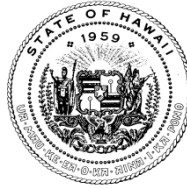


DAVID Y. IGE
GOVERNOR



LATE

Testimony by:
JADE T. BUTAY
INTERIM DIRECTOR

Deputy Directors
ROY CATALANI
ROSS M. HIGASHI
EDWIN H. SNIFFEN
DARRELL T. YOUNG

IN REPLY REFER TO:

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

February 13, 2018
8:30 a.m.
State Capitol, Room 325

H.B. 2274
RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

House Committee on Energy and Environmental Protection

The Department of Transportation (DOT) **supports** H.B. 2274 with concerns, which expands the State's existing electric vehicle charging requirements to include parking lots for multi-unit buildings and workplaces.

Utilizing manmade electrical power sources to provide the electricity to charge the electric vehicles circumvents the intention of the clean energy program. Charging infrastructures should be generating its electricity from a renewable energy source.

Additionally, the responsibility of providing compliance oversight should not rest with the Director of Transportation.

Thank you for the opportunity to provide testimony.

HB-2274

Submitted on: 2/11/2018 8:27:22 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Melodie Aduja	OCC Legislative Priorities	Support	No

Comments:

**PRESENTATION OF THE
OAHU COUNTY COMMITTEE ON LEGISLATIVE PRIORITIES
DEMOCRATIC PARTY OF HAWAII
TO THE COMMITTEE ON ENERGY AND ENVIRONMENTAL
PROTECTION**

THE HOUSE OF REPRESENTATIVES

TWENTY-NINTH LEGISLATURE

REGULAR SESSION OF 2018

Tuesday, February 13, 2018

8:30 a.m.

Hawaii State Capitol, Conference Room 325

**RE: Testimony in Support of HB 2274, RELATING TO ELECTRIC
VEHICLE CHARGING INFRASTRUCTURE**

To the Honorable Chris Lee, Chair; the Honorable Nicole E. Lowen, Vice-Chair and the Members of the Committee on Energy and Environmental Protection:

Good morning, my name is Melodie Aduja. I serve as Chair of the Oahu County Committee ("OCC") Legislative Priorities Committee of the Democratic Party of Hawaii. Thank you for the opportunity to provide written testimony on House Bill No.2274 relating to parking facilities and charging infrastructures for electric vehicles.

The OCC Legislative Priorities Committee is in favor of House Bill No. 2274 and supports its passage as it incentivizes greater use of electric vehicles by providing parking facilities and charging infrastructures for such vehicles.

House Bill No.2274 is in accord with the Platform of the Democratic Party of Hawai'i ("DPH"), 2016, as it (1) expands the State's existing electric vehicle charging requirements to include parking lots for multi-unit buildings and workplaces (2) creates a ratio to calculate the total number of electric vehicle parking stalls a parking facility with more than 200 stalls must have beginning 7/1/2021, and (3) allows the director of transportation to fine properties, not in compliance with the electric vehicle parking requirements.

The DPH Platform states that the "Democratic Party of Hawai'i believes that the preservation and restoration of our natural environment are essential. We support a sustainable society that utilizes the Earth in such a way that future generations will benefit from the practices of our generation. We support the restoration, preservation, and protection of our native ecosystems on each island. We believe in integrated approaches, practices, and support public policies that create and maintain a sustainable way of life in Hawai'i.

We believe in supporting best management practices in sustaining our environment and in increased citizen involvement. We support programs that encourage sustainable clean, efficient, creative and environmentally-friendly modes of transportation recycling and waste reduction.

The conservation, preservation, and restoration of Hawai'i's natural resources are connected to the health and welfare of our people; therefore, we support the conservation and protection of our natural environment, which includes reducing our carbon footprint for the benefit of current and future generations. (Platform of the DPH, P. 8, Lines 407- 420 (2016)).

We support energy independence, self-sufficiency, affordability and reliability for Hawai'i through the development of renewable alternative energy sources. Specifically, we need to support policies that foster the development of energy production methods that de-emphasizes carbon-based fuels and promote renewable sources such as wind, solar, wave, geothermal and Ocean Thermal Energy Conversion (OTEC). (Platform of the DPH, P. 9, Lines 452-456 (2016)).

We endorse efforts to promote less reliance on the automobile by employing private and public use of alternative modes of travel. We encourage efforts to provide better vehicle and pedestrian safety. In particular, we support initiatives that will provide our state with more fuel-efficient vehicles, affordable mass transit, and well-identified bike lanes. (Platform of the DPH, P. 9, Lines 473-476 (2016)).

Given that House Bill No.2274 expands parking facilities and charging infrastructures for electric vehicles, it is the position of the OCC Legislative Priorities Committee to support this measure.

Thank you very much for your kind consideration.

Sincerely yours,

/s/ Melodie Aduja

Melodie Aduja, Chair, OCC Legislative Priorities Committee

Email: legislativepriorities@gmail.com, Tel.: (808) 258-8889



Testimony for
House Committee on Energy & Environmental Protection
Tuesday, February 13, 2018, 8:30 a.m. Room 325

Representative Chris Lee, Chair
Representative Nicole E. Lowen Chair

HB 2274 Relating to Electric Vehicle Charging Infrastructure

Dear Chair Lee and Members of the Committee:

This testimony is in **SUPPORT** of HB 2274 to expand the State's requirement for electric vehicle charging stations to include multi-unit buildings and workplaces, beginning July 1, 2021.

I am Lynn McCrory, Senior Vice President of Government Affairs for Pulama Lanai. Pulama Lanai is the entity that was set up by Larry Ellison to work with the community and government as we move the island of Lanai toward sustainability.

Pulama Lānaʻi has in its vehicle fleet over 100 electric vehicles for use on the island of Lānaʻi. We have charging stations at multiple facilities, and are experiencing the positive difference that electric vehicles have on the environment. While Lānaʻi has some of the higher rates in our State for both gasoline and electricity, there is a savings with electricity and reduced maintenance costs with the electric vehicles.

The placement of charging stations in more facilities will encourage the purchase of electric vehicles. The exemption language should cover the situations whereby the required installation is detrimental to the existence of the facility, and they can opt out.

If we want our environment to not be dependent on foreign fuels, we need to provide the infrastructure that allows as many people as possible to easily fuel their vehicles. This is one of the more important components of having a sustainable Hawaiʻi.

We humbly ask that you SUPPORT HB 2274. Mahalo!

Me ke aloha pumehana
With warm aloha,

Lynn P. McCrory
Senior Vice President of Government Affairs



P.O. Box 976
Honolulu, Hawaii 96808

February 10, 2017

Honorable Chris Lee
Honorable Nicole E. Lowen
Committee on Environmental Protection
415 South Beretania Street
Honolulu, Hawaii 96813

Re: HB 2274 OPPOSE IN ITS CURRENT FORM

Dear Chair Lee, Vice-Chair Lowen and Committee Members:

This testimony is submitted on behalf of the Community Associations Institute ("CAI"). CAI supports the goal of achieving energy independence. CAI opposes HB 1873, *in its current form*, however, for reasons stated herein.

For one thing, such a mandate was the subject of the December 2015 Department of Business, Economic Development and Tourism Report to the Hawaii State Legislature (Act 164 Working Group). The Working Group rejected such a mandate.

The Working Group finds that each request to install an EV charging system within an existing building is unique and is often associated with complicated issues and challenges that require flexibility in addressing installation solutions.

