



DAVID Y. IGE
GOVERNOR

MIKE MCCARTNEY
DIRECTOR

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

Statement of
MIKE MCCARTNEY
Director

Department of Business, Economic Development, and Tourism
before the

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

Tuesday, February 5, 2019

9:30 AM

State Capitol, Conference Room #325

In consideration of

HB 1585

RELATING TO THE ENVIRONMENT.

Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto, and Members of the Committees. The Department of Business, Economic Development, and Tourism (DBEDT) offers comments on HB1585 that establishes an electric vehicle (EV) charging system rebate program within the DBEDT, appropriates moneys out of the EV charging station rebate program special fund, and amends the distribution of revenue from the environmental response, energy, and food security tax.

DBEDT appreciates the over-all concept of this bill as it includes initiatives supportive of our goals and objectives, we are concerned about the cost implications generated by this proposal.

Thank you for the opportunity to testify.

DAVID Y. IGE
GOVERNOR

JOSH GREEN M.D.
LIEUTENANT GOVERNOR



LINDA CHU TAKAYAMA
DIRECTOR

DAMIEN A. ELEFANTE
DEPUTY DIRECTOR

LATE

**STATE OF HAWAII
DEPARTMENT OF TAXATION**

830 PUNCHBOWL STREET, ROOM 221
HONOLULU, HAWAII 96813

<http://tax.hawaii.gov/>
Phone: (808) 587-1540 / Fax: (808) 587-1560
Email: Tax.Directors.Office@hawaii.gov

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

The Honorable Henry J.C. Aquino, Chair
and Members of the House Committee on Transportation

Date: Tuesday, February 5, 2019
Time: 9:30 A.M.
Place: Conference Room 325, State Capitol

From: Linda Chu Takayama, Director
Department of Taxation

Re: H.B. 1585, Relating to the Environment

The Department of Taxation (Department) offers the following comments on H.B. 1585 for the Committee's consideration.

H.B. 1585 among other things amends the state environmental response, energy, and food security tax (aka barrel tax) from \$1.05 per barrel to an unspecified amount, and amends the tax on fossil fuel from 19 cents per one million British thermal unit to an unspecified amount. The bill is effective July 1, 2019.

If the Committee wishes to advance the measure, the Department respectfully requests that the effective date of of this bill be delayed to January 1, 2020 to give the Department sufficient time for form, instruction, and computer system changes to implement the changes to the tax rates.

Thank you for the opportunity to provide comments.

DAVID Y. IGE
GOVERNOR



RODERICK K. BECKER
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 RODERICK K. BECKER
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE
TO THE HOUSE COMMITTEES ON ENERGY AND ENVIRONMENTAL PROTECTION
AND TRANSPORTATION
ON
HOUSE BILL NO. 1585

**February 5, 2019
9:30 a.m.
Room 325**

LATE

RELATING TO THE ENVIRONMENT

House Bill (H.B.) No. 1585: establishes an Electric Vehicle Charging System Rebate Program (EVCSR) within the Department of Business, Economic Development and Tourism that provides rebates to persons who install a new electric vehicle charging system or upgrade an existing electric vehicle charging system; caps the total value of rebates issued each year at an unspecified amount; creates the EVCSR Special Fund (Fund) and appropriates an unspecified amount out of the Fund for FY 20 and FY 21; amends the distribution of revenue from the Environmental Response, Energy, and Food Security Tax (Barrel Tax) to unspecified amounts for the Fund; and prohibits the use of moneys from the Energy Security Special Fund to support the State Energy Office.

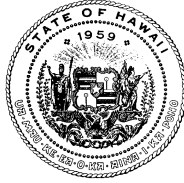
The department generally does not support, as a matter of general policy, the creation of a special fund that does not meet the requirements of Section 37-52.3, HRS. Special funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented 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. 1585, it is difficult to determine whether the proposed special fund would be self-sustaining.

The department would also like to note that while the changes to the Barrel Tax amounts deposited into the Fund are unspecified, any increase above the current Barrel Tax amounts will result in an equal amount of decrease to the general fund and negatively impact the Administration's ability to fund its priorities.

Thank you for your consideration of our comments.

DAVID Y. IGE
GOVERNOR OF HAWAII



BRUCE S. ANDERSON, Ph.D.
DIRECTOR OF HEALTH

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

WRITTEN
TESTIMONY ONLY

**Testimony COMMENTING on HB1585
RELATING TO THE ENVIRONMENT**

LATE

REPRESENTATIVE NICOLE E. LOWEN, CHAIR
COMMITTEE ON WATER, LAND & HAWAIIAN AFFAIRS

REPRESENTATIVE HENRY J. C. AQUINO, CHAIR
COMMITTEE ON TRANSPORTATION

Hearing Date: February 5, 2019

Room Number: 325

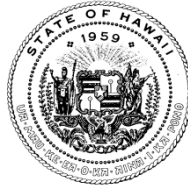
1 **Fiscal Implications:** The Department views the fiscal implications as uncertain given that the measure
2 seeks to change the \$1.05 environmental response, energy, and food security per barrel oil tax rate to an
3 unspecified amount. The Department receives 5 cents of the per barrel oil tax that is deposited into
4 environmental response revolving fund. The measure adds a new electric vehicle charging system rebate
5 program special fund to the tax and does not specify the cents per barrel tax rate that will be levied.

