HAWAII STATE ENERGY OFFICE
STATE OF HAWAII

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

235 South Beretania Street, 5th Floor, Honolulu, Hawaii 96813 Telephone: (808) 587-3807
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804 Web: energy.hawaii.gov

Testimony of
SCOTT J. GLENN, Chief Energy Officer

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

Thursday, March 17, 2022
Time 9:00 AM
State Capitol, Conference Room 325 & Videoconference

SUPPORT
SB 2570 SD2
RELATING TO ZERO EMISSION VEHICLE FUELING REBATES.

Chair Lowen, Vice Chair Marten, and Members of the Committee, the Hawaii State Energy Office (HSEO) supports SB 2570 SD2, which adds the installation and upgrade of hydrogen refueling stations to the Electric Vehicle Charging System Rebate Program, establishes the rebate amount for the installation or upgrade of a hydrogen refueling system at $200,000, limits the rebate to hydrogen refueling systems that do not store and dispense hydrogen fuel produced using fossil fuels, renames Hawaii's Electric Vehicle Charging System Rebate Program to the Zero-Emission Vehicle (ZEV) Infrastructure Rebate Program, and increases the spending cap of the ZEV Infrastructure Rebate Program.

HSEO's comments are guided by its mission to promote energy efficiency, renewable energy, and clean transportation to help achieve a resilient, clean energy, decarbonized economy. A significant barrier to the adoption of zero emission vehicles is access to fueling stations, including hydrogen vehicles which have significant potential with medium- and heavy-duty vehicles. Creating rebates for hydrogen refueling stations supports the State's energy policy objectives to achieve a net-negative carbon economy as soon as practicable but no later than 2045. Incentivizing a broader set of zero emission transportation technologies provides greater flexibility in the decarbonization of ground transportation.

HSEO provides the following comments concerning the amendment limiting the rebate to hydrogen refueling systems that do not store and dispense hydrogen fuel that is produced using fossil fuels. HSEO supports incentivizing the production of renewable hydrogen but notes that there could be complications in implementing a requirement that stations receiving incentives by fueled solely by renewable produced hydrogen. The requirement could require ongoing compliance reporting and enforcement mechanisms which could frustrate implementation and increase administration costs. A remedy requiring the hydrogen station be collocated with renewable energy could create constraints in siting hydrogen stations given the considerable land required to provide enough renewable energy to supply a hydrogen station at scale. HSEO is willing to work with the Legislature and stakeholders on this issue to discuss potential solutions.

Thank you for the opportunity to testify.

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

TO THE
HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION

March 17, 2022
9:00 a.m.

Chair Lowen and Members of the Committee:

MEASURE: S.B. No. 2570, SD2
TITLE: RELATING TO ZERO EMISSION VEHICLE FUELING REBATES.

DESCRIPTION: Adds the installation and upgrade of hydrogen refueling stations to the Electric Vehicle Charging System Rebate Program. Establishes the rebate amount for the installation or upgrade of a hydrogen refueling station at $200,000. Limits the rebate to hydrogen refueling stations that do not store and dispense hydrogen fuel produced using fossil fuels. Renames Hawaii's Electric Vehicle Charging System Rebate Program to the Zero-Emission Vehicle Infrastructure Rebate Program. Increases the spending cap of the Zero-Emission Vehicle Infrastructure Rebate Program. Effective 7/1/2050. (SD2)

POSITION:

The Public Utilities Commission ("Commission") offers the following comments for consideration.

COMMENTS:

The Commission appreciates the intent of this measure to facilitate expanded availability of zero emission vehicle infrastructure.

Since 2019, the Commission has managed the Electric Vehicle Charging System ("EVCS") Rebate Program in consultation with electric vehicle stakeholders and in cooperation with the program's administrator, Hawaii Energy. The program has been met with a robust response and has efficiently allocated funds to expand public charging infrastructure in the state. According to Hawaii Energy, the program to date has issued rebates for 43 new Level 2 EVCS installations, 62 Level 2 retrofits, 1 DC fast charger

("DCFC") installation, and 1 DCFC retrofit. The program also has 30 projects in the pipeline, totaling nearly $200,000 in rebates.

The Commission notes that the current funding level would likely be insufficient to support both electric and hydrogen system incentives, primarily due to the cost of hydrogen refueling stations and, thus, the size of a rebate that could adequately encourage investment in these stations. For context, a recent study by the U.S. Department of Energy found that an average hydrogen station requires approximately $1.9 million in capital cost.[1] Hawaii Energy estimates that a low-end rebate for this type of system would equate to $200,000.

Therefore, the Commission notes that a substantial funding increase would likely be necessary to effectively achieve the intent of this measure, in addition to removing the spending cap outlined in Section 269-72, subsection (d), HRS. Given the cost of hydrogen refueling stations and noting that the program is currently operated on a first-come, first-served basis, it is possible that a very small number of hydrogen refueling station rebates could consume the bulk of the available funds under the current spending limit.