The Working Group understands that there is no single solution that addresses the myriad of financial, structural, or organizational concerns relating to the installation of EV charging systems at existing MUDs. The Working Group further recognizes that due to the unique nature of each EV charging system's installation process, any installation request should be met with flexibility and an understanding of the complexities of installation challenges.

Report at 16.

Honorable Chris Lee
Honorable Nicole E. Lowen
February 10, 2018
Page 2 of 3

It is not evident on what basis the Committee would reject the recommendations of the Working Group. The Working Group was broadly based, for example, reflecting a range of viewpoints and expertise.

The members of the Working Group were: Mark Glick, Chair, representing the Director of Business, Economic Development, and Tourism, Hawaii State Energy Office; Catherine P. Awakuni Colón, Director of Commerce and Consumer Affairs; Sherri Sakamoto, representing the Division of Consumer Advocacy; The Honorable Angus L. K. McKelvey, Chair of the Committee on Consumer Protection and Commerce of the House of Representatives; The Honorable Rosalyn H. Baker, Chair of the Committee on Commerce, Consumer Protection and Health of the Senate; The Honorable Chris Lee, Chair of the Committee on Energy and Environmental Protection of the House of Representatives; The Honorable Lorraine R. Inouye, Chair of the Committee on Transportation and Energy of the Senate; Na Lan and Phil Nerney, representing the Community Associations Institute; Shem Lawlor and Todd Ritter, representing Hawaii EV Partnership; McKibbin Mist, representing the Building Industry Association of Hawaii; and Michael Colón, representing the Hawaiian Electric Companies.

HB 2274 does not reflect the "flexibility" that the Working Group found to be required. Rather, HB 2274 is unreasonably prescriptive, and in a manner that fails to account for the physical, legal and economic realities of community associations.

The first and fundamental thing to recognize is that all of the expenses of a community association are paid entirely by the members of the non-profit association. HB 2274, therefore, implicates substantial consumer protection issues.

As relates to community associations, HB 2274 does not impose a cost of doing business. Rather, HB 2274 imposes a burdensome cost of maintaining a home.

The Committee should take the utterly and entirely non-commercial nature of community associations into account. Many consumers struggle to pay their bills, and the implications of governmental impositions that increase common expenses on consumers deserve careful consideration.

Honorable Chris Lee
Honorable Nicole E. Lowen
February 10, 2018
Page 3 of 3

The Working Group recognized that: "each request to install an EV charging system within an existing building is unique and is often associated with complicated issues and challenges". Stated more plainly, many existing buildings simply lack the electrical and/or space capacity to accommodate the upgrades necessary to enable implementation of the proposed mandate.

Other problems include the prospect that there may be no legally *available* path between a power source and a parking stall. There may be no available location for a charging system at all. Owners have vested rights in deeded property that cannot be ignored. In some cases, HB 2274 might well raise issues about eminent domain and/or taking without compensation.

HB 2274 also fails to take existing law into account. Hawaii Revised Statutes §196-7.5 already details the circumstances under which an owner can place an electric vehicle charging system on property encumbered by restrictive covenants.

Finally, it is no answer to say that "The director of transportation may exempt a parking facility from some or all of the requirements of this section[.]" Nothing is provided to guide the director in the exercise of discretionary authority and it is unclear that the director of transportation has special expertise in issues of housing or association governance. In all events, the \$100,000 threshold for the exercise of discretion is inappropriately high.

Community Associations Institute, by

Philip Nerney

For its Legislative Action Committee

HB-2274

Submitted on: 2/10/2018 10:09:40 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Erica Scott	Cuddle Party	Support	No

Comments:

HB-2274

Submitted on: 2/11/2018 8:46:03 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Joan Gannon	West Hawaii CHC	Support	No

Comments:

HB-2274

Submitted on: 2/11/2018 8:31:36 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc. - www.WeAreOne.cc - WAO	Support	No

Comments:

www.WeAreOne.cc



To: The House Committee on Energy & Environmental Protection
From: Brodie Lockard, 350Hawaii.org, 808-262-1285
Date: Tuesday, February 13, 2018

In strong support of HB 2274

Dear Chair Lee, Vice Chair Lowen and Committee members,

I am the founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org strongly supports HB 2274.

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

As the number of (zero-emissions vehicles (ZEVs) inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by helping to make parking and charging ZEVs a non-issue.

Please support HB 2274. It will help pave the way for our clean energy goals.

Thank you for the opportunity to testify.

[1] http://files.hawaii.gov/dbedt/economic/data_reports/energy-trends/Energy_Trend.pdf

[2] <https://www.eia.gov/state/analysis.php?sid=HI>

Brodie Lockard
350Hawaii.org



Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, February 13, 2018 — 8:30 a.m. — Room 325

Ulupono Initiative Supports the Intent of HB 2274, Relating to Electric Vehicle Charging Infrastructure

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

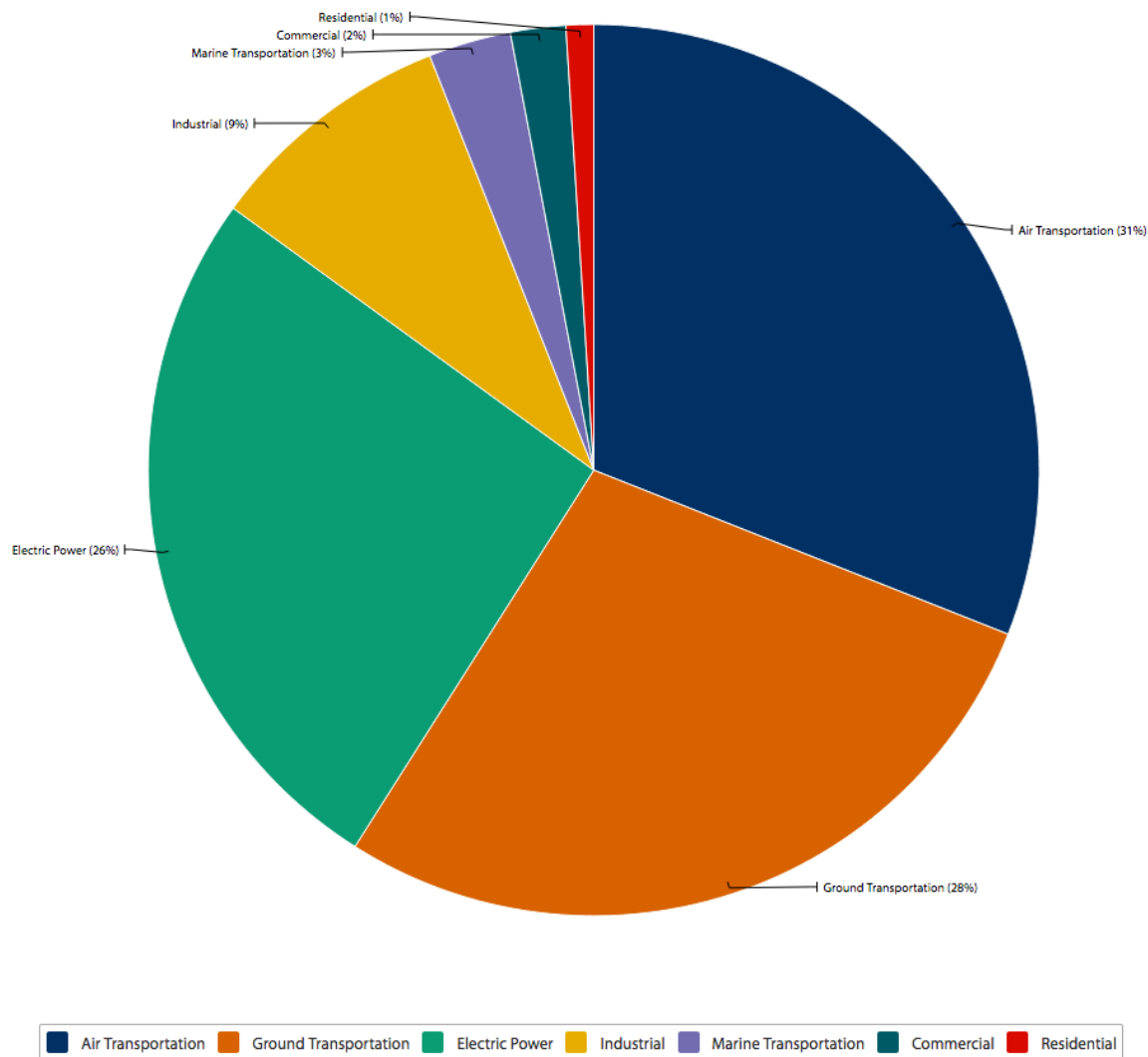
My name is Murray Clay and I am Managing Partner of the Ulupono Initiative, a Hawai'i-based impact investment firm that strives to improve the quality of life for the people of Hawai'i by working toward solutions that create more locally produced food; increase affordable, clean, renewable energy; and better management of waste and fresh water. Ulupono believes that self-sufficiency is essential to our future prosperity and will help shape a future where economic progress and mission-focused impact can work hand in hand.