6 **Department Testimony:** The Department offers comments on this measure and appreciates this bill's
7 purpose to "accelerate a transition to cleaner transportation to reach its carbon emission reduction goals."
8 by promoting the creation of more electric vehicle charging infrastructure. In general, the Department
9 supports the development of clean energy, the reduction of carbon emissions, energy conservation, global
10 warming, and other efforts. However, the Department is concerned that a change in the \$1.05 per barrel
11 oil tax rate may end up reducing our financial ability to carry out our statutorily mandated functions to be
12 ready to respond to oils spills and hazardous substances releases to the environment and to protect human
13 health. We defer to the Department of Business, Economic Development, and Tourism on the rest of the
14 measure.

15 **Offered Amendments:** None.

16 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

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

February 5, 2019
9:30 a.m.
State Capitol, Room 325



H.B. 1585
RELATING TO THE ENVIRONMENT.

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

The Department of Transportation (DOT) **supports the intent** of H.B. 1585 which establishes an electric vehicle charging system rebate program within the Department of Business, Economic Development, and Tourism that provides rebates to persons who install a new electric vehicle charging system or upgrade an existing electric vehicle charging system.

The DOT appreciates the electrification of transportation but defers to the fiscal concerns offered by the Hawaii State Energy Office.

Thank you for the opportunity to provide testimony.

**TESTIMONY BEFORE THE HEARING OF JOINT HOUSE COMMITTEES ON
ENERGY & ENVIRONMENTAL PROTECTION
AND
TRANSPORTATION**

H.B. 1585

Relating to the Environment

Tuesday, February 5, 2019
9:30 am, Agenda #1
State Capitol, Conference Room 325

Brennon Morioka
Director, 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 Brennon Morioka and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company (collectively, "Hawaiian Electric") in **support** of H.B. 1585, Relating to the Environment, which seeks to establish an electric vehicle ("EV") charging system rebate program within the Department of Business, Economic Development, and Tourism.

This bill has the potential to be a landmark bill for EV charging in the state, by taking an important step towards supporting and incentivizing the development of one of the crucial components of a clean transportation future. Hawaiian Electric has been at the forefront of the transition to clean transportation and continues to make investments and develop programs that will eventually eliminate the need to import fossil fuels for transportation and energy production in the state.

As a developer of electric vehicle charging infrastructure, the Hawaiian Electric Companies recognize that the robust availability of vehicle charging infrastructure is essential to reducing barriers to adoption of electric vehicles. Studies have shown that the availability of public vehicle charging is a key factor when car buyers consider purchasing a new electric vehicle, even if the customer ultimately intends to charge solely at their residence.

Hawaiian Electric appreciate the many challenges individuals and organizations face when trying to convert to electrified transport. In particular, the upfront cost to purchase and install charging equipment can be daunting, and H.B. 1585 promises to reduce or eliminate these concerns for many future electric vehicle drivers and facility owners. Providing increased access to EV charging in public, at workplaces, commercial locations, and multi-family buildings are all key priorities identified in the Companies' *Electrification of Transportation Strategic Roadmap*. This bill will continue the tremendous progress that the state has made towards a cleaner and more sustainable transportation future.

Accordingly, the Hawaiian Electric Companies support H.B. 1585. Thank you for this opportunity to testify.



TESLA'S TESTIMONY REGARDING HB 1585

**being heard by the House Committees on Energy and Environmental Protection
and Transportation**

on Tuesday, February 5, 2019 at 9:30 a.m.

Aloha Chairs Lowen and Aquino, and Members of the Committee:

Thank you for the opportunity to provide testimony regarding HB 1585, which would establish a rebate program to support the deployment of electric vehicle (EV) charging infrastructure by establishing a tax on imported petroleum. For reasons further detailed below, Tesla strongly supports efforts to expand EV charging infrastructure, recognizing the fundamental role it plays in driving EV adoption, including rebate programs like those proposed by the bill. Tesla does not have any specific comments on the funding mechanism for the proposed rebate program beyond stating that we do support efforts to appropriately reflect the cost of greenhouse gas emissions in the price of goods and services. A tax on petroleum imports to support efforts, like vehicle electrification, to mitigate climate change, is consistent with that idea.

Tesla's mission is to accelerate the world's transition to sustainable energy. The electrification of the transportation sector is a critical part of this to the degree it represents among the most significant sources of greenhouse gas emissions through the combustion of fossil fuels. Nationally, the transportation sector accounts for almost 30% of GHG emissions.¹ By supporting efforts to transition to EVs, Hawaii can leverage its 100% renewable energy goals to greatly advance efforts to address climate change, reduce pollution and improve air quality, and enhance the state's economic and energy security.

Access to charging represents one of the more fundamental challenges impairing demand for electric vehicles. Without easy and convenient access to EV charging, drivers will be less inclined to choose an EV over a conventional vehicle. EV charging currently suffers from the "last mile" problem, or more realistically, the "last fifty feet" problem. Specifically, while the electrical grid is fairly ubiquitous, in order to support EV charging it needs to be expanded to bring the power to where EVs are actually parked. This typically requires incremental investments in infrastructure on the customer side of the meter including electrical panel capacity, conduit and wiring, in addition to, in the case of Level 2 and Level 3 charging, the charging station itself. While for new construction, where EV charging infrastructure can be incorporated into the initial plans, the costs of deploying Level 2 EV charging infrastructure are quite modest, in the case of retrofits to existing buildings, these costs can be non-trivial.² State or utility support can be especially helpful in these instances.

