plummet/>; <https://articles2.marketrealist.com/2019/08/how-tesla-model-3-lowering-ev-prices-us/#>; <https://about.bnef.com/blog/battery-pack-prices-fall-as-market-ramps-up-with-market-average-at-156-kwh-in-2019/>; <https://www.iflscience.com/technology/battery-costs-drop-even-faster-electric-car-sales-continue-rise/>



Email: [communications@ulupono.com](mailto:communications@ulupono.com)

HOUSE COMMITTEES ON ENERGY AND ENVIRONMENTAL PROTECTION AND  
TRANSPORTATION

Tuesday, February 4, 2020 — 11:05 a.m. — Room 325

**Ulupono Initiative supports HB 2462, Relating to the Electric Vehicles.**

Dear Chair Lowen, Chair Aquino and Members of the Committees:

My name is Amy Hennessey, and I am the Senior Vice President of Communications & External Affairs at Ulupono Initiative. We are a Hawai'i-based impact investment firm that strives to improve our community's quality of life by creating more locally produced food; increasing affordable clean renewable energy and transportation options; and better managing waste and fresh water resources.

**Ulupono supports HB 2462**, which establishes the electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles.

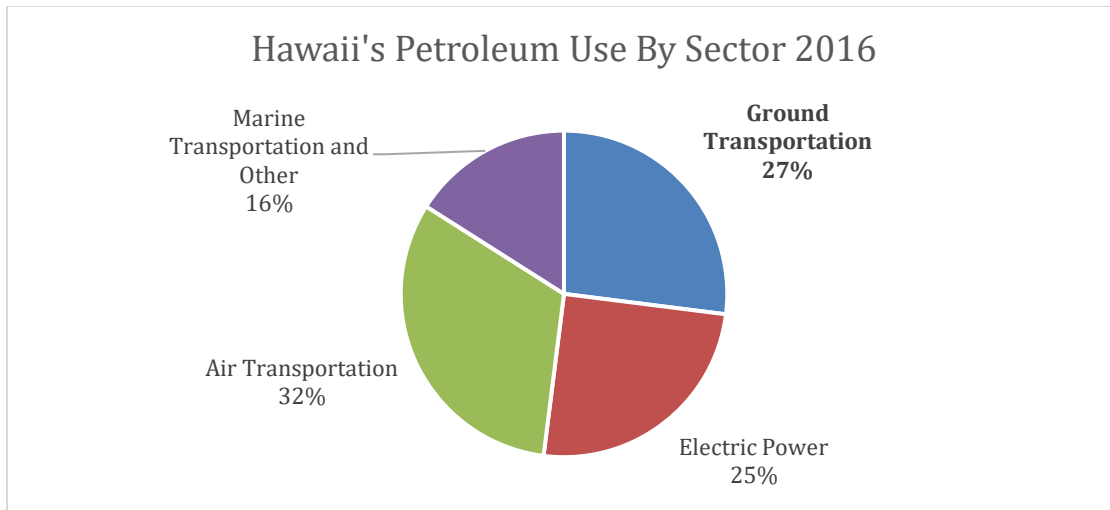
EVs are an important part of addressing Hawai'i's pressing climate issues and align with the State's energy and environmental goals. Ground transportation makes up a significant portion of Hawai'i's reliance on imported oil and the largest contributor to our State's greenhouse gas emissions.

While we would obviously support a larger rebate amount, we do think it is important for the program to i) ensure that the rebate is, or can be, applied at point of sale and ii) consider applying an MSRP cap to exclude the rebate being applied to high end, luxury vehicles. Research shows that these program criteria have been effective at helping to ensure a more balanced and impactful distribution of rebate funds.

**EVs Provide Immediate Energy and Environmental Impact**

Ground transportation alone utilizes more than a quarter of the state's imported petroleum. Electrifying ground transportation will reduce our demand for imported fossil fuels, keeping millions of dollars in the state and cutting harmful pollution.