Ulupono supports the intent of HB 2274, which expands the State's existing electric vehicle charging requirements for parking lots in multi-unit buildings and workplaces and creates a point system for compliance.

Ulupono is supportive of a parking requirement that recognizes that faster charging stations provide better support to EV drivers and should therefore obtain more credit towards compliance than with the existing parking requirement law.

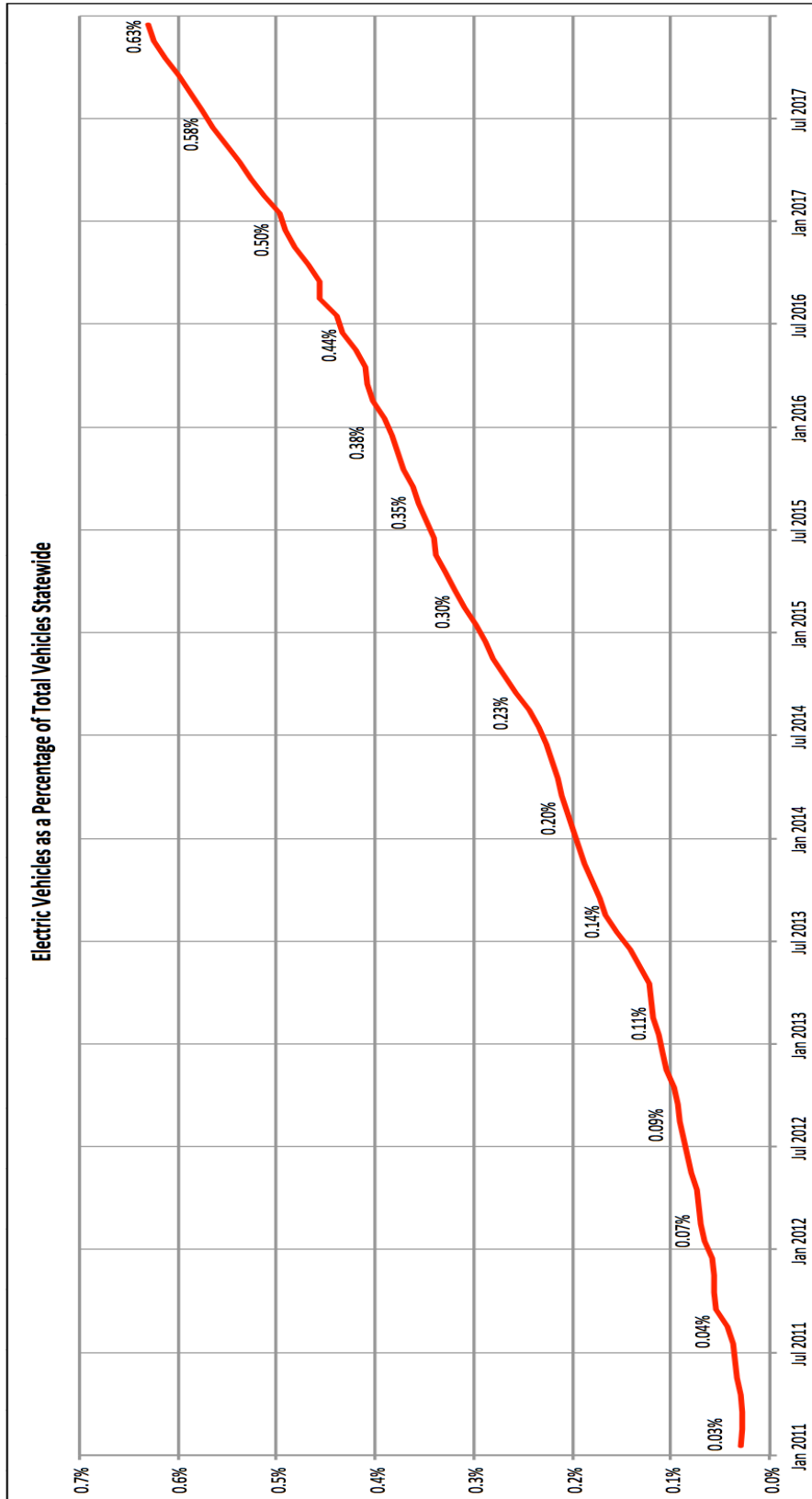
In Hawai'i, while ~25 percent of electricity generation is renewable energy, less than 1 percent of energy use in transportation is renewable. Meanwhile, the transportation sector requires more energy than the electricity sector. Furthermore, about 28 percent of the state's primary energy usage is due to ground transportation, such as cars and trucks, which rely almost exclusively on imported fossil fuels for its energy. Electrifying ground transportation is presently the most efficient and impactful way to move transportation toward more renewable energy.

Investing in a Sustainable Hawai'i



This bill would create greater demand for electric vehicle charging infrastructure, a precursor to making electric vehicle ownership more appealing by reducing range anxiety. More electric vehicle charging stations would have the additional benefit of providing the potential to add battery storage capacity and/or demand response capacity to the electric grid.

Hawai'i ranks second in the nation behind California in the number of electric vehicles registered as a percentage of vehicles. As of December 2017, electric vehicles represented 0.63 percent of all registered vehicles. In 2017, electric vehicle registrations increased by 31 percent while gasoline vehicle registration only increased by 1 percent. Electric vehicles are only going to grow in market share of vehicles and therefore this bill takes a reasonable proactive approach to support new technology.