¹ US Environmental Protection Agency; see <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

² See "Plug-in Electric Vehicle Infrastructure Cost Effectiveness Report"; Energy Solutions and Pacific Gas and Electric, November 2016. Available for download at <http://evchargingpros.com/wp-content/uploads/2017/04/City-of-SF-PEV-Infrastructure-Cost-Effectiveness-Report-2016.pdf>



It is worth noting that such support can offer meaningful benefits beyond the direct recipients of the funding and associated charging services. As HECO has detailed in its Electrification of Transportation Strategic Roadmap, by increasing the utilization of its fixed infrastructure, EV adoption can actually help reduce energy costs to all ratepayers.³ This is in addition to the broad, public policy benefits that EV adoption provides in terms of reduced greenhouse gas emissions, improved air quality, etc.

Regarding the bill's proposed incentive structure, Tesla supports the percentage-of-cost framework, capped by a dollar per project amount. This is consistent with the approach we've seen in other jurisdictions and ensures that project developers have some "skin in the game".⁴ It also ensures that incentives provided are commensurate with project costs while ensuring equitable access to funds.

Tesla does seek clarification regarding the eligible costs the incentives proposed in the bill would address. The measure defines "electric vehicle charging system" in a manner that could be interpreted as limiting eligible costs to only the charging station itself. However, in Tesla's experience, the more substantive cost tends to be in the "make-ready" infrastructure, essentially all of the componentry needed to bring sufficient electrical service to the charging station itself. Tesla requests that these elements be part of the cost-basis for determining the level of incentives a given project is eligible to receive.

Recognizing that any program will have a limited budget, Tesla also encourages the program to focus on deployments in multi-unit dwellings (MUDs), workplaces, and other public charging locations utilizing primarily Level 2 charging infrastructure. Regarding the type of charging infrastructure to focus on, given the significant cost differential between Level 2 and Level 3 charging, Level 2 charging tends to be a more cost-effective investment and will go further in supporting EV adoption. And while deploying charging infrastructure in single-family housing is not without costs, it does not face the same challenges as deployments in MUDs, workplaces and other public charging locations. Deployments in these contexts face a number of hurdles, include principal-agent issues (where the benefits of the investment accrue to someone other than the entity that has to make the decision to invest) as well as more practical challenges around the degree of work that is typically required to deploy the infrastructure. To that end, Tesla recommends amending the bill such that eligibility is limited to deployments at workplaces, residential MUDs and other public locations, or, in the alternative, target at least 75% of the funds for the deployment of charging infrastructure at these locations. To be clear, Tesla supports the bill as drafted, but believes focusing eligibility in this manner will enhance the overall efficacy of the proposed program in driving deployments of EV infrastructure that would not otherwise occur.

Tesla appreciates the opportunity to submit this testimony in support of HB 1585 and encourages the Committee to pass this important measure with the amendments discussed above.

³ Electrification of Transportation Strategic Roadmap, pp. 35-36; Available for download at <https://www.hawaiielectric.com/clean-energy-hawaii/electrification-of-transportation>.

⁴ See, for example NV Energy's program. Details available at <https://www.nvenergy.com/cleanenergy/electric-vehicles>.



**Testimony to the House Committee on Energy and Environmental
Protection and the Committee on Transportation
Tuesday, February 5, 2019 at 9:30 A.M.
Conference Room 325, State Capitol**

RE: HOUSE BILL NO. 1585, RELATED TO THE ENVIRONMENT

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

The Chamber would like to provide comments on HB 1585 which proposes to establish an electric vehicle charging system rebate program within the Department of Business, Economic Development, and Tourism that provides rebates to persons who install a new electric vehicle charging system or upgrade an existing electric vehicle charging system. Caps the total value of rebates issued each year at an unspecified sum. Creates, and appropriates moneys out of, the electric vehicle charging station rebate program special fund. Amends the distribution of revenue from the environmental response, energy, and food security tax. Prohibits the use of moneys from the energy security special fund to support the state energy office.

The Chamber is Hawaii's leading statewide business advocacy organization, representing about 2,000+ businesses. Approximately 80% of our members are small businesses with less than 20 employees. As the "Voice of Business" in Hawaii, the organization works on behalf of members and the entire business community to improve the state's economic climate and to foster positive action on issues of common concern.

The purpose of the bill is to create an incentive to build out a more robust electric vehicle infrastructure will make electric vehicles a viable option for more consumers, especially those who may not have a rooftop solar system that allows them to charge their electric vehicles at home at a lower cost.

We would suggest that the incentive be made available to any residential home builder to allow for greater acceptance of electric vehicle charging stations in new residential developments. Incentives usually work better than mandates.

Thank you for the opportunity to testify.



**TESTIMONY TO THE HOUSE COMMITTEES ON ENERGY AND ENVIRONMENTAL
PROTECTION, AND TRANSPORTATION
State Capitol, Conference Room 325
415 South Beretania Street
9:30 AM**

February 5, 2019

RE: HB 1585 - RELATED TO THE ENVIRONMENT

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

My name is Gladys Quinto-Marrone, CEO of the Building Industry Association of Hawaii (BIA-Hawaii). Chartered in 1955, the Building Industry Association of Hawaii is a professional trade organization affiliated with the National Association of Home Builders, representing the building industry and its associates. BIA-Hawaii takes a leadership role in unifying and promoting the interests of the industry to enhance the quality of life for the people of Hawaii. Our members build the communities that people call home.