*Investing in a Sustainable Hawai'i*



*Source: Hawaii State Energy Office – Hawaii Energy Facts & Figures*

Converting from petroleum-based vehicles to EVs immediately reduces GHG emissions, helping combat climate change and its impacts on our islands. EVs produce zero-emissions at the tailpipe, and even when full lifecycle emissions (from manufacturing through disposal) are considered, EV emissions are approximately 50 percent lower than internal combustion engine (ICE) vehicles.

EVs can also support the integration of more renewables on the electric grid with smart charging technology and rate structures. Thus, proliferating EVs throughout Hawai'i can help accelerate progress towards the State's 100 percent RPS goal, as well as contribute to the State's Paris Agreement commitments and carbon neutral goal.

EVs are the future with sales growing by more than 25% in 2019, but they currently only represent less than one percent of all passenger vehicles in the state. Hawai'i must encourage this still nascent market and helping reduce the effective purchase price has shown to be very effective at getting folks to drive electric.

Thank you for this opportunity to testify.

Respectfully,

Amy Hennessey, APR  
Senior Vice President, Communications & External Affairs





**LATE**

**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION  
HOUSE COMMITTEE ON TRANSPORTATION**

February 4, 2020, 11:05 A.M.

Room 325

(Testimony is 3 pages long)

**TESTIMONY IN SUPPORT OF HB 2462**

Aloha Chairs and Lowen and Aquino, Vice Chairs Wildberger and Hashimoto, and members of the committees:

Blue Planet Foundation supports HB 2462, establishing an electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles. Hawaii currently lacks any rebates or monetary incentives to encourage the adoption of clean electric vehicles. We strongly support increasing the existing “barrel tax” (state environmental response, energy, and food security tax) to fund such rebates.

### **Urgent Need for Clean Vehicle Policy**

---

Despite policies adopted by the legislature to set a goal of carbon neutrality for Hawaii by 2045 and for the state to achieve the Paris Climate Agreement objectives, Hawaii is failing to make progress on carbon emissions reductions from the ground transportation sector. Carbon emissions from Hawaii’s cars and trucks grew approximately 6% in 2019 over 2018 levels—an increase of nearly 600 million pounds of greenhouse gas. Overall fossil fuel use for ground transportation statewide is up 10% over the past decade (see Figure 1 on the second page of this testimony). Hawaii drivers are increasingly choosing larger, heavier vehicles, which are often less fuel efficient. According to the Hawaii Auto Dealers Association, pickup trucks and sport utility vehicles accounted for 67.9% of Hawaii vehicle sales in 2018, an increase from 48.7% in 2012. Hawaii currently has no policies to reverse this trend. Unlike numerous other states, Hawaii has no rebates or monetary incentives to encourage the adoption of clean electric vehicles.

Real world evidence demonstrates that increasing fuel prices are a weak incentive for consumers to adopt fuel efficient or fuel-free alternatives until the price of gasoline exceeds \$4 to \$5 per gallon. Unfortunately, despite the highest fuel costs in the nation, Hawaii’s consumers do not choose more efficient vehicles compared to the national average. Additional policy

measures are needed to discourage the purchase of gas guzzling vehicles and accelerate adoption of clean, electric vehicles.