The Commission acknowledges the amendments made by the Committee on Energy, Economic Development, and Tourism, which, among other changes, specify the rebate amount for hydrogen refueling systems and increase the spending cap of the rebate program from $500,000 to $700,000. The Commission notes that under this spending cap and with a $200,000 rebate amount for hydrogen systems, the entirety of program funds could still be consumed by a small number of hydrogen system rebates.

For these reasons, the Commission is concerned that, without sufficient funding and under the constraints of this spending cap, this measure could unintentionally stifle the expansion of electric vehicle charging infrastructure that can be achieved through the existing rebate program.

Thank you for the opportunity to testify on this measure.

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[1] U.S. Department of Energy (2021). *Hydrogen Fueling Stations Cost.* https://www.hydrogen.energy.gov/pdfs/21002-hydrogen-fueling-station-cost.pdf

SB-2570-SD-2
Submitted on: 3/14/2022 8:58:52 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
laurel brier	Kauai women's caucus	Oppose	Written Testimony Only

Comments:

Let's focus on what is already gaining traction - the electric vehicle and not dilute our resources with a technology (hydrogen) that is not ready for commercial use at this time

KauaiEV
Kauai Electric Vehicle Association
302 Makani Rd, Kapaa, HI 96746
808-652-0591

2022/03/15

Strong OPPOSITION to SB2570-SD2

Dear Chair Lowen, Vice Chair Marten, and EEP Committee members,

I am writing on behalf of KauaiEV, a grassroots organization with over 100 members on Kauai. Our members are electric vehicle drivers and we believe that EVs are the personal transportation of the future. We are in **strong OPPOSITION to SB2570-SD2.**

Bringing liquid hydrogen to Hawaii will probably be very expensive, at the moment there is only one prototype ship that can transport it.

Hydrogen fueling stations are very expensive, so is hydrogen. In places with cheap electricity it might be possible to produce green hydrogen between $3 and $6 per kilogram. In Hawaii, electricity is 2-to-3 times more expensive, and so hydrogen would be uneconomical.

Fuel cells are less efficient, and lots of electricity is wasted producing hydrogen. The battery electric Nissan Leaf gets 123 miles per gallon equivalent, and the hydrogen-powered Toyota Mirai gets 79 miles per gallon equivalent; this does not include the wasted energy when producing green hydrogen. All in all battery electric vehicles have 3 times better fuel efficiency.

Fuel cell vehicles are more expensive than comparable BEVs and over 95% of all hydrogen worldwide is being produced from fracked methane or coal. Most of the continued support for hydrogen (including for green hydrogen) stems from the fossil fuel industry. As of 2021 only 2 manufacturers offer hydrogen cars: the **Toyota Mirai** and the Hyundai Nexo. Honda stopped manufacturing the Clarity Fuel Cell in August 2021.

The Frauenhofer ISI, one of the leading innovation research institutions in Europe and leading one in Germany has published a study a month ago in the publication Nature: ”Hydrogen technology is unlikely to play a major role in sustainable road transport “ The subtitle is “Technical and economic developments in battery and fast-charging technologies could soon make fuel cell electric vehicles, which run on hydrogen, superfluous in road transport.“ and it explains that when compared to battery-electric hydrogen is inefficient and uneconomical in ground transport, and that more green hydrogen than can be produced until 2030 is needed for maritime transport, aviation and production of steel.

KauaiEV
Kauai Electric Vehicle Association
302 Makani Rd, Kapaa, HI 96746
808-652-0591

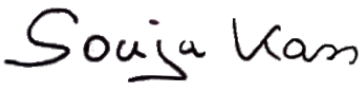
I'd like to include 2 articles on the danger - hydrogen is very energy dense and accidents happen.

Bay Area experiences hydrogen shortage after explosion

Hydrogen Fueling Station Explodes: Toyota & Hyundai Halt Fuel Cell Car Sales

Please oppose SB2570-SD1.

Mahalo for your consideration,



Sonja Kass, President KauaiEV

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

March 14, 2022

OPPOSITION TO SB2570 SD2 RELATING TO ZERO EMISSION VEHICLE FUEL REBATES

Dear Chair Lowen, Vice-Chair Marten, and members of the Energy and Environmental Protection Committee,

Hawaii Electric Vehicle Association (Hawaii EV) opposes SB2570 SD2 as it has a great potential to impede the expansion of electric vehicle charging infrastructure. We recommend deferring this measure.