BIA-Hawaii has the following **comments** on H.B. 1585, which proposes to establish an electric vehicle charging system rebate program within the Department of Business, Economic Development, and Tourism that provides rebates to persons who install a new electric vehicle charging system or upgrade an existing electric vehicle charging system. This bill also caps the total value of rebates issued each year at an unspecified sum, creates, and appropriates moneys out of, the electric vehicle charging station rebate program special fund, amends the distribution of revenue from the environmental response, energy, and food security tax, and prohibits the use of moneys from the energy security special fund to support the state energy office.

The purpose of the bill is to create an incentive to build a more robust electric vehicle (EV) infrastructure will make EVs a viable option for more consumers, especially those who may not have a photovoltaic system that allows them to charge their EVs at home.

We would suggest that the incentive be made available to any residential home builder to allow for greater acceptance of EV charging stations in new residential developments. Incentives usually work better than mandates.

We appreciate the opportunity provide comments on H.B. 1585.



SanHi

GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 4, 2019

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

Representative Henry Aquino
Chair, Committee on Transportation

Submitted Via Capitol Website

FROM: Tiffany Yajima

RE: **H.B. 1585 – Relating to the Environment**
Hearing Date: Tuesday, February 5, 2019 at 9:30 a.m.
Conference Room: 325

Dear Chair Lowen, Chair Aquino, and Members of the Committee on Energy and Environmental Protection and Committee on Transportation:

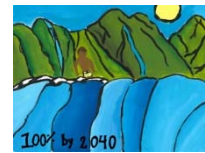
We submit this testimony on behalf of the Alliance of Automobile Manufacturers (“Alliance”).

The Alliance is a trade association of twelve car and light truck manufacturers including BMW Group, Fiat Chrysler Automobiles, Ford Motor Company, General Motors Company, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, Volkswagen Group of North America, and Volvo Car USA.

The Alliance supports H.B. 1585 with respect to the establishment of a rebate program that incentivizes the installation or upgrade of electric vehicle charging systems. Hawaii has one of the highest rates of adoption of passenger electric vehicles in the nation and currently there are over 8,330 passenger electric vehicles registered in the state.

Although the number of electric vehicles registrations in the state continues to increase, a larger network of electric vehicle charging infrastructure is essential to greater adoption of electric vehicles. Incentives that facilitate the build out of electric vehicle charging stations will help to make electric vehicles a more viable option for consumers and would encourage consumer uptake of passenger electric vehicles in Hawaii.

Thank you for the opportunity to submit testimony on this measure.



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

February 5, 2019, 9:30 A.M.

Room 325

(Testimony is 2 pages long)

TESTIMONY IN STRONG SUPPORT OF HB 1585

Aloha Chairs Lowen and Aquino and members of the committees:

Blue Planet Foundation strongly supports HB 1585, establishing an electric vehicle (EV) charging system rebate program. This policy will help to address the critical gap in our transition to a low-cost, low-carbon future: the lack of charging for zero emission EVs. *We offer a suggested amendment at the end of this testimony.*

Electric vehicles are the fastest growing segment of new cars in Hawaii. In 2018, EV registrations grew 25 percent, while registrations of gasoline-powered vehicles grew only 0.8 percent.¹ We expect over 10,000 EVs registered in Hawaii by the end of the year—a number that is expected to grow exponentially as new EV models with longer ranges and lower prices hit the market.

Electric vehicles will play an integral role in Hawaii's clean energy future. While EVs that use the existing electricity grid to charge still use mostly fossil fuel (except on Hawaii Island), they use that fuel 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 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.

Over one million gasoline-powered vehicles are on Hawaii's roads—and from them comes nearly five million metric tons of climate-changing carbon pollution. What's worse, while Hawaii has made good progress in reducing its carbon emissions from the electricity sector, emissions from ground transportation have been increasing in recent years.

¹ DBEDT Monthly Energy Trends, January 2019 (<http://dbedt.hawaii.gov/economic/energy-trends-2/>).

House Bill 1585 helps to overcome a key barrier to EV adoption: the lack of adequate EV charging infrastructure.

The International Energy Agency has found that “the availability of chargers emerged as one of the key factors for contributing to the market penetration of EVs.” Unlike gasoline car owners, charging behavior for EV owners indicates that more than 80% of EV drivers charge their cars at home or at work.² In addition, a large share of the Hawaii population lives in high density, multi-unit residential buildings. The vast majority of parking facilities currently lack EV chargers.

House Bill 1585 creates a rebate program—funded by the existing fossil fuel tax—to incentivize the installation of EV charging stations. Blue Planet Foundation supports the use of the fossil fuel tax for this purpose. It makes sense to tap the source of our problem—imported fossil fuels—to help fund solutions, such as EV charging infrastructure.

SUGGESTED AMENDMENT

While Blue Planet Foundation strongly supports the creation of an EV charger rebate program, we want to ensure that limited public resources are used to benefit the largest number of people. We believe the biggest need for EV charging is in workplaces and in multi-unit residential buildings. We would support amending HB 1585 to prioritize these applications, or establish a varying level of incentive to focus the rebates for EV charging at these locations.