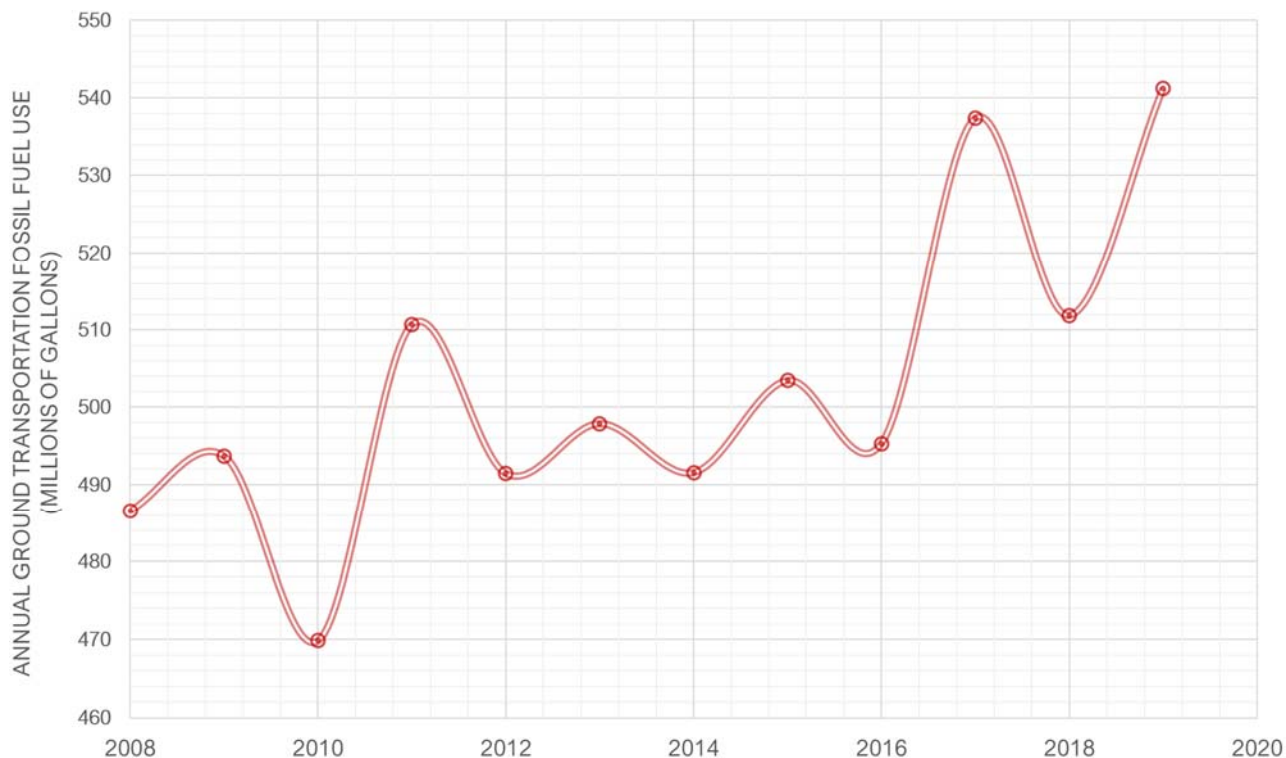


Figure 1: Hawaii Annual Fossil Fuel Consumption for Cars and Trucks

## Electric Vehicles Key to Hawaii’s Renewable Energy Future

Electric vehicles play a critical role in Hawaii’s clean energy future. While EVs that use the existing electricity grid to charge still use some fossil fuel (except on Hawaii Island), they use that fuel far more effectively than burning fuel directly in a typical gasoline engine. This is why EVs are much less expensive to “fuel” per mile than their gasoline counterparts. Further, by using stored electrical energy, EVs can take better advantage of intermittent solar, wind, and other clean energy resources. Most vehicles sit idle over 22 hours of the day, so they can become *de facto* energy storage devices if their batteries are plugged into the grid when they are not in use. With smart grid infrastructure in place, EVs become an essential component to electricity load and clean energy resource balancing—in addition to providing clean mobility solutions for Hawaii residents.

Electric vehicles (EV) are the fastest growing segment of new cars in Hawaii. Over roughly the past year (September 2018 – September 2019), EV registrations statewide increased by 28%,

while registrations of gasoline-powered vehicles grew only 1 percent.<sup>1</sup> We expect the number of registered EVs to grow substantially as new EV models with longer ranges and lower prices hit the market. Still, nearly 1,050,000 fossil fuel-powered vehicles are on Hawaii's roads—and from them comes nearly five million metric tons of climate-changing carbon pollution. Per mile, gasoline-powered vehicles cost more to fuel, operate, and maintain than their zero emission electric counterparts.