Source: DBEDT Figures



Yet even as electric vehicle ownership is growing in Hawai'i, public electric vehicle charging infrastructure is not keeping up. In October 2015, there were 8.43 electric vehicles for every public level 2/3 charger in Hawai'i. Yet, in March 2017, there were 10.40 electric vehicles for every public level 2/3 charger in Hawai'i.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

HB-2274

Submitted on: 2/12/2018 11:08:27 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Alan Takumi	Association of Owners of Kalele Kai	Oppose	No

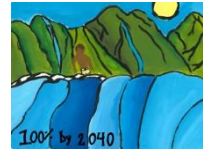
Comments:

The requirement to have one electric vehicle supply equipment point for every ten/five residential spaces is not possible without adversely impacting the rights of the owner's use of their stalls. For example, I had managed a condominium with 219 units with 2 stalls assigned to each unit (438 stalls) with 31 guest stalls for a total of 469 stalls. If this bill passes, beginning July 1, 2021, the association will need to convert 47 stalls to the exclusive use for an electric vehicle which means all guest stalls will be restricted to electric vehicles and an additional 16 owner's stalls will have to be taken from them. This just cannot be done.

HRS 196-7.5 already allows an owner to install an electric vehicle charging system on or near their stall:

[§196-7.5] Placement of electric vehicle charging system. (a) Notwithstanding any law to the contrary, no person shall be prevented by any covenant, declaration, bylaw, restriction, deed, lease, term, provision, condition, codicil, contract, or similar agreement, however worded, from installing an electric vehicle charging system on or near the parking stall of any multi-family residential dwelling or townhouse that the person owns. Any provision in any lease, instrument, or contract contrary to the intent of this section shall be void and unenforceable.

(b) Every private entity may adopt rules that reasonably restrict the placement and use of electric vehicle charging systems for the purpose of charging electrical vehicles in the parking stalls of any multi-family residential dwelling or townhouse; provided that those restrictions shall not prohibit the placement or use of electric vehicle charging systems altogether. No private entity shall assess or charge any homeowner any fees for the placement of any electric vehicle charging system; provided that the private entity may require reimbursement for the cost of electricity used by such electric vehicle charging system.



HOUSE COMMITTEE ON ENERGY AND THE ENVIRONMENT

February 13, 2018, 8:30 A.M.

Room 325

(Testimony is 6 pages long)

TESTIMONY IN STRONG SUPPORT OF HB2274

Aloha Chair Lee, Vice Chair Lowen, and members of the Committee:

Blue Planet Foundation strongly supports House Bill (HB) 2274, which updates the language on the state's electric vehicle charging requirements and, beginning in 2021, expands the requirements to workplaces and multi-family residential properties with over 200 parking stalls. The bill also defines three different levels of charging equipment and creates a point system to give parking facilities the flexibility to meet the requirements with a variety of charging levels in order to best meet the needs of each facility.

Blue Planet Foundation is a local, mission-driven nonprofit committed to clearing the path for 100% clean energy in Hawaii and believes that electric vehicles (EVs), will play a pivotal role in helping to eliminate fossil fuel use for both the ground transportation and the electricity sector. EVs are better for the environment, can lower household transportation costs, and can help Hawaii's electric utilities achieve 100% renewable electricity while lowering household electric bills.

The volume and model types of battery electric vehicles coming onto the market are expected to dramatically increase in the next five to seven years due to falling costs and EV-supportive policies from nations around the world, particularly those of China, the world's largest vehicle market.

The longer driving ranges, lower costs, and larger selection of models will make it possible for many of Hawaii's residents to lower their carbon footprints and take advantage of the economic benefits that EVs offer. However, the availability and accessibility of charging facilities will likely become a significant barrier in coming years, particularly for those living in apartments and condominiums.

Over the past year, Blue Planet Foundation did an extensive study of the existing public charging network in the state and compliance with the state's existing charging requirements. We found that compliance with the requirements is low, around 25%, and that the public charging network is already under strain in some areas due to the growth in EVs sales. We anticipate that with the tremendous influx of new EVs coming onto the market in the next few years with lower prices and longer driving ranges, the current charging requirements will not be sufficient to accommodate the charging needs of the state, even if compliance levels were much higher.

House Bill 2274 aims to tackle this problem by increasing the charging requirements and extending them to workplace and multi-family residential properties, and by adding a compliance mechanism. At the same time, the bill differentiates between three levels of charging and allows for workplaces and multi-family properties to meet the requirements through level 1 charging equipment, which can dramatically reduce costs.

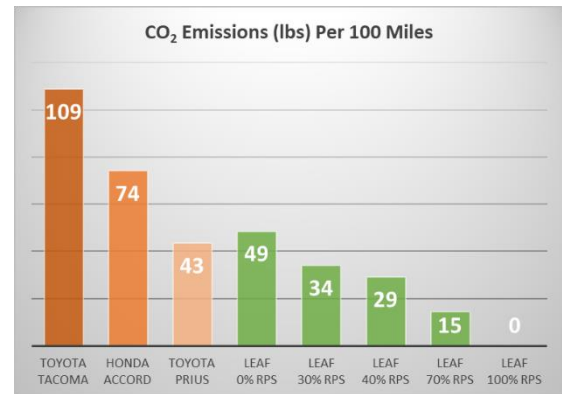
info@blueplanetfoundation.org

55 Merchant Street 17th Floor • Honolulu, Hawai'i 96813 • 808-954-6142 • blueplanetfoundation.org

Environmental and Cost Benefits

Electric vehicles produce less carbon than conventional vehicles, even when the electricity used to power them comes from fossil fuels. And with the State’s 100% renewable portfolio standard, EVs will be carbon free by 2045.

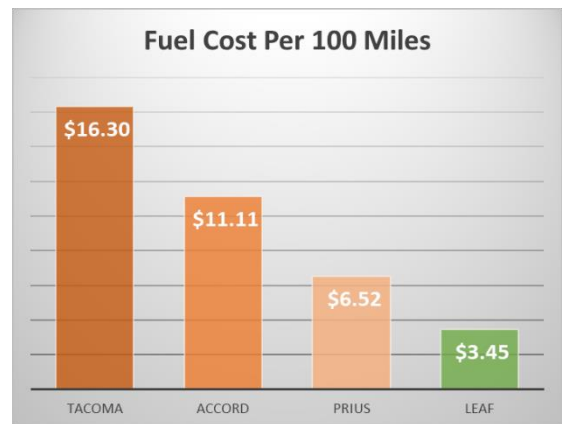
In addition to the environmental benefits, EVs also present a number of economic benefits to Hawaii residents. Due to lower fuel and maintenance costs, EVs tend to be significantly less expensive to operate than conventional vehicles.



Falling Prices and More Models

Battery costs have fallen precipitously over the past several years so that in many cases, the total cost of ownership for EVs is lower than for conventional vehicles.

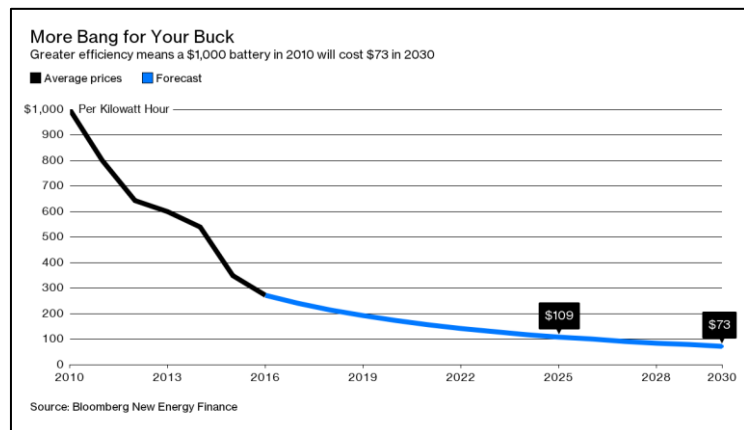
Experts expect battery prices to continue to fall and as automakers increase the number of models and volume of EVs in the next few years, the upfront cost of EVs is expected to reach upfront cost parity with conventional vehicles by 2025.¹



Assumes \$3.00 per gallon gasoline and HECO’s Residential Interim Time of Use Rates and charging during mid-day off peak period (\$0.128/kWh).