Thank you for the opportunity to testify.

² <https://www.iea.org/publications/freepublications/publication/GlobalEVO Outlook2017.pdf>



P.O.Box 38-4276. WAIKOLOA, HI. 96738
MAIN: (808) 883-9411 CELL: 989-1637
EMAIL: hydrogen@hawaii.rr.com

LATE

TESTIMONY OF JOHN CROUCH ON BEHALF OF ERS,
A HAWAII RENEWABLE ENERGY COMPANY BEFORE THE
HOUSE COMMITTEE ON EEP/TRN

In SUPPORT of HB 1585 RELATING TO THE ENVIRONMENT
Tuesday, February 5, 2019 9:30 AM Room 325

Rep. Nicole E. Lowen, Chair
Rep. Tina Wildberger, Vice Chair
Rep. Henry J.C. Aquino, Chair
Rep. Troy N. Hashimoto, Vice Chair

I have been involved in the design and installation of renewable energy projects in Hawaii since the first large unit at Mauna Lani Bay Hotel and Bungalows in 1998 and the first large scale PV project in Hawaii, 2008, on Lana'i composed of 1.5MW of PV to supply 30% of the daytime load.

It is good business for the State to help with the capital costs of supporting the development of electrical vehicle charging infrastructure.

The purchase and use of electrical vehicles is expanding faster than the ability to support the charging process. This technology, which is important to meet Hawaii energy independent goals, needs public assistance to help match the electrical infrastructure needed to meet the exploding use of electrical vehicles.

HB 1585 – Is important as a tool to help us reach our goals of energy security sooner than later.

Thank you for allowing me to testify by email.

John Crouch



Email: communications@ulupono.com

HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION AND
TRANSPORTATION

Tuesday, February 5, 2019 — 9:30 a.m. — Room 325

Ulupono Initiative Strongly Supports HB 1585 with Amendments, Relating to the Environment

Dear Chair Lowen, Vice Chair Wildberger, Chair Aquino, Vice Chair Hashimoto, and Members of the Committees:

My name is Murray Clay and I am the Managing Partner of Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable clean renewable energy; and better manage waste and fresh water resources.

Ulupono strongly supports HB 1585 with Amendments, which establishes an electric vehicle charging system rebate program, because it will increase the use of more efficient, cleaner forms of transportation and help to reduce Hawai'i's dependence on imported fossil fuels.

Electric vehicles (EVs) are an important avenue to address Hawai'i's pressing climate issues and align with the State's energy and environmental goals. While Hawai'i's electric power sector continues to make progress toward its 100 percent renewable portfolio standard (RPS) mandate, our transportation sector has received little attention.

EVs currently offer an effective option to progress clean renewable ground transportation and immediate benefits to Hawai'i:

- EVs can alleviate Hawai'i's high cost of living
- EVs provide immediate impact to reduce our dependence on fossil fuels and decrease greenhouse gas (GHG) emissions
- EVs are prime for market acceleration
- Hawai'i should be doing more to promote EVs and EV infrastructure

EVs Can Alleviate Hawai'i's High Cost of Living

EVs are an increasingly affordable option for all. For example, the 2019 Nissan Leaf's starting MSRP is \$29,990. After the Federal tax credit is considered, the purchase price is \$22,490, which is less than the average 2019 Toyota Camry and 2019 Honda Civic (the two

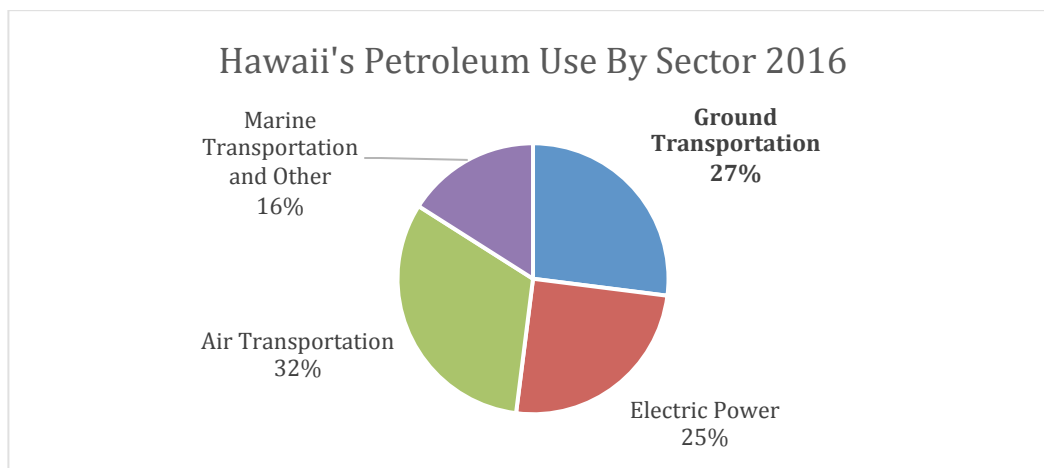
Investing in a Sustainable Hawai'i

best-selling sedans in the country).

EVs are also cheaper to operate and maintain because they have less moving parts and are more fuel efficient. According to a recent study by the Union of Concerned Scientists, Honolulu drivers could save more than \$500 per year by switching to an EV.

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.



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.

Furthermore, EVs can 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 Prime For Market Acceleration

From a market perspective, EV adoption in Hawai‘i has shown impressive growth, and the state ranks second in the nation behind California in the number of EVs per capita. As of November 2018, there were over 8,000 passenger EVs registered in Hawai‘i, a 24 percent growth from the previous year. This progress is despite not having strong supporting policies as seen in other states, municipalities and countries.

Based on global and local trends, these adoption numbers are expected to increase

exponentially by 2030. Major automobile manufacturers, from Volvo to Volkswagen, have announced plans to offer electric versions of all their vehicle models. Even Ford has announced plans for an all-electric F-150 pickup truck, the #1 selling vehicle in the country. Policies across the globe are further supporting this transition; in fact, Britain and France have committed to end sales of gas-powered vehicles by 2040.

However, we simply cannot wait. A new report by the United Nation Intergovernmental Panel on Climate Change warns global human-caused emissions of carbon dioxide need to fall 45 percent by 2030, and it will “require rapid, far-reaching and unprecedented changes in all aspects of society.” We must be proactive and act now with strong policy.

Hawai‘i Should Be Doing More

EVs are the future, 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 be prepared with the necessary infrastructure.

Public EV charging stations are a vital component of the EV system. They provide access to charging for drivers who may not be able to charge at home, such as residents who live in multifamily dwellings, and alleviate range anxiety for all EV drivers, a top cited barrier to purchasing EVs. Similar to the benefits that community solar offers to renters and apartment residents, public chargers open up the opportunity and feasibility of owning an EV to more people, increasing equity and access.

Additionally, public charging stations can promote the adoption of EVs in the tourism industry and rental car fleets. According to a survey we commissioned in June 2018, 56 percent of visitors said they probably would have rented an EV if the option were available to them. Of the respondents that indicated they probably would not rent an EV, the top reason for not wanting to rent one was concerns about driving range and finding a charging station. Increasing the number and visibility of public charging stations should encourage rental car companies to add EV options.

Hawai‘i’s EV charging infrastructure has not kept up with current demand and is ill-prepared for future projected EV adoption levels. In October 2015, there were 8 EVs for every public charging station in Hawai‘i, and in June 2018, there were 13 EVs per charger. This worsening ratio implies it is becoming more difficult for EV owners to find public charging stations and signals inadequate infrastructure support for EVs, which impedes EV adoption and our transition away from fossil fuel vehicles.

Based on our experience as investors of multiple charging station companies, it is currently financially challenging for private businesses to own and operate charging stations. Another challenge for private entities is supplying charging stations in underserved areas, which are particularly unprofitable due to underutilization but are needed to provide broad EV coverage. An EV charging station rebate program would reduce the financial burden and promote the proliferation of EV charging stations, helping ensure an



encompassing charging network that serves low-income and multi-unit dwellings residents across the island.

More than 25 other states and municipalities, including Delaware, Maryland and Pennsylvania, recognize the importance of EV infrastructure and already offer generous EV charging station incentive programs. To build momentum, UluPono recently partnered with Hawai'i Energy to fund and launch a pilot EV charging station rebate program. The limited pilot, which ends in June 2019, aims to promote the installation of Level 2 charging stations at workplaces and multi-unit dwellings and to demonstrate the potential of a larger, statewide incentive program.

If the State of Hawai'i is serious about the sustainability and resiliency of our communities, it should encourage EVs and EV infrastructure.

Recommended Amendments

UluPono strongly supports the intent and concept of this bill and offers the following amendments for the committees' consideration:

1. Vary the rebate percentage and cap depending on the level of charging

	<u>Level 2 – Single Port</u>	<u>Level 2 – 2+ Ports</u>	<u>Level 3</u>
New Charger: Percent of Cost	30%	50%	70%
New Charger: Rebate Cap	\$2,000	\$6,000	\$35,000
Upgrade Charger: Percent of Cost		50%	70%
Upgrade Charger: Rebate Cap		\$3,000	\$28,000

2. Limit the total rebate funding to \$3 million per year. Given this relatively modest amount of funding, more than 350 new/upgraded stations could be added. This increase would represent 61 percent growth from the current number of charging stations in Hawai'i.

3. Potentially assign Hawai'i Energy to administer the rebate program, as it already manages rebate programs that promote energy efficiency for households and businesses, if the Department of Business, Economic Development, and Tourism is not willing or capable of managing the program

As Hawai'i's energy issues become more complex and challenging, we appreciate these committees' efforts to look at policies that support clean ground transportation. Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner



**TESTIMONY OF TINA YAMAKI
PRESIDENT
RETAIL MERCHANTS OF HAWAII
February 5, 2019**

Re: HB 1585 Relating to the Environment

Good morning Chairpersons Lowen and Aquino and members of the House Committee on Energy & Environmental Protection and the Committee on Transportation. I am Tina Yamaki, President of the Retail Merchants of Hawaii and I appreciate this opportunity to testify.

The Retail Merchants of Hawaii (RMH) is a statewide not-for-profit trade organization committed to supporting the retail industry and business in general in Hawaii. The retail industry is one of the largest employers in the state, employing 25% of the labor force.

We are in SUPPORT of HB 1585 Relating to the Environment. This measure establishes an electric vehicle charging system rebate program.

We strongly believe that this bill is a step in the right direction instead of Government mandates that force all business' like retailers to install costly EV charging stations that in turn only drives up the cost of doing business but also the cost of living in Hawaii. Businesses respond to the wants of the majority of customers that patronize their establishments all the while operating on a very thin profit margin. This would include installing EV charging stations.

Electric Vehicles charging stations come at a cost to businesses for the installation and maintenance and in some cases electricity. Each existing building and facility varies on where stations can be installed and it is often determined by the accessibility to electricity as many existing infrastructures' are not wired to be plug in ready like parking lots and older condominiums. One of the major cost factors is having to dig up the asphalt to pull in the electricity from across the mall or to tear into the structure to install the electrical infrastructure. We must also mention that the charging stations themselves are very expensive. This can be very costly and a rebate would help to offset some of the costs and even be an incentive for businesses to install more charging stations.

In addition, this may also be an incentive for people to begin new business ventures that creates fast charging station locations – like a current “gas” station - and incentivize more residential buildings to install the stations so that people are able to charge their vehicles at home.

Mahalo for this opportunity to testify.

HB-1585

Submitted on: 2/1/2019 6:51:09 PM

Testimony for EEP on 2/5/2019 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Karen Winslow	Individual	Support	No

Comments:

HB-1585

Submitted on: 2/3/2019 12:20:43 PM

Testimony for EEP on 2/5/2019 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Bernard M Moret	Individual	Support	Yes

Comments:

Dear representatives,

My wife, Carol Fryer, and I, both residents and registered voters on the Big Island of Hawaii, would like to register our strong support for House Bill 1585.

Electric transportation is a great fit for the state -- it is much more efficient, generally safer, and of course causes much less pollution, than internal combustion engines; in addition, it is nearly silent, a major advantage in large cities like Honolulu and a significant enhancement to our natural landscape.

Transition to electric transportation has started, but state support can make it happen much faster. In particular, the establishment of a network of charging stations will make it possible for car rental companies to replace their fleet of polluting vehicles with electric vehicles and will encourage residents to consider an electric vehicle for their next vehicle purchase.

A sufficiently dense network of charging stations carries a significant upfront cost and so far progress has been fairly slow, at least on the Big Island. HB 1585 can change that and get us all sooner to quiet, efficient, safe, and non-polluting transportation, be it private cars, public transportation, or commercial hauling.

Respectfully submitted.

Bernard Moret

HB-1585

Submitted on: 2/3/2019 9:27:53 PM

Testimony for EEP on 2/5/2019 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanette Vinton	Individual	Support	No

Comments:

Dear Commitee Members,

I am writing in support of HB1585 regarding rebates for the installation of EV charging stations. I have been an EV owner since 2013 and am happy to see the significant growth in the number of EVs over the past few years. However, it seems that the number of EV chargers available has not grown at the same pace.

I believe that having a proper charging infrastructure to support EVs whether they be at home, work, or public places is key to continued EV adoption and to support the State's Clean Transportation goals. Rebates for EV charger installation will provide needed incentives to property owners.

Sincerely,

Nanette Vinton

HB-1585

Submitted on: 2/3/2019 6:59:26 PM

Testimony for EEP on 2/5/2019 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Chris Wells	Individual	Oppose	No

Comments:

LATE

HB-1585

Submitted on: 2/5/2019 7:36:20 AM

Testimony for EEP on 2/5/2019 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	O`ahu County Committee on Legislative Priorities of the Democratic Party of Hawai`i	Support	No

Comments:

TAX FOUNDATION OF HAWAII

126 Queen Street, Suite 304

Honolulu, Hawaii 96813 Tel. 536-4587

LATE

SUBJECT: FUEL, Earmarks Barrel Tax for EV Charging System Rebate Program

BILL NUMBER: HB 1585

INTRODUCED BY: LOWEN, HOLT, LUKE, QUINLAN, SAIKI, TODD, WILDBERGER, WOODSON

EXECUTIVE SUMMARY: Establishes an electric vehicle charging system rebate program within DBEDT that provides rebates to persons who install a new electric vehicle charging system or upgrade an existing electric vehicle charging system. Caps the total value of rebates issued each year at an unspecified sum. Creates the electric vehicle charging station rebate program special fund, and feeds it with yet another earmark on the barrel tax.

SYNOPSIS: Adds a new section to chapter 201, HRS, to establish the electric vehicle charging system rebate program and special fund. The amount of the rebate is unspecified.

Amends section 201-12.8, HRS, to prohibit the use of moneys from the energy security special fund to support the state energy office.

Amends section 243-3.5, HRS, to change the earmarks on the environmental response, energy, and food security tax (“barrel tax”) such that the 15 cents per barrel to the energy security special fund is changed to an unspecified amount, and to add an additional earmark of an unspecified amount to the electric vehicle charging system rebate program special fund.

EFFECTIVE DATE: July 1, 2019.

STAFF COMMENTS: Act 300, SLH 1993, enacted an environmental response tax of 5 cents per barrel on petroleum products sold by a distributor to any retail dealer or end user. The collections of the tax were deposited into the environmental response revolving fund until such time the balance in the fund reached \$7 million at which time the imposition of tax was suspended until the balance in the fund declined.

Act 73, SLH 2010, increased the amount of the tax to \$1.05 per barrel and provided that 5 cents of the tax shall be deposited into a newly established environmental response revolving fund; 15 cents shall be deposited into a newly established energy security special fund, 10 cents shall be deposited into a newly established energy systems development special fund; 15 cents shall be deposited into the newly established agricultural development and food security special fund; and the residual of 60 cents shall be deposited into the general fund between 7/1/10 and 6/30/15. Act 107, SLH 2014, extended the sunset date of the \$1.05 environmental response, energy, and food security tax from 6/30/15 to 6/30/30. Act 185, SLH 2015, extended the tax to fossil fuels other than petroleum products as well, based on the BTU equivalent.

The environmental response tax was initially adopted to set up a reserve should an oil spill occur on the ocean waters that would affect Hawaii’s shoreline. The nexus was between the oil

importers and the possibility that a spill might occur as the oil product was being imported into the state. Now that the fund has become a cash cow, lawmakers have placed other responsibilities on the fund, including environmental protection, food security, and natural resource protection programs, energy conservation and alternative energy development, air quality, global warming, clean water, polluted runoff, solid and hazardous waste, drinking water, and underground storage tanks, including support for the underground storage tank program of the department of health.

The basic problem with the barrel tax is that it lacks transparency, and because the funds are earmarked they largely avoid scrutiny by either lawmakers or the public. Rather than perpetuate the problems of the barrel tax, lawmakers should consider repealing it and funding all programs that are funded out of the environmental response fund through appropriations against the general fund. At least program managers would then have to justify their need for these funds. If general funds are insufficient to underwrite all the essential programs and programs such as those funded through the barrel tax, then lawmakers need to justify any increase in taxes which underwrite the general fund or lawmakers will be forced to set priorities for those precious general funds. Currently, lawmakers can sidestep that difficult task by creating these hidden taxes and earmarked funds like the barrel tax. By continuing to special fund these programs, it makes a statement that such programs are not a high priority for state government. This sort of proliferation of public programs needs to be checked as it appears to be growing out of hand and at the expense of the taxpayer.

Digested 2/4/2019



John Uekawa, President
Dave Roll, Executive Director



LATE

HADA testimony in **Strong Support** of
HB 1585—Relating to the Environment
Submitted to the House Committee on Energy and Environmental Protection
and the House Committee on Transportation
for the public hearing 9:30 a.m. Tuesday, February 5, 2019 i
in conference room 325, Hawaii State Capitol

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

Hawaii's new car dealers support the increase in the barrel tax. Nine years ago, we also supported an increase when such was introduced. Much of that funding, however, was diverted to the State's general fund. Dealers applaud HB1585's assignment of future barrel tax funds received to match the original intended purpose of supporting the transition to renewable fuels.

The amount of increase in the barrel tax should likely be crafted to match the total rebate amount settled upon.

It should be noted that the reason aviation fuel is carved out from the Barrel Tax is because the federal government prohibits local governments from taxing fuel at the barrel unless a nexus can be established showing use for support of local airports.

The idea of establishing a nexus connecting the projected Barrel Tax to match the rebate amount needed each year is a good one.

Right now, future EV adoption estimates range from HADA's estimates of 23% of the total vehicles on the Hawaii roadways in 2045—which matches several auto manufacturer estimates of electric vehicle adoption rates—to HECO's estimates of 55% EV adoption by 2045.... up to the aspirational goal of 100% adoption by 2045—a goal announced by Hawaii's four county mayors in their 2017 press conference.

With this bill's proposal to carve 5 cents per barrel for the environmental response revolving fund, and a yet-to-be-determined ___cents per barrel for the energy security special fund, and 10 cents per barrel for the energy systems development special fund, and a yet-to-be-determined ___ cents per barrel for the new electric vehicle charging system rebate program special fund, it will be important to have an accurate estimate of anticipated EV customer purchases, year by year, along with an accurate estimate of the total amount needed for rebates for EV charging station installation, in order to establish the amount of the barrel tax needed. There still are a lot of unknowns.

An additional \$1 per barrel in barrel tax would seem adequate to cover rebate funding needs for many years into the future. This amounts to a 2.4 cent increase in cost per gallon of a 42-gallon barrel.

HADA dealers suggest that funds collected that are in excess of EV rebate needs, in the initial 10 years, be transferred to state's roadway maintenance fund, to account for the lower gasoline tax anticipated for that road maintenance fund because of the continuing transition to battery electric vehicles.

Currently, HADA estimates an EV uptake of 40,000 vehicles by 2030. HADA anticipates that the additional \$1 per barrel proposed would be adequate to cover rebates averaging \$2,500 per EV charger, even accounting for a possible total 10,000 vehicle increase in adoption rate through 2030 created by the proposed charger rebate program. The HADA-proposed use of \$3 million per year for a coordinated tv "EV benefits" campaign, using monies generated through the public benefit fund collection on electric bills, would also be needed to accelerate the transition above projected numbers.

The members of the Hawaii Automobile Dealers Association thank the sponsors and supporters of HB1585 and respectfully ask that the committees give the measure favorable consideration and pass it forward.

Respectfully submitted.

David Rolf
The Hawaii Automobile Dealers Association
1100 Alakea St. Suite 2601, Honolulu Hawaii 96813
Email: drolf@hawaiiidealer.com
Website: www.hawaiiautodealer.com