Blue Planet Foundation supports HB 2462 to provide an incentive to purchase clean electric vehicles, funded by an expanded fossil fuel tax.

Thank you for the opportunity to testify.

---

<sup>1</sup> DBEDT Monthly Energy Trends, January 2020 (<http://dbedt.hawaii.gov/economic/energy-trends-2/>).



183 Pinana St., Kailua, HI 96734 • 808-262-1285 • info@350Hawaii.org

To: The House Committees on Energy & Environmental Protection;  
and Transportation  
From: Brodie Lockard, Founder, 350Hawaii.org  
Date: Tuesday, February 4, 2020, 11:05 am

**LATE**

**In strong support of HB 2462**

Dear Chairs Lowen and Wakai, and members:

350Hawaii strongly supports HB 2462.

This bill will help EV adoption a great deal. If the lost revenues seem like too much, wait until the bills come in for climate change damages.

Every government official around the world, at every level, is thinking, “Well, we can’t fix climate change.” And sure enough, every government official around the world, at every level, is not fixing climate change. But someone needs to pitch in. Hawaii needs to pitch in.

The transportation sector contributes more to the Climate Crisis than any other sector of Hawaii’s economy. More than two-thirds of the fossil fuel imported into the State is used for transportation.

Driving an EVs is the single biggest contribution a resident can make to fight the Climate Crisis. But they’re still expensive, even though they may be cheaper than a gas car over the life of the vehicle. And the federal tax credit goes away soon, maybe this year.

Our four mayors have already committed to fully-electric fleets.

It’s time for the State to step up. HB 2398 would lead the way for every vehicle in the state to be electric.

Brodie Lockard  
Founder, 350Hawaii.org



*Hawaii Automobile Dealers Association*

John Uekawa, President  
Dave Rolf, Executive Director

**LATE**

HADA Testimony with STRONG SUPPORT of HB2462  
RELATING TO ELECTRIC VEHICLES

Presented to the House Committee On Energy & Environmental Protection and the  
House Committee on Transportation  
at the Public Hearing 11:05 a.m., Tuesday, February 4, 2020  
in Room 325 Hawaii State Capitol

by David H. Rolf for members of the Hawaii Automobile Dealers Association,  
*Hawaii's franchised new car dealers, who provide sales, warranty work and other factory-certified  
maintenance service for Hawaii's privately-owned and fleet-owned cars and light trucks*

Chairs Lowen and Aquino, Vice chairs Wildberger and Hashimoto and members of the committees:

HADA dealers are in strong support of HB2462 which seeks to establish an electric vehicle rebate program of the Public Utilities Commission to award rebates for the purchase of new electric vehicles and appropriates funds.

HADA dealers strongly support the concept of using barrel tax money for the purpose of encouraging EV purchases and encouragement to their owners to sign on on Vehicle-to-Grid (V2G) agreements that allow these vehicles to provide needed battery storage electricity backup for use on the electric grid.

This strong support position is consistent with our longtime HADA testimony in support of using the barrel tax for such environmental purposes, and our longtime support for developing V2G electric vehicle battery storage for the electric grid.

HADA appreciates the opportunity to testify on this measure and respectfully asks that the committees pass the bill on to its next committee for favorable consideration.

Respectfully submitted,  
David H. Rolf  
For the Members of the Hawaii Automobile Dealers Association

**HADA**  
**Making Hawaii Better Together**

**HB-2462**

Submitted on: 2/3/2020 9:39:35 PM

Testimony for EEP on 2/4/2020 11:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Sherry Pollack	Individual	Support	No

Comments:

**LATE**

**HB-2462**

Submitted on: 2/3/2020 3:50:06 AM

Testimony for EEP on 2/4/2020 11:05:00 AM

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Jennifer Azuma Chrupalyk	Individual	Support	No

Comments: