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Testimony of
MARK B. GLICK, Chief Energy Officer

before the
**SENATE COMMITTEES ON GOVERNMENT OPERATIONS
AND
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

Tuesday, March 19, 2024
3:01 PM
State Capitol, Conference Room 225 and Videoconference

In Support of
HB 1829, HD1

RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE.

Chairs McKelvey and DeCoite, Vice Chairs Gabbard and Wakai, and members of the Committees, the Hawai'i State Energy Office (HSEO) supports HB 1829, HD1. The measure would require at least twenty-five per cent of parking stalls be electric vehicle (EV) charger-ready for any new state building construction that includes parking spaces. The measure also sets forth other requirements noted below and appropriates funds:

- HSEO, in consultation with the Department of Accounting and General Services and Department of Transportation, shall survey existing state facilities statewide that include parking and prioritize retrofitting those state facilities, among other things.
- It shall be the goal of the State to retrofit state facilities to be EV charger-ready.
- HSEO shall submit a report to the legislature including the results of the survey identifying between four to ten high-priority state facilities to be retrofitted to include EV charging infrastructure.

To achieve Hawai'i's ambitious goal of reducing carbon emissions to 50% by 2030 and establishing a net-negative carbon economy by 2045, significant reductions in ground transportation emissions are imperative. HSEO's *Hawai'i Pathways to Decarbonization*,

Act 238 Report, pursuant to Session Laws of Hawai'i 2022, highlights transitioning toward Zero Emission Vehicles as one of the two major facets to reducing emissions in ground transportation. This includes promoting the transition to battery electric vehicles which can significantly reduce emissions from vehicle operation¹.

According to the 2019 Greenhouse Gas Inventory, transportation emissions in Hawai'i were at 4.03 million metric tons of carbon dioxide equivalents, accounting for 55 percent of total energy sector emissions. Ground transportation accounted for 38 percent of the transportation emissions.² Emissions from ground transportation account for the second largest share of energy sector emissions in the state, following stationary combustion. For Hawai'i to meet its statutory target "to sequester more greenhouse gases than emitted as soon as practicable but no later than 2045", programs that support the adoption of cleaner transportation options are necessary and tremendously important.

The need for significant investment in charging infrastructure to meet Hawai'i's 2030 goal is evident from estimates for reliable access to charging. The California Energy Commission (CEC) concluded that a ratio of 7 EVs per public charger is needed to support the EV market, and Hawaii currently has 38 registered EVs per public charger.³ The significant spread between current conditions and the CEC's estimate is evident that there is an unmet need in reasonably estimated public charging demand to support current adoption rates whether or not the CEC estimate is directly applicable to Hawaii.

All three mitigation scenarios in HSEO's *Hawai'i Pathways to Decarbonization* report assume Hawai'i will have one hundred percent zero-emission light-duty vehicle sales by 2035. At least twenty one percent of registered light duty passenger vehicles are reasonably needed to be zero emission vehicles by 2030 to achieve state emission reduction goals. Hawai'i needs to expand access to EVs and EV charging beyond the early adopters in single family unit dwellings. HB 1829, HD1, will support the adoption of

¹ Hawai'i State Energy Office (2023). [Hawai'i Pathways to Decarbonization, Act 238 Report to the 2024 Hawai'i State Legislature \(Act 238 Report\), page 104](#)

² State of Hawaii, Department of Health. Greenhouse Gas Inventory [Hawai'i Greenhouse Gas Emissions Report for 2005, 2018, and 2019 \(hawaii.gov\)](#)

³ From Alliance for Automotive Innovation "Get Connected Electric Vehicle Quarterly Report, Third Quarter, 2023"

EVs by employees living in multi-unit dwellings who often lack reasonable access to regular charging, thus fostering equity in electric vehicle (EV) adoption.

In addition to the crucial role electric vehicles play in achieving our state's decarbonization goals, HB 1829, HD1, addresses a critical aspect of our renewable energy transition. By mandating that at least twenty-five percent of parking stalls in new state building construction be electric vehicle charger-ready, this bill not only promotes the adoption of cleaner transportation, but also strategically contributes to managing energy demand.

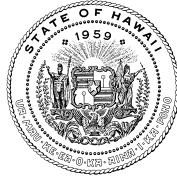
One of the challenges in transitioning to renewable energy sources is the fluctuating nature of power generation coming from intermittent renewable resources. To maximize the benefits of our abundant renewable resources, it is beneficial to encourage electric vehicle owners to charge their vehicles during periods of high renewable energy availability. HB 1829, HD1, aligns with this objective by ensuring that a significant portion of parking spaces are equipped to support electric vehicle chargers, promoting daytime charging when renewable energy sources, such as solar, are more abundant.

This bill is a big step towards making EV adoption more inclusive and accessible, particularly for individuals who cannot easily charge at home. Beyond its impact on EV accessibility, the legislation also plays a crucial role in shifting energy demand away from peak periods, when renewable energy may be less available, towards times when our clean energy sources are abundant. This dual effect not only bolsters the reliability of our energy grid, but also maximizes the environmental benefits inherent in the widespread adoption of electric vehicles.

In regards to an appropriation, HSEO supports the measure so long as it does not adversely impact priorities identified in the Executive Supplemental Budget Request for FY2025.

Thank you for the opportunity to testify.

JOSH GREEN, M.D.
GOVERNOR
KE KIA'ĀINA



KEITH A. REGAN
COMPTROLLER
KA LUNA HO'OMALU HANA LAULĀ

MEOH-LENG SILLIMAN
DEPUTY COMPTROLLER
KA HOPE LUNA HO'OMALU HANA LAULĀ

STATE OF HAWAI'I | KA MOKU'ĀINA O HAWAI'I
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES | KA 'OIHANA LOIHELU A LAWELAWÉ LAULĀ
P.O. BOX 119, HONOLULU, HAWAII 96810-0119

WRITTEN TESTIMONY
OF
KEITH A. REGAN, COMPTROLLER
DEPARTMENT OF ACCOUNTING AND GENERAL SERVICES
TO THE

**COMMITTEES ON GOVERNMENT OPERATIONS
AND
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

TUESDAY, MARCH 19, 2024, 3:01 P.M.
CONFERENCE ROOM 225 AND VIA VIDEOCONFERENCE, STATE CAPITOL

H.B. 1829, H. D. 1

RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Chairs McKelvey and DeCoite, Vice Chairs Gabbard and Wakai, and members of the Committees, thank you for the opportunity to submit testimony on H.B. 1829, H.D. 1, which requires beginning July 1, 2024 where feasible and cost effective, the design of all new state building construction where parking is to be included, to provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready, and requires the Hawaii State Energy Office, in consultation with the Department of Accounting and General Services and Department of Transportation, to conduct a survey and identify certain high-priority state facilities, and establishes a goal of the State to retrofit state facilities to be electric vehicle charger-ready.

The department **supports** the intent of this measure and offers the following **comments:**

1. The department suggests that the appropriation amount in Section 5 of the measure be set at a minimum of \$250,000. This will allow the department to conduct detailed cost assessments to determine the cost to install, or contract for the installation of, retrofits and electric vehicle charging systems at the high-priority state facilities identified in Section 3 of this Act. The department supports this measure as long as it does not adversely impact priorities identified in the executive supplemental budget request for FY 2025.
2. The department also suggests that the appropriation be expended by the Hawaii State Energy Office which Section 3 of the measure identifies as the agency to lead the survey of existing facilities and to report on the results of that survey.

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



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

Co-Chairs:
Chair, DLNR
Director, OPSD

Commissioners:
Chair, Senate AEN
Chair, Senate WTL
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Director, DOH
Chairperson, DOE
Director, C+C DPP
Director, Maui DP
Director, Hawaii DP
Director, Kauai DP
The Adjutant General
Manager, CZM

**Testimony of
Leah Laramee
Coordinator, Hawai'i Climate Change Mitigation and Adaptation Commission**

**Before the Senate Committees on
GOVERNMENT OPERATIONS
and
ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

**Tuesday, March 19, 2024
3:01 p.m.
State Capitol, Conference Room 225 & Videoconference**

**In consideration of
HOUSE BILL 1829 House Draft 1
RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE**

House Bill 1829 HD1 requires the design of all new state building construction where parking is to be included to provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready.. Requires the Hawai'i State Energy Office, in consultation with the Department of Accounting and General Services (DAGS) and Department of Transportation, to conduct a survey and identify certain high-priority state facilities. This bill also establishes a goal of the State to retrofit state facilities to be electric vehicle charger-ready. **The Climate Change Mitigation and Adaptation Commission (Commission) supports this bill.**

The Commission consists of a multi-jurisdictional effort between 20 different departments, committees, and counties. Decarbonizing our transportation system as quickly as possible is key for us to reach our mandated 2045 carbon emission goals. Policies are needed to support zero emission vehicle (ZEV) deployment on our roadways. This includes leveraging investments through the National Electric Vehicle Infrastructure program to expand public charging availability; working with utilities to expand investments in ZEV infrastructure and otherwise prepare for vehicle electrification; and establishing EV-ready requirements to ensure new housing and parking facilities will accommodate EV charging infrastructure.

The Commission also respectfully suggests the addition of language to include that new construction parking structures also include capacity increased multi-modal transportation options. The Commission is working with DAGS and other State, county and non-government stakeholders on a project to develop a plan for assessment of State parking facilities on O'ahu that will allow

for multi-modal use. It proposes to identify and describe State parking facilities, including their utilization rates; evaluate and price various ways to make better use of these state assets in ways that encourage the use of alternative transportation and mobility options; and overall, help optimize State and county goals for clean transportation while maximizing the public benefit.

The Walker study (2016) found that Honolulu's downtown urban core contained underutilized parking--as low as 71 percent in peak times--in other words, O'ahu has overbuilt parking for cars. As technology continues to disrupt transportation, the parking needs for multimodal and systems other than the single occupancy vehicle will continue to grow. If the State's goals for a clean energy future are to be realized, it must plan and implement smarter strategies for parking. To encourage the optimal use of these spaces, private and public, it is necessary to begin planning for parking garages/lots that will support transportation of the future.

Mahalo for the opportunity to testify in support of this measure.



**Hawaiian
Electric**

**TESTIMONY BEFORE THE SENATE COMMITTEES ON
GOVERNMENT OPERATIONS
AND
ENERGY, ECONOMIC DEVELOPMENT, & TOURISM**

**HB 1829, HD1
Relating to Electric Vehicle Charging Infrastructure**

Tuesday, March 19, 2024
3:01 PM
State Capitol, Conference Room 225

Terea Macomber
Policy Strategy & Community Program Manager
Hawaiian Electric

Dear Chair McKelvey, Chair DeCoite, Vice Chair Gabbard, Vice Chair Wakai, and Members of the Committees,

My name is Terea Macomber and I am testifying on behalf of Hawaiian Electric in **support of and requesting an amendment** to HB 1829, HD1, Relating to Electric Vehicle Charging Infrastructure which seeks to encourage workplace charging by requiring state facilities to become electric vehicle (EV) charger ready. Hawaiian Electric commends the legislature's proposal to encourage the State to lead by example by requiring all new state facilities to be EV-ready and evaluate existing state facilities to retrofit with EV charging. These efforts will generate Hawaii-based data and costs for EV-ready infrastructure and make-ready infrastructure leading to more informed planning and budget assumptions statewide as the State strives to meet the most progressive decarbonization goals in the country. Additionally, Hawaiian Electric supports the intent to retrofit prioritized facilities with make-ready infrastructure.

While we support this bill, we are requesting an amendment on page 3, line 16 to remove the limiting language “where feasible and cost-effective.” The amendment would read as follows:

Beginning July 1, 2024, ~~where feasible and cost-effective,~~ the design of all new state building construction where parking is to be included shall provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready.

Increased access to workplace charging is a strategic initiative that creates equitable, accessible EV charging options for employees and shifts energy demand. Hawaiian Electric supports workplace charging to incentivize the adoption of EVs and encourage off-peak charging when renewable energy is abundant. We support this bill and the State’s leadership during this transition to an electrified future.

Thank you for this opportunity to testify in support of and requesting an amendment to HB 1829, HD1.



Email: communications@ulupono.com

SENATE COMMITTEES ON GOVERNMENT OPERATIONS AND ENERGY, ECONOMIC
DEVELOPMENT & TOURISM
Tuesday, March 19, 2024 — 3:01 p.m.

Ulupono Initiative supports with comments HB 1829 HD1, Relating to Electric Vehicle Charging Infrastructure.

Dear Chair McKelvey, Chair DeCoite, and Members of the Committees:

My name is Micah Munekata, and I am the Director of Government Affairs at Ulupono Initiative. We are a Hawai'i-focused impact investment firm that strives to improve the quality of life throughout the islands by helping our communities become more resilient and self-sufficient through locally produced food, renewable energy, clean transportation choices, and better management of freshwater resources.

Ulupono supports with comments HB 1829 HD1, which requires that if parking is to be included in any new state building construction, the design provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready; requires the Hawaii State Energy Office, in consultation with the Department of Accounting and General Services and Department of Transportation, to conduct a survey and identify certain high-priority state facilities; and establishes a goal of the State to retrofit state facilities to be electric vehicle charger-ready.

In December 2023, the Hawai'i State Energy Office specifically recommended that Hawai'i needs to “[p]ursue incentives for and streamline permitting for public EV charging infrastructure[.]” to meet our climate goals and exceed the current projected reductions of 54%.¹ The lack of access to charging is one of the top barriers to EV adoption.² As such, additional action is required, and making our state facilities EV charger-ready is a positive move.

The Public Utilities Commission designed time-of-use rates that economically incentivize using electricity during the day. Unfortunately, this rate design creates some challenges when compared to the average EV driver’s charging pattern, which generally favors vehicle charging during the evening or overnight, when the vehicle is at home and not in use. Therefore, as this bill identifies, there is a need to invest in workplace charging, to better align the “charging opportunity” with lower cost time-of-use rates. Ulupono commends the Legislature in its efforts to lead by example, creating a pathway to develop robust workplace charging at state facilities, both as retrofits and in any new facility construction.

¹ https://energy.hawaii.gov/wp-content/uploads/2024/01/Act-238_HSEO_Decarbonization_Report.pdf

² <https://www.osti.gov/biblio/1854730>

Requiring qualifying facilities to be “EV-ready” is smart future-proofing. In 2021, the International Code Council (ICC) updated its building standards to include EV-ready provisions. One main rationale was that the cost of retrofits is significantly more expensive than when installed upfront, and such an upfront investment is a relatively small part of the total building cost. In some cases, EV-ready costs were an estimated 0.13–0.17% of total construction costs, usually \$1,000 per space or less.³ Other examples from California demonstrate that retrofits easily cost 2–8x as much as making new developments EV-ready.⁴ UluPono’s own research shows that a typical structured parking space can cost \$42,000–\$57,000 per space to build, so this relatively low incremental amount seems worth the option to expand EV access.⁵

Additionally, the counties have EV-readiness requirements to varying degrees. Honolulu, Maui and Kaua’i all require some degree of EV-readiness, whereas Hawai’i County requires some EV-readiness with charging. Passing this state policy will ensure comprehensive statewide coverage at the least cost to taxpayers.

However, relying exclusively on new facilities means that the network will potentially remain incomplete. A comprehensive effort to develop a retrofit plan is also very prudent.

UluPono recommends reconsideration of the limiting language that new construction be EV charging-ready “where feasible and cost-effective.” While the intent of this language is clearly to avoid unduly expensive or complex construction projects, this limiting language can also be interpreted to avoid making *any* investments because all EV-ready construction will likely be more costly than the alternative of doing nothing, even if such costs are negligible.

As our energy issues become more complex and challenging, we appreciate this committee’s efforts to look at policies that support clean ground transportation.

Thank you for the opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

³ <https://www.cleaneenergy.org/blog/ev-readiness-and-why-we-need-it-now/#:~:text=As%20a%20percentage%20of%20total,about%20%24920%20per%20parking%20spot>

⁴ https://www.energy.wsu.edu/documents/Regional%20Code%20Collab_EV%20Research%20Summary_7-20.pdf

⁵ <https://uluPono.com/media/ivcfs2pu/the-cost-of-parking-in-hawaii-report-2020-08.pdf?sha=27ef1b3a>



**SENATE COMMITTEE ON GOVERNMENT OPERATIONS
SENATE COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM**

March 19, 2024 at 3:01 PM
Conference Room 225

TESTIMONY IN SUPPORT OF HB 1829 HD1

Aloha Chair McKelvey, Chair DeCoite, and members of the Committees:

Blue Planet Foundation **supports HB 1829 HD1**, a House Majority Caucus bill which requires that new state buildings be electric vehicle charger-ready, evaluates the cost of retrofitting existing state parking facilities to be EV-ready, and sets a goal for retrofitting existing high priority facilities. This bill would increase access to workplace EV charging for state employees and save the state money on future EV charger installation costs.

Blue Planet supports a minimum of 25% of new parking stalls shall be made EV-ready to Level 2, similar to what was enacted in the City and County of Honolulu's Ordinance 20-10 (Bill 25 (2019)) for new commercial and multi-residential buildings.¹

Electric vehicles are shaping the future of transportation

Electric vehicles are the fastest growing segment of new cars in Hawai'i. In 2023, the number of registered electric vehicles in Hawai'i increased more than 31%, compared to only a 1.5% increase in registered gasoline-powered vehicles.² There are currently over 29,000 electric vehicles registered in the state, a number that is expected to rise exponentially as more electric vehicles come to market, vehicle ranges increase, and the cost of electric vehicles decreases.

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 gasoline-powered vehicles. Recent studies predict electric vehicles could hit price parity with fossil-fuel powered cars in 2024³ and account

¹ "Get your building ready for electric vehicles: Ordinance 20-10 Compliance Guide", *City and County of Honolulu*, June 2021, (https://static1.squarespace.com/static/5e3885654a153a6ef84e6c9c/t/6139768b7192cb11bb99ce90/1631155852707/EV-Ready+Compliance+Guide+%26+FAQ_Combined+%28September+2021%29.pdf)

² "Monthly Energy Trends", *DBEDT*, December 2023 (https://dbedt.hawaii.gov/economic/files/2024/01/Energy_Trend.pdf/).

³ Slowik, Peter, et. al. "Assessment of Light-duty Electric Vehicle Costs and Consumer Benefits in the United States in the 2022-2035 Time Frame." *The International Council on Clean Transportation*. October 2022. (<https://theicct.org/publication/ev-cost-benefits-2035-oct22/>).

for two thirds of global car sales by 2030.⁴ Experts expect battery prices to continue to fall and automakers are increasing the number of models and volume of EVs in the next few years.

In part due to falling costs and increasing consumer demand, and in part due to government policies encouraging the transition towards EVs, nearly all of the world's leading automakers have announced aggressive strategies and investments in electric and plug-in hybrid vehicles over the past two years.⁵ **This bill helps to prepare Hawai'i for the future demand for electric vehicles in our state.**

The lack of EV charging is a significant barrier to adoption

The International Energy Agency found that “the availability of chargers emerged as one of the key factors for contributing to the market penetration of EVs.”⁶ Unlike gasoline car owners, 80% of EV drivers charge their cars at home or at work.⁷ Residents in multi-unit dwellings or condos, however, are often unable to find a place to charge, preventing them from receiving the benefits of EVs. This is a fundamental equity issue in Hawai'i: a large segment of residents in Hawai'i live in multi-family housing, in part because single-family homes are financially out of reach for many. Because Hawai'i's public charging network is still inadequate, workplace charging options are few and far between. **This bill helps to expand workplace charging options for employees that don't have the luxury of charging their EVs at home.**

Installing EV-ready wiring is cheaper pre-construction

The most challenging aspect of EV charger installation is the common lack of electrical capacity and distributed subpanels to support broad deployment of charging infrastructure. Studies have shown that installing EV infrastructure at the time of construction can be 91% less expensive than post-construction retrofits, and that per stall installation costs can be reduced through economies of scale, by deploying more stations at time of construction.⁸ Requiring that the power capacity and conduit be set up during construction would dramatically reduce retrofit costs at the time of installation, creating significant cost savings for taxpayers.

By choosing not to plan for EV charging infrastructure in new construction, the state would be forced to pay expensive retrofit costs to upgrade power capacity later when their fleets have changed to EVs and their employees are driving EVs—a transition that is already well

⁴ Carey, Nick. “As prices fall, two thirds of global car sales could be EVs by 2030, study says.” *Reuters*. September 4, 2023. (<https://www.reuters.com/technology/prices-fall-two-thirds-global-car-sales-could-be-evs-by-2030-study-2023-09-14/>)

⁵ Motavalli, Jim. “Every Automaker's EV Plans Through 2035 and Beyond.” *Forbes*, October 2021. (<https://www.forbes.com/wheels/news/automaker-ev-plans/>).

⁶ *Global EV Outlook 2017*, International Energy Agency, June 2017, <https://www.iea.org/reports/global-ev-outlook-2017>.

⁷ Ibid.

⁸ See <http://evchargingpros.com/wp-content/uploads/2017/04/City-of-SF-PEV-Infrastructure-Cost-Effectiveness-Report-2016.pdf>.

underway. **This bill is about future proofing our new state buildings and encouraging the state “lead by example” for workplace charging.**

Expanding EV charging infrastructure benefits all electricity users

Expanding access to EV charging is critical to unlock benefits for all electricity users, not just for EV drivers. **Enabling EV charging during the middle of the day allows more low-cost solar to be added to the grid and helps the overall energy system.** When large numbers of EVs—which are essentially batteries on wheels—are connected to the electricity grid simultaneously, they could be used to help manage the system through demand response, load shifting, and other grid services.

Conclusion

Blue Planet strongly supports requiring EV-ready new construction to reduce barriers to EV adoption and address the expansive and urgent challenge of reducing carbon emissions from ground transportation in Hawai'i. By recognizing that automakers are rapidly moving towards electric vehicles and that a lack of charging infrastructure remains a barrier to more widespread adoption of electric vehicles in Hawai'i, lawmakers should incentivize the installation of publicly available charging stations for state employees to meet future demand and reduce unnecessary financial costs to the state.

For these reasons, Blue Planet is in strong support of HB 1829.

Thank you for the opportunity to provide testimony.



SanHi

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 19, 2024

TO: Senator Angus L.K. McKelvey
Chair, Committee on Government Operations

Senator Lynn DeCoite
Chair, Committee on Energy, Economic Development, and Tourism

FROM: Tiffany Yajima

RE: **H.B. 1829, H.D.1 – Relating to Electric Vehicle Charging Infrastructure**
Hearing Date: Tuesday, March 19, 2024 at 3:01 p.m.
Conference Room: 225

Dear Chair McKelvey, Chair DeCoite, and Members of the Joint Committees:

The Alliance for Automotive Innovation (“Auto Innovators”) submits this testimony in **support** of H.B. 1829, H.D.1 as it pertains to electric vehicle readiness for new state building construction.

The Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – the association is committed to a cleaner, safer and smarter personal transportation future.

Charging infrastructure is a key component to any comprehensive vision and strategy for electric vehicles. By 2025, the auto industry will have invested more than \$330 billion to reach the goal of an electrified future. In addition, the auto industry is ramping up by delivering a new generation of ZEVs that includes 130 models for sale in the U.S. market by 2026, up from over 70 models today.

To facilitate the transition to a zero-emission transportation future, automakers support federal and state policies such as what is proposed in this bill to ensure that state buildings are equipped to support charging capabilities for electric vehicles. In addition, because many residents live in multi-unit dwellings that do not and possibly cannot support charging infrastructure, workplace charging in state facilities will provide a convenient, public option for EV charging that opens up the possibility of EV ownership to a broader audience. In addition, because the installation of EV chargers in new construction can be several times as cost

effective as retrofitting existing facilities to add chargers after the fact, this measure makes good financial sense.

For these reasons, Auto Innovators are in support of this measure and ask the committee to pass the bill. Thank you for the opportunity to submit this testimony.



Testimony of the Oahu Metropolitan Planning Organization

COMMITTEE ON GOVERNMENT OPERATIONS

COMMITTEE ON ENERGY, ECONOMIC DEVELOPMENT, AND TOURISM

Tuesday, March 19, 2024 at 3:01 PM

CR 225 & Videoconference

HB1829 HD1

Relating to Electric Vehicle Charging Infrastructure

Dear Chairs McKelvey and DeCoite, Vice Chairs Gabbard and Wakai, and Committee Members,

The Oahu Metropolitan Planning Organization (OahuMPO) **supports HB1829 HD1 with comments.**

HB1829 requires that in the planning of any new state building construction with parking provisions, a minimum of twenty-five percent of parking spaces must be prepared for electric vehicle (EV) charging. Additionally, the bill directs the Hawaii State Energy Office in collaboration with the Department of Accounting and General Services and Department of Transportation, to conduct a survey to pinpoint key state facilities for prioritization and retrofitting. The bill also sets forth an objective for the State to retrofit existing state facilities with adequate infrastructure for EV charging.

This measure is consistent with Goal #7 of the Oahu Regional Transportation Plan, which is to improve air quality and safeguard our environmental assets. Ground transportation emissions constitute a fifth of all carbon pollution on Oahu (Ola Oahu Resilience Strategy, 2019), and promoting the expansion of EVs and increasing charging infrastructure is important for the health and well-being of Oahu's residents and visitors. Transitioning our transportation system towards renewable fuels alongside developing a more robust EV charging network promises many benefits, including decreased greenhouse gas pollution, reduced dependence on imported crude oil, and improved ambient air quality and public health.

In addition to EVs, electric micromobility devices and electric bicycles have also become more popular in the State, bolstered by initiatives like the Electric Mobility Rebate Program by the Hawai'i Department of Transportation. With this growing demand, it is crucial to provide adequate charging infrastructure and parking standards to

accommodate these devices. Therefore, **electric micromobility devices and electric bicycles should also be considered in this bill, with the provision of secure parking and charging spaces included for such devices.**

The OahuMPO is the federally designated Metropolitan Planning Organization (MPO) on the island of Oahu responsible for carrying out a multimodal transportation planning process, including the development of a long-range (25-year horizon) metropolitan transportation plan, referred to as the Oahu Regional Transportation Plan (ORTP) that encourages and promotes a safe and efficient transportation system to serve the mobility needs of people and freight (including walkways, bicycles, and transit), fosters economic growth and development, and takes into consideration resiliency needs, while minimizing fuel consumption and air pollution ([23 CFR 450.300](#)).

Mahalo for the opportunity to provide testimony on this measure.



To: The Senate Committee on Government Operations (GVO)
and
The Senate Committee on Energy, Economic Development, and Tourism (EET)
From: Sherry Pollack, 350Hawaii.org
Date: Tuesday, March 19, 2024, 3:01pm

In support of HB1829 HD1

Aloha Chairs McKelvey and DeCoite, Vice Chairs Gabbard and Wakai, and members of the GVO and EET committees,

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **supports HB1829 HD1** that requires that if parking is to be included in any new state building construction, the design provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready. This measure further requires the Hawaii State Energy Office, in consultation with the Department of Accounting and General Services and Department of Transportation, conduct a survey and identify certain high-priority state facilities, establishing a goal of the State to retrofit state facilities to be electric vehicle charger-ready.

The State should lead by example by expanding workplace charging availability in facilities. Adequate public charging is critical for the democratization of transportation. Charge anxiety is a big a worry for EV-driving condo-dwellers, renters, and potential EV buyers. While there are many in our community who have the benefit of home EV charging, many of our residents live in apartments, condos, or rentals and don't have this convenience. For them to adopt electric cars, they must have access to reliable and ubiquitous public charging, including workplace charging.

Most importantly, electric vehicles are better for the environment and the economy, and are a critical component in our fight against the climate crisis. They are the future for Hawaii. A future we must begin now. Requiring that the design of new state facilities be electric vehicle charger-ready will save taxpayers from expensive retrofit costs later on as we fully transition to clean energy transportation.

To achieve Hawaii's sustainable transportation and climate goals, we must decarbonize ground transportation as soon as possible. This bill supports those efforts. Workplace charging is a very effective strategy to accelerate Hawaii towards our clean transportation future. Please support and pass this important measure.

Mahalo for the opportunity to testify.

Sherry Pollack
Co-Founder, 350Hawaii.org



To: The Honorable Chairs Angus McKelvey and Lynn DeCoite, the Honorable Vice Chairs Mike Gabbard and Glenn Wakai, and Members of the Committees on Government Operations and Energy, Economic Development and Tourism.

From: Climate Protectors Hawai'i (by Ted Bohlen)

Re: Hearing HB1829 HD1 RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Hearing: Tuesday March 19, 2024, 3:01 p.m., CR225

Aloha Chairs McKelvey and DeCoite, Vice Chairs Gabbard and Wakai, and Members of the Committees on Government Operations and Energy, Economic Development and Tourism!

The Climate Protectors Hawai'i seeks to educate and engage the local community in climate change action, to help Hawai'i show the world the way back to a safe and stable climate.

The Climate Protectors Hawai'i STRONGLY SUPPORTS HB1829 HD1, but proposes that the bill be amended to cover all parking spaces in new State buildings!

Hawaii needs to reduce greenhouse gas emissions from ground transportation in order to meet its target of sequestering more greenhouse gases than emitted as soon as practicable but no later than 2045. The transition to zero emission vehicles is needed to reduce greenhouse gas emissions from ground transportation. The lack of electric vehicle chargers in public is a major barrier to transitioning to zero emission vehicles.

This parking stall EV-ready requirement will have the State lead by example and **help reduce greenhouse gas emissions and climate warming**. Requiring that parking spaces in new State buildings be ready for electric vehicle charging **will save the State money** in comparison to installing chargers as retrofits and **provide a benefit to State employees**, especially those who live in multi-unit housing without reasonable home charger access. Putting EV chargers in workplaces **will benefit all electric utility customers** because daytime is off-peak for the utility grid and coincides with renewable electricity generation, whereas charging at home after work adds to peak power costs.

The Climate Protectors Hawai'i urges that the bill be **amended to make all parking spaces in new State buildings with parking facilities be ready for electric vehicle charging**, but 25% of spaces as provided in this bill would still be an improvement.

Please pass a bill that requires parking stalls in new State buildings that have parking be electric vehicle charger ready!

Mahalo!

Hawai'i Reef and Ocean Coalition and Climate Protectors Hawai'i (by Ted Bohlen)

Hawaii Electric Vehicle Association
 hawaiiev.org
 info@hawaiieva.com



March 18, 2024

SUPPORT FOR HB1829 HD1 - RELATING TO ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Dear Chairs McKelvey and DeCoite, Vice-Chairs Gabbard and Wakai, and Committee members,

Hawaii Electric Vehicle Association **SUPPORTS** HB1829 HD1, which *“Requires the design of all new state building construction where parking is to be included to provide that at least twenty-five per cent of parking stalls be electric vehicle charger-ready. Requires the Hawai’i State Energy Office, in consultation with the Department of Accounting and General Services and Department of Transportation, to conduct a survey and identify certain high-priority state facilities. Establishes a goal of the State to retrofit state facilities to be electric vehicle charger-ready.”*

If passed, HB 1829 HD1 would offer Hawaii several important benefits:

- Increase the number of publicly accessible EV charging stations and enable a more equitable adoption of electric vehicles.
- Enable vehicle charging during the workday when renewable energy production is high. Shifting EV charging demand to the daytime will help stabilize the grid.
- Inspire similar action in the private sector. The State has been leading by example with efforts to decarbonize its fleet and deploy renewable energy systems. This is yet another opportunity to increase the momentum of our clean energy transition.
- Save taxpayer money by *doing it right, the first time* – it will future-proof new infrastructure and avoid costly retrofits.

We, respectfully suggest the following amendments:

- Modify the requirement to allow **more than 25%** of parking stalls to be EV charger-ready.
- **Enable flexibility in the definition of ‘charger-ready’ infrastructure.** At a minimum, below-grade infrastructure, e.g., conduits, should be included in all stalls. Termination points need not have a minimum of 40 Amp, 208/240V circuits. Many of the stalls will have utility with Level 1 (110v) circuits. This offers ‘slow charging’ (around 5 miles per hour of charging), but this can help replenish 30-40 miles of

range during a workday. This can cover the commute miles for many users. Of course, some spaces should be set up for Level 2 charging.

Thank you for this opportunity to testify.

Sincerely,

A handwritten signature in black ink, appearing to read "Noel Morin".

Noel Morin
President
Hawaii EV Association

Hawaii EV Association is a grassroots non-profit group representing electric vehicle owners in Hawaii. Our mission is to accelerate the electrification of transportation through consumer education, policy advocacy, and electric vehicle charging infrastructure expansion. For more information, please visit hawaiiev.org.

Hawaii EV Board

Jennifer Lieu – Director
Nanette Vinton, Secretary, and Treasurer
Noel Morin, President
Rob Weltman – Director
Sonja Kass – Director
Tam Hunt - Director

Hawaii EV Clubs

Big Island EV Association
Kauai EV
Maui Nui EV
Tesla Hawaii Club

LATE

HB-1829-HD-1

Submitted on: 3/18/2024 3:29:56 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Steve Parsons	Testifying for Kauai Climate ACTION Coalition, Small Biz Owner	Support	Written Testimony Only

Comments:

Greetings TRUSTED Lawmakers,

KCAC supports this bill and any other bills that accelerate us off fossil fuels. EV's reduce fossil fuel pollution that currently is very much harming our people(FF pollution Kills over 9 mil people a year) and ecosystems that give us live. EVs create Good local green jobs and keeps more money in Hawaii VS. all the money for fuel going off island some of which ends up in the hands of bad players that want to do us harm. PLease act Boldly on this bill and vote YES!

Lastly, a word on speed of charging. Please understand that not all chargers are the same. The higher speed charger means less time taking up a spot and more cars that can charge. We suggest the EV ready, includes space for the correct sized wiring that will allow 48 Amps of power be available to each charger. That will require a 60 Amp breaker and the correct sized wires. If possible, have 5% of the spaces EV ready for Level 3 chargers that can charge tremendously faster than the 48 amps and again reduce time that the spaces are taken up.

Mahalo for all you do to fight climate Change!

Steve Parsons, Hanappe, Kauai-KCAC, Surfrider member, Hawaii EV member

HB-1829-HD-1

Submitted on: 3/16/2024 6:43:58 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Tadia Rice	Individual	Support	Written Testimony Only

Comments:

While there are many in our community that have the benefit of home EV charging, many of our residents live in apartments, condos, or rentals and don't have this convenience. For them to adopt electric cars, they must have access to reliable and ubiquitous public charging, including workplace charging.

The electrification of transportation is inevitable and accelerating. To facilitate this transition, we must focus our attention on the creation of a robust network of public charging stations. This will help residents who don't have access to home charging or the means to purchase long-range EVs to drive electric.

Requiring that the design of new state facilities be electric vehicle charger-ready will save taxpayers from expensive retrofit costs later on as we fully transition to clean energy transportation.

Mahalo.

HB-1829-HD-1

Submitted on: 3/16/2024 8:02:32 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Ruta Jordans	Individual	Support	Written Testimony Only

Comments:

When I first got my electric vehicle (EV) there was no way to charge it at home and no convenient place that I could charge it. As our culture changes and more and more people obtain EVs we need to provide charging stations everywhere to make it easier for EV owners to charge their cars, whether at the beach, visiting tourist locations, or at home. Please support HB 1829.

HB-1829-HD-1

Submitted on: 3/17/2024 7:31:28 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Michele Nihipali	Individual	Support	Written Testimony Only

Comments:

- The electrification of transportation is inevitable and accelerating. To facilitate this transition, we must focus our attention on the creation of a robust network of public charging stations. This will help residents who don't have access to home charging or the means to purchase long-range EVs to drive electric.

- Requiring that the design of new state facilities be electric vehicle charger-ready will save taxpayers from expensive retrofit costs later on as we fully transition to clean energy transportation.

Thank you for your consideration,

Michele Nihipali

54-074 A Kam Hwy.

Hauula, HI 96717

HB-1829-HD-1

Submitted on: 3/17/2024 11:35:56 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Nanea Lo	Individual	Support	Written Testimony Only

Comments:

Hello,

I am writing to express my strong support for HB1829 HD1, which mandates that new state facilities allocate 25% of parking stalls for electric vehicle (EV) charger-ready infrastructure. Additionally, this bill establishes a commendable goal for the State to retrofit existing facilities to accommodate EV charging capabilities.

The significance of this legislation cannot be overstated. It addresses a critical need within our community by acknowledging the disparities in access to EV charging infrastructure. While some individuals are fortunate enough to have the convenience of home charging, many residents, particularly those living in apartments, condos, or rental properties, do not have this luxury. Without accessible and reliable public charging options, these individuals are hindered from transitioning to electric vehicles, thereby impeding the progress towards a sustainable transportation system.

Furthermore, it is essential to recognize that the electrification of transportation is not merely a trend but an inevitable and rapidly advancing reality. By prioritizing the establishment of a robust network of public charging stations, we are not only facilitating the transition to electric vehicles but also ensuring equitable access to sustainable transportation options for all members of our community.

Moreover, by incorporating EV charger-ready infrastructure into the design of new state facilities, we are proactively mitigating future retrofitting expenses. This forward-thinking approach not only aligns with our commitment to environmental sustainability but also demonstrates prudent fiscal responsibility by saving taxpayers from potential costly endeavors as we transition towards clean energy transportation.

In conclusion, HB1829 HD1 represents a crucial step towards fostering a more sustainable and equitable transportation landscape in our state. I urge you to support this legislation for the betterment of our community, our environment, and our future generations.

me ke aloha ‘āina,
Nanea Lo, Mō‘ili‘ili, O‘ahu

HB-1829-HD-1

Submitted on: 3/17/2024 11:57:23 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
ANDREW ISODA	Individual	Support	Written Testimony Only

Comments:

The electrification of transportation is inevitable and accelerating. To facilitate this transition, we must focus our attention on the creation of a robust network of public charging stations. This will help residents who don't have access to home charging or the means to purchase long-range EVs to drive electric.

- Requiring that the design of new state facilities be electric vehicle charger-ready will save taxpayers from expensive retrofit costs later on as we fully transition to clean energy transportation.

HB-1829-HD-1

Submitted on: 3/17/2024 8:39:38 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Barbara Best	Individual	Support	Written Testimony Only

Comments:

Electrification of transportation is inevitable and accelerating. To facilitate this transition, we must focus our attention on the creation of a robust network of public charging stations. This will help residents like me, who don't have access to home charging or the means to purchase long-range EVs to drive electric.

Requiring that the design of new state facilities be electric vehicle charger-ready will save taxpayers from expensive retrofit costs later on as we fully transition to clean energy transportation.

Mahalo for supporting this bill.

Bobbie Best, Wailuku

HB-1829-HD-1

Submitted on: 3/17/2024 9:54:05 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Thomas Brandt	Individual	Support	Written Testimony Only

Comments:

Strong support!

While there are many in our community that have the benefit of home EV charging, many of our residents live in apartments, condos, or rentals and don't have this convenience. For them to adopt electric cars, they must have access to reliable and ubiquitous public charging, including workplace charging.

Mahalo!

HB-1829-HD-1

Submitted on: 3/18/2024 8:19:30 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Melissa Barker	Individual	Support	Written Testimony Only

Comments:

Honorable Members,

I am wwriting to respectfully ask that you support HB1829 HD1 which requires new state facilities to provide 25% of parking stalls as electric vehicle charger-ready.

Thank you for your attention and consideration.

Melissa Barker

Kapaa, HI

HB-1829-HD-1

Submitted on: 3/18/2024 8:58:47 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Daniela Escontrela	Individual	Support	Written Testimony Only

Comments:

I am in **STRONG SUPPORT** of this bill. The electrification of transportation is inevitable and accelerating. To facilitate this transition, we must focus our attention on the creation of a robust network of public charging stations. This will help residents who don't have access to home charging or the means to purchase long-range EVs to drive electric.

HB-1829-HD-1

Submitted on: 3/18/2024 9:01:43 AM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Maureen Brock	Individual	Support	Written Testimony Only

Comments:

I support this bill. While there are many in our community that have the benefit of home EV charging, many of our residents live in apartments, condos, or rentals and don't have this convenience. For them to adopt electric cars, they must have access to reliable and ubiquitous public charging, including workplace charging.

HB-1829-HD-1

Submitted on: 3/13/2024 10:14:46 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Shelley Oates-Wilding	Individual	Oppose	Written Testimony Only

Comments:

I hereby testify against the Bill 1829 HD1 on the following grounds.

This bill is not benefiting the majority of our community BUT utilizing the funds of the majority of our community.

Electric cars are only affordable and accessible to those able to afford a house with a parking space and electricity supply. When you force our majority to have electric cars you reduce the quality of life for the majority and continue to increase the wealth and services provided only for the wealthy.

We the people live in apartments or don't have funds for electric cars and with limited street parking we need the government to listen to the people of our islands. Electric cars in Hawai'i are useless for the majority.

Better sewage, roads, schools, youth sports facilities and safe ocean access are where you should be focusing "our" funds.

The fact behind this governments push for electric cars is a money transfer from the majority to the 5 % of wealthy with Hawai'i the most expensive state in the USA to live and why?

HB-1829-HD-1

Submitted on: 3/16/2024 1:59:33 PM

Testimony for GVO on 3/19/2024 3:01:00 PM

Submitted By	Organization	Testifier Position	Testify
Gerard Silva	Individual	Oppose	Written Testimony Only

Comments:

This is a Big Wast of time and Money . GET THIS THROUGH YOR EMPTY HEADS
NOBODY WANTS THEM PERIOD. No ELECTRIC CARS OR TRUCKS Pireod. WE THE
PEOPLE HAVE SPOCKEN!!!!!!!!!!!!!!!!!!!!!!