In part due to falling costs and increasing consumer demand, and in part due to government policies supporting EVs, **nearly all of the world’s leading automakers have announced aggressive strategies and investments in electric vehicles during the past year.**

Perhaps the biggest single factor contributing to this dramatic strategic shift towards electric is the fact that the world’s largest auto market, China, has announced that it is working on a policy that would ban internal combustion engine vehicles outright as soon as 2030.²



¹ Bloomberg New Energy Finance. <https://about.bnef.com/blog/electric-cars-reach-price-parity-2025/>

² The Economist. “China moves towards banning the internal combustion engine” <https://www.economist.com/news/business/21728980-its-government-developing-plan-phase-out-vehicles-powered-fossil-fuels-china-moves>

Major Automaker Commitments to EVs

Group	Brands	EV Plans/Commitments
Toyota	Toyota, Lexus, Daihatsu, Isuzu	10 all electric models by early 2020s. Investing \$13.3B on R&D for EVs and batteries by 2030.
Volkswagen	VW, Audi, Bentley, Bugatti, Lamborghini, Porsche	To spend up to \$84B to bring 300 EV models to market by 2030, hybrid or electric version of every model car they offer by 2030. 80 new electric vehicle models by 2025. \$40B from 2017-2022 (five years) to develop battery powered vehicles, autonomous-driving features, and ride-hailing systems
Hyundai	Hyundai, Kia	Eight EVs by 2022, dedicated EV platform.
General Motors	Buick, Cadillac, Chevy, GMC	Two new electric crossovers by mid 2019, 20 new electric models by end of 2022, 1 million units by 2026 GM "believes the future is all-electric"
Ford	Ford, Lincoln	\$11B investment, 40 electrified vehicles (16 full BEVs) by 2022.
Nissan	Nissan, Infinity	Partnering with Nissan to launch 12 ZEVs by 2022.
Honda	Honda, Acura	Two-thirds of all vehicles electrified by 2030.
Renault	Renault	Partnering with Nissan to launch 12 ZEVs by 2022.
Groupe PSA	Peugeot, Citroen, Opel	To offer an all-electric vehicle by 2019, four by 2021, and 3 new plug-in hybrids To offer 40 EV models by 2025, and plans to sell vehicles in the US within 10 years
Suzuki	Suzuki	Partnering with Toyota to produce small electric car for India by 2020.
SAIC	MG, Roewe	To invest 20 billion yuan in new energy vehicles, release more than 30 new models, and work to meet a sales target of 600,000 units by 2020.
Daimler	Mercedes-Benz, Smart	Electric versions of all models by 2022, Smart fully electric.
BMW	BMW, Rolls-Royce, Mini	To offer 25 electrified vehicles in its lineup by 2025, 12 of those fully electric—to have useable range of up to 435 miles.

Compliance with State Requirements

Frustration over the lack of information on the current and potential impacts of state charging requirement found in HRS §291-71 led to Blue Planet Foundation undertaking a study to assess compliance with the statute and evaluate the overall policy approach. Here are the basic findings of our study:

Low Compliance

As was expected based on the absence of enforcement mechanisms, our research found that compliance with HRS §291-71 is quite low, with just over 25.1% of the 752 obligated properties statewide complying with the statute.

Compliance with State Charging Requirements

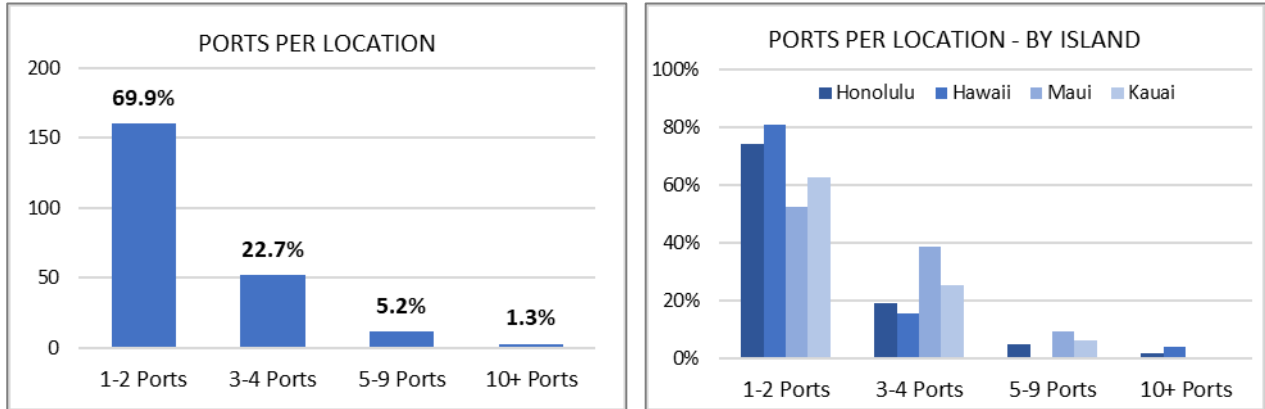
Island/County	Properties Obligated to Install EVSE		
	Obligated	Compliant	Compliance %
Honolulu	466	121	26.0%
Hawai'i	96	20	20.8%
Maui	134	34	25.4%
Kauai	56	14	25.0%
Total	752	189	25.1%

Charging Ports Spread Thin

An additional finding we uncovered during our research is that although the policy has led to the development of a fairly large number of charging ports, the deployment of those ports has been spread

very thinly over a large number of properties. Of the 229 locations identified as having public charging, 69.9% had only one or two ports and only 6.6% had five or more ports.

Charging Locations by No. of Ports - Statewide and by County



This thin deployment of charging ports makes the network less reliable than it would be if the same number of ports were deployed among fewer locations. One of the major weaknesses of the current statute is that it encourages a large number of charging locations with very few ports, and therefore encourages a public charging network that is not as reliable as it could be.

Conclusion

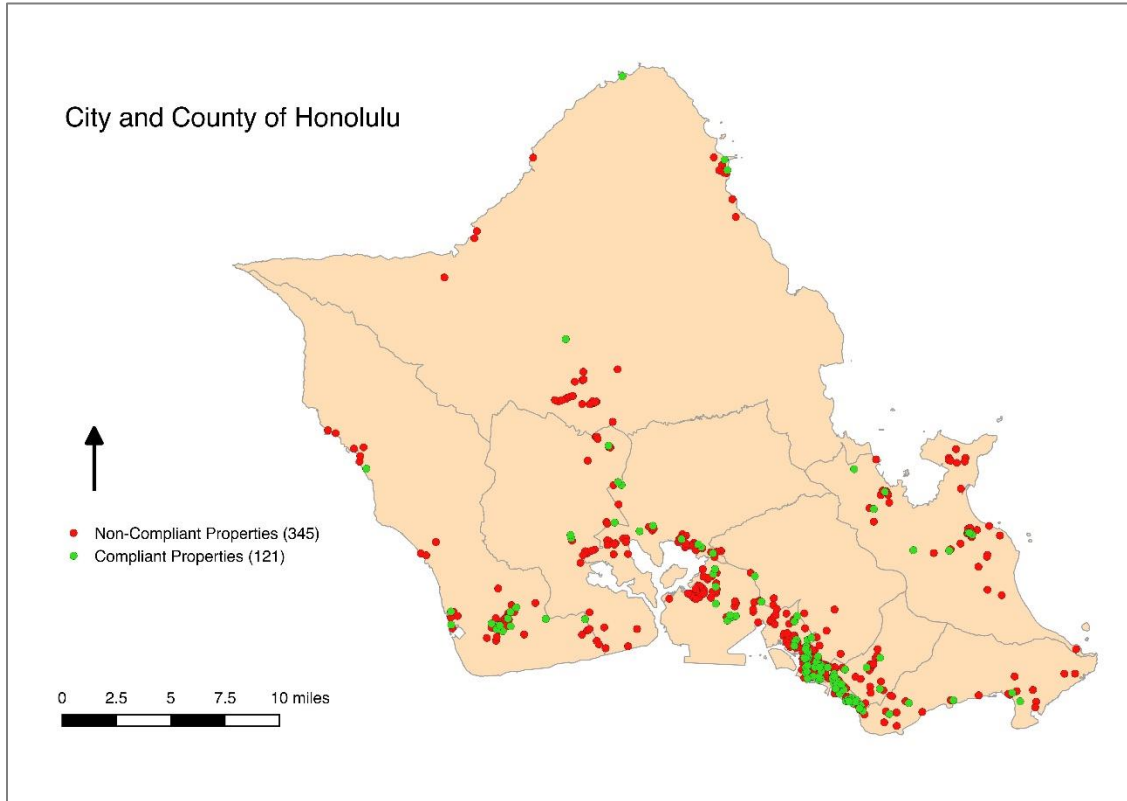
Electric vehicles are better for the environment and the economy, and can help Hawaii’s electric utilities achieve 100% renewable electricity. Hawaii’s public charging network is already under strain in many areas due to the increase in EV registrations. The large influx of new EVs coming onto the market in the next few years with lower prices and longer ranges mean that access to public charging could severely limit the number of Hawaii residents who will be able to take advantage of the environmental benefits and lower ownership costs of those vehicles.

We believe that this bill will help to expand the supply and reliability of public charging facilities and thereby expedite the uptake of EVs, thereby lowering Hawaii’s environmental footprint and household transportation costs.

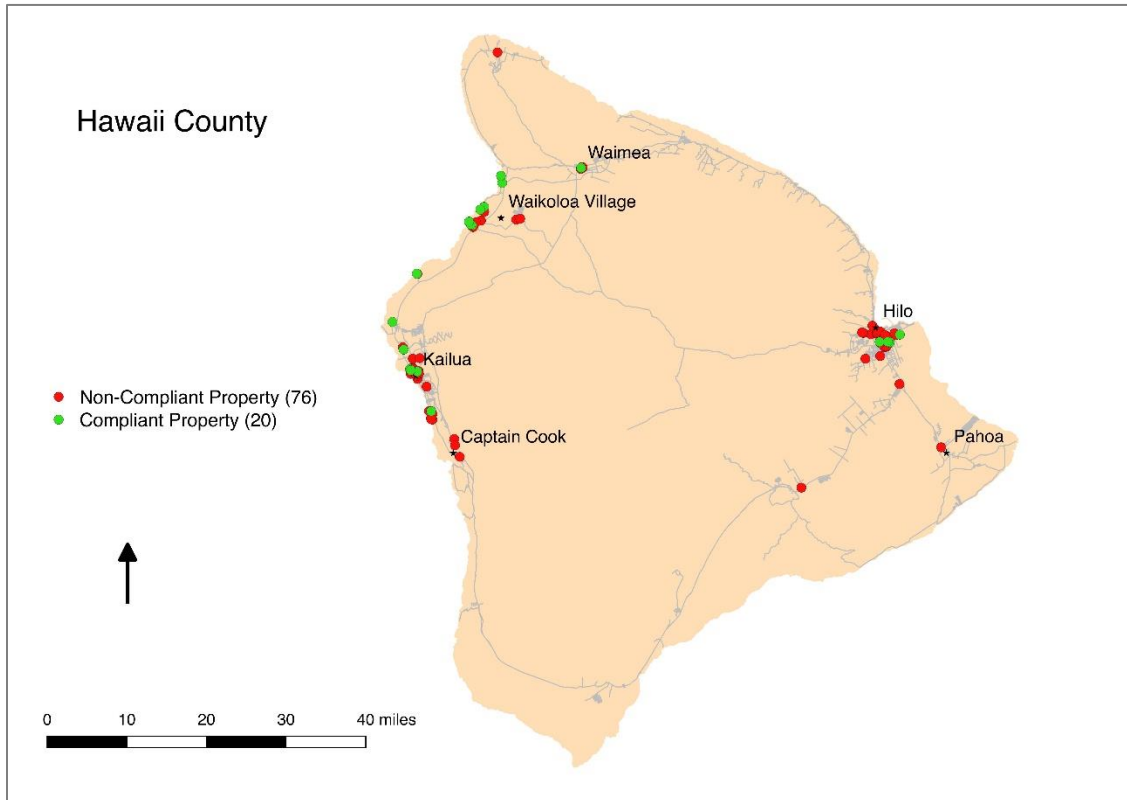
Thank you for the opportunity to testify.

The following two pages include maps showing compliance with state electric vehicle charging requirements on Oahu, the Big Island, Maui, and Kauai.

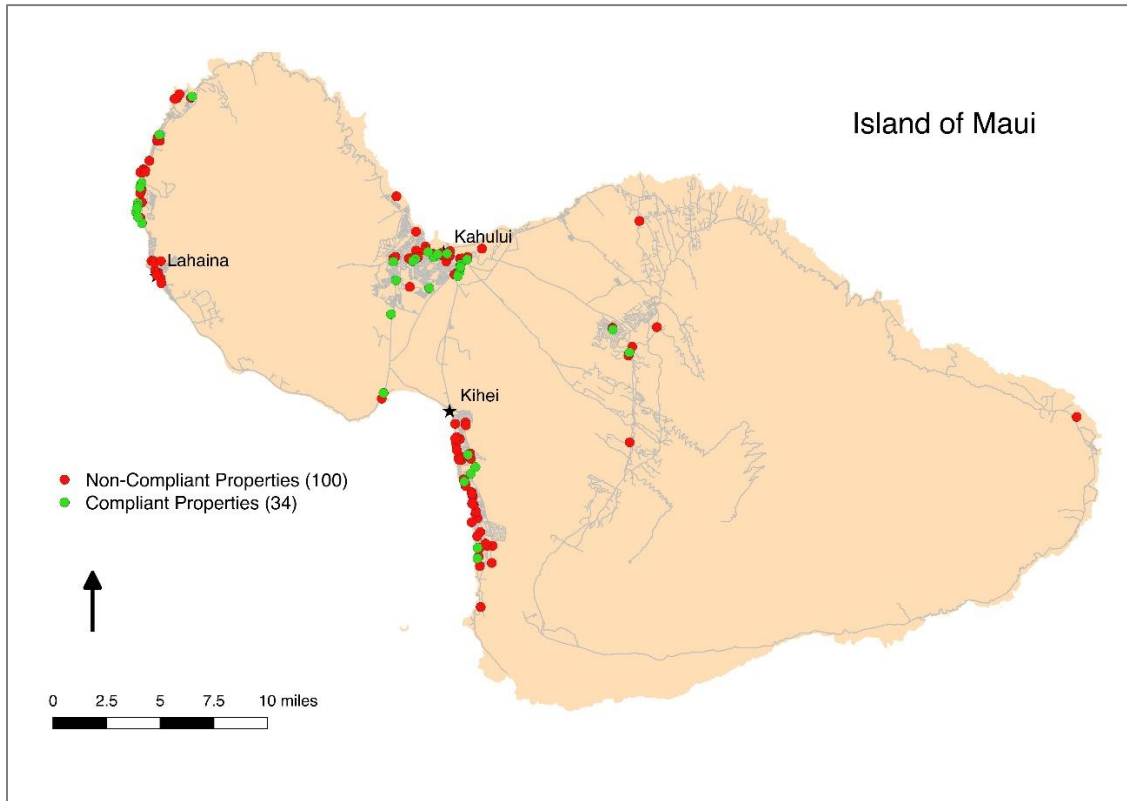
City and County of Honolulu – Charging Requirements Compliance Map



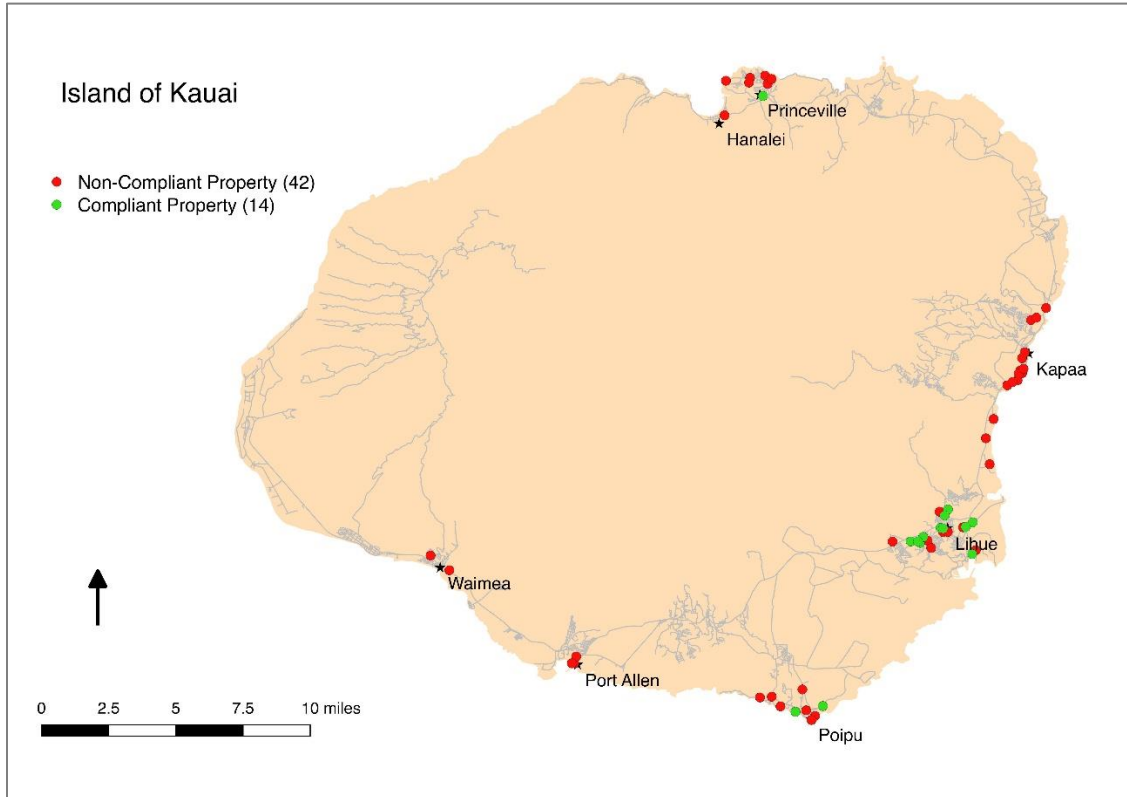
Hawaii County – Charging Requirements Compliance Map



Island of Maui – Charging Requirements Compliance Map



Island of Kauai – Charging Requirements Compliance Map



**Testimony before the House Committee on
Energy & Environmental Protection**

**Tuesday, February 13, 2018
8:30 am, Conference Room 325**

**By Brennon Morioka
General Manager, Electrification of Transportation
Hawaiian Electric Company, Inc.**

House Bill 2274 – Relating to Electric Vehicle Charging Infrastructure

Chair Lee, Vice-Chair Lowen, and Members of the Committee:

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, the "Hawaiian Electric Companies").

House Bill 2274 seeks to expand the State's existing electric vehicle charging requirements to include parking lots for multi-unit buildings and workplaces, and sets goals for implementing increased electric vehicle charging at public facilities and workplaces.

The Hawaiian Electric Companies support the intent of this bill but has concerns about potential financial impacts to existing and older parking structures or facilities. This bill continues to support the adoption of electric vehicles through strong initiatives that send a clear message that the State supports clean transportation. The Hawaiian Electric Companies applaud the proposal's acknowledgment of the value and challenges associated with installing higher capacity charging facilities for public use by providing greater credits in the bill for fast charging facilities. This will lead to more efficient utilization of limited public space and support burgeoning high-capacity charging technologies. Numerous studies have shown that increased availability of electric vehicle charging infrastructure is the true linchpin for the adoption of electric vehicles, and will become increasingly necessary as more residents and visitors choose electric vehicles as their primary mode of transportation.

However, placing this requirement on existing multi-unit buildings and older parking structures where the cost to provide such infrastructure upgrades may be difficult and focus should maybe be placed on charging requirements for new construction.

In recent years, the Hawaiian Electric Companies have undertaken several efforts to support the adoption of electric vehicles, such as the development of a growing DC Fast Charger network, with over 12 locations across the Companies' service territory. The Companies currently have time-of-use rates for home electric vehicle charging, and are developing a strategy filing with the Public Utilities Commission to explore and expand our participation in Hawaii's transition to electrified transportation.

In short, this bill supports the momentum and progress already achieved in transforming Hawaii's ground transportation to electric vehicles. To support the State's efforts in eliminating dependence on fossil fuel, it is important that electric vehicles have the support of robust charging infrastructure investment.

Thank you for the opportunity to testify.



**TESTIMONY OF TINA YAMAKI
PRESIDENT
RETAIL MERCHANTS OF HAWAII
February 13, 2018**

Re: HB 2274 Relating to Electric Vehicle Charging Infrastructure

Good morning Chairman Lee and members of the House Committee on Energy & Environmental Protection. 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.

Retailers continue to be concerned about our aina and have supported many initiatives that preserve and protect our environment. However, The Retail Merchants of Hawaii does not support HB 2274 Relating to Electric Vehicle Charging Infrastructure. This bill would increase the number of charging stations and parking spaces designated specifically for electric vehicles.

We believe that the market and customers should be the influencers in business trends and operations and not government mandates. Taking away more open public parking stalls and turning them into reserved EV stalls would hurt businesses, especially on weekends when many go to the malls and stores to shop and turn away when they can't find a stall. Retailers and shopping malls already provide these "reserved parking spaces" with a FREE charging station for electric vehicles. These stalls for EV come at a cost to businesses who must pay to for the additional electricity.

Many of our members have found EV drivers in the surrounding neighborhood and condominiums come to plug into the retailers charging stations to avoid increasing their electric bill at home or because their complex does not have the ability to charge the EV. Furthermore, these residents leave their cars charging AND are not shopping in the stores while their batteries are being recharged. Thus these residents are taking away the EV stall from customers coming to shop. And the money that is spent in the stores in turn supports our family, friends and neighbors who work in the stores.

We would also like to point out that with the advancement of technology, the newer model Electric Vehicles can travel further distances. There are also other cars being developed that uses alternatives to traditional gas-powered car like that of hydrogen fuel cell. We are concerned that government will begin to mandate reserved parking stalls for all of the various types alternative gas powered vehicles and that businesses with large parking lots would just become a FREE charging station for the public and not able to offer convenient parking for the customers that actually shop in the stores. Government mandates like this does drive up the cost of doing business that in turn drives up the cost of living in Hawaii.

We urge you not to impose another government mandate on business and ask that you hold this measure.

Mahalo for this opportunity to testify.



LATE

“Advancing the Commercial Property Management Industry through Education, Networking and Advocacy”

Testimony to the
House Committee on Energy & Environmental Protection
February 13, 2018
8:30 a.m.
State Capitol - Conference Room 325

RE: HB 2274 Relating to Electric Vehicle Charging Infrastructure

Aloha Chair Lee, Vice Chair Lowen and members of the committee:

We are testifying on behalf of the Building Owners and Managers Association of Hawaii. BOMA Hawaii supports energy efficient alternatives in transportation but opposes inflexibility in regulations. We offer the following comments:

It has been estimated that more than 100,000 electric vehicles are now on the road in the United States, and this is only expected to grow. As plug-in cars have become more visible on the nation’s highways and local streets, there has also been a corresponding need for electric vehicle charging stations. This emerging need is creating a marketplace demand. Many building owners have installed EV charging stations and have successfully used it as a profit center as well as an amenity to attract new business and/or new tenants. Others are reluctant to take on the cost (installation cost, lost revenue from lost parking spaces, etc.), ongoing maintenance and management responsibilities, and liability. Where building owners are able to balance the benefits and potential draw backs, and where it makes economic sense, property owners will move forward to meet the need, without federal, state or local mandates. If this bill advances, we request to be a part of the dialogue concerning its impacts on the community and economy.

Thank you for the opportunity to testify.

HB-2274

Submitted on: 2/11/2018 3:52:52 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Graham	350.org	Support	No

Comments:

I support expanding the State's existing electric vehicle charging requirements to include parking lots for multi-unit buildings and workplaces as HB2274 would ensure for the following reasons:

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage by showing people the infrastructure is there to support their purchase of a zero emission vehicle.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by making parking and charging ZEVs a non-issue.

This will allow us to plan ahead for a fossil free future that we need to move towards to protect the aina.

HB-2274

Submitted on: 2/10/2018 9:50:20 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Shyla Moon		Oppose	No

Comments:

Discrimination.

HB-2274

Submitted on: 2/10/2018 5:15:58 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Emery	Associa	Oppose	No

Comments:

This is simply not workable for an association. We support the testimony of CAI.

HB-2274

Submitted on: 2/10/2018 10:43:33 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jonathan Boyne		Support	No

Comments:

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by making parking and charging ZEVs a non-issue.

HB-2274

Submitted on: 2/11/2018 5:28:09 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mary True		Support	No

Comments:

I support this bill because renewables are the future and, as an island, we need to move away from fossil fuels.

HB-2274

Submitted on: 2/11/2018 8:16:38 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Richard Reed		Support	No

Comments:

This bill is in the health, economic, and shoreline security interests of the people of Hawaii. The 3 year lead time is adequate to begin this charge point installation. The time to begin is NOW!

HB-2274

Submitted on: 2/11/2018 9:36:32 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara L. George		Support	No

Comments:

SUPPORT! We need to encourage people to go electric by providing access to charging stations and growing the infrastructure to support this.

HB-2274

Submitted on: 2/11/2018 11:43:19 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Randy Ching		Support	No

Comments:

Chair Lee, Vice Chair Lowen and members of the committee:

I support HB2274. As an owner of a Nissan Leaf, I appreciate the problems electric car owners have in charging their vehicle. This bill would definitely help with that problem.

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

Hawaii should begin the process of getting to 100% renewable ground transportation by 2045. This bill is a step in that direction. Please pass HB2274.

Thank you for the opportunity to testify.

Randy Ching / Honolulu / makikirandy@yahoo.com

HB-2274

Submitted on: 2/11/2018 12:44:37 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Nanea Lo		Support	No

Comments:

Hello,

I'm respectfully writing in to say please support this bill.

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by making parking and charging ZEVs a non-issue.

HB-2274

Submitted on: 2/11/2018 5:51:37 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Patricia Blair		Support	No

Comments:

HB-2274

Submitted on: 2/9/2018 5:37:52 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Circe Carr		Support	No

Comments:

HB-2274

Submitted on: 2/11/2018 6:11:18 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
L.M. Holmes	Dr.	Support	No

Comments:

It is extremely important to expand the available EV charging opportunities to facilitate growth in the percentage of EV vehicles.

HB-2274

Submitted on: 2/11/2018 7:27:12 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
tlaloc tokuda	n/a	Support	Yes

Comments:

I belong to 350HI and we seek to keep fossil fuels in the ground and to promote renewable technologies. We support HB2274 for the following reasons.

Expands the State's existing electric vehicle charging requirements to include parking lots for multi-unit buildings and workplaces.**Talking Points:**

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by making parking and charging ZEVs a non-issue.

[1] http://files.hawaii.gov/dbedt/economic/data_reports/energy-trends/Energy_Trend.pdf

[2] <https://www.eia.gov/state/analysis.php?sid=HI>

HB-2274

Submitted on: 2/11/2018 9:48:18 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Sherry Pollack		Support	No

Comments:

HB-2274

Submitted on: 2/12/2018 10:29:28 AM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
John NAYLOR	N/A	Support	No

Comments:

HB-2274

Submitted on: 2/12/2018 12:49:06 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Meredith Buck		Support	No

Comments:

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

As the number of ZEVs inevitably grows, the number of designated parking spaces and supply equipment points must grow to accommodate them. Large parking areas are especially important because ZEV drivers cannot just park "next door" where there might be a parking space and supply equipment point available.

The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [2]. This bill will help reduce Hawaii's greenhouse gas emissions by making parking and charging ZEVs a non-issue.

LATE

HB-2274

Submitted on: 2/12/2018 6:14:03 PM

Testimony for EEP on 2/13/2018 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Stuart Scott	Individual	Support	No

Comments:

I live in Honolulu and am kama'aina for over 3 decades. My bona fides in presenting this testimony stem from my 10 years as an active Observer Party to the UN climate negotiations, and all of the attendant study, research and interaction with other concerned parties over the many complex facets of climate change and energy consumption.

I support this bill and encourage its adoption. By themselves, electric vehicles will not automatically be a 'climate solution'. Indeed, if HECO and the other neighbor island electrical utilities keep generating most of their electricity from fossil fuels, electric cars will do little to reduce climate change. However, the conversion to electric vehicles that would be stimulated by this bill COMBINED with legislative pressure on the electric utilities to implement renewable energy sources, and increase contributions from distributed sources like rooftop PV will help reduce climate change.

Please pass this bill.