Hawaii EV recognizes that hydrogen fuel cell vehicles (FCEVs) are electric cars and have zero tailpipe emissions. However, for the following reasons, we continue to focus our efforts on accelerating the adoption of battery electric vehicles:

- Hydrogen/FCEVs are inherently inefficient. **Considering well-to-wheel efficiency, these vehicles are only around 22% efficient** (about three times less efficient than battery electric vehicles, a truly massive difference). We cannot afford to waste energy and need to opt for energy-efficient solutions.
- The hydrogen ground transportation ecosystem is costly. **A hydrogen fueling station can cost $2,000,000.** Level 2 and DC Fast Chargers cost around $10,000 to $150,000, respectively.
- The market is churning out ever-increasingly diverse, affordable, longer-range EVs in response to consumer demand. We cannot say the same for FCEVs. **Global FCEV sales continue to be a small fraction of battery electric vehicles.** This has implications in servicing, fueling, and supplying FCEVs.
- There are obvious challenges associated with the creation of non-fossil fuel-based hydrogen. **Most of the global hydrogen is produced from coal or gas. To be meaningful in Hawaii, we first need to meet our need for affordable electricity and transportation and do so with an abundance of firm renewable power**. (We acknowledge that SD2 *"Limits the rebate to hydrogen refueling stations that do not store and dispense hydrogen fuel produced using fossil fuels…".*)

SB2570 SD2 can potentially impact the expansion of public charging infrastructure negatively. As stipulated in the measure, ONE hydrogen fueling station rebate is as much as $200,000.

> *(A) $4,500 for the installation of an alternating current Level 2 station with two or more ports; [~~and~~]*
> *(B) $35,000 for the installation of a direct current fast charging system; and*
> *(C) $200,000 for the installation of a hydrogen refueling station; provided that it does not store or dispense hydrogen fuel that is produced using fossil fuels; and*

While SB2570 SD2 also includes an increase of the annual rebate program cap to $700,000 (from $500,000), it's very apparent that one hydrogen fueling station rebate will be costly and consequential to the expansion of EV chargers. **A $200,000 hydrogen fueling station rebate will support the installation of over 40 Level 2 charging stations or 5 DC Fast Chargers.**

Public EV charging is necessary for the adoption of clean transportation and the democratization of the electric car. Public EV chargers are necessary for the equitable enjoyment of the cost savings and clean air benefits that electric vehicles provide.

It is understandable that we need to create the opportunity for all possible renewable energy and transportation options and that there are quarters that seek to see how we might leverage hydrogen for transportation. If this is, ultimately, deemed necessary, we ask that a separate rebate fund be established for FCEV fueling stations.

Thank you for this opportunity to testify.

Sincerely,

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.

SB-2570-SD-2
Submitted on: 3/14/2022 11:45:15 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ted Bohlen	Climate Protectors Hawai‘i	Oppose	Written Testimony Only

Comments:

To: The Honorable Nicole Lowen, Chair, the Honorable Lisa Marten, Vice Chair, and Members of the House Committee on Energy and Environmental Protection

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

Re: Hearing SB2570 SD2 RELATING TO ZERO EMISSION VEHICLE FUELING REBATES.

Thursday March 17, 2022, 9:00 a.m., by videoconference

Aloha Chair Lowen, Vice Chair Marten, and Members of the House Committee on Energy and Environmental Protection!

The Climate Protectors Hawai‘i is a group focused on reversing the climate crisis and encouraging Hawai‘i to lead the world towards a safe and sustainable climate and future. Though we appreciate the intent, the Climate Protectors Hawai‘i **OPPOSES SB2570 SD2** because the bill is premature.

The Climate Protectors Hawai‘i appreciates that the bill has been amended to recognize that hydrogen produced from fossil fuels, as almost all of it is currently, is not a zero emission fuel. A **similar amendment should be made to exclude hydrogen produced from wood, which also is not a zero emission fuel.**

While the technology continues to improve, **there is still reason to doubt hydrogen's economic feasibility for fueling ground transportation here in Hawai‘i. Hydrogen fueling stations are far more expensive than electric vehicle charging stations. Studies and strategic plans, such as those listed in SB2283 SD1, may help to better inform whether and how best the State can support the implementation of hydrogen as a renewable energy source.**

The Climate Protectors Hawai‘i OPPOSES the bill because, without more study, it would be best not to take funding away from the effective Hawai‘i Electric Vehicle Charging System Rebate Program in order to support much more expensive hydrogen station rebates.

Please defer this bill!

Mahalo!

Climate Protectors Hawai‘i (by Ted Bohlen)

SB-2570-SD-2
Submitted on: 3/15/2022 7:38:02 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Rob Weltman	Maui Nui EV Association	Oppose	Written Testimony Only

Comments:

Hydrogen may in the future become a useful component of transportation with renewable energy, but at this time it is very expensive and impractical compared to the widely adopted battery-electric vehicles. It would be unwise to divert funds from expanding the charging infrastructure for battery EVs towards the much more expensive hydrogen refueling stations.

SERVCO

SERVCO PACIFIC INC.
2850 PUKOLOA ST. STE. 300
HONOLULU, HI 96819 USA

O. 808.564.1300
F. 808.564.1393

SERVCO.COM

Representative Nicole Lowen, Chair
Representative Lisa Marten, Vice Chair
Committee on Energy & Environmental Protection

RE: **SB 2570 SD2 - Relating to Zero Emission Vehicle Fueling Rebates – In Support**
March 17, 2022; 9:00 A.M.

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

Servco is in support of SB 2570 SD2, which adds the installation and upgrade of hydrogen refueling stations to the Electric Vehicle Charging System Rebate Program, establishes the rebate amount for the installation or upgrade of a hydrogen refueling system at $200,000, limits the rebate to hydrogen refueling systems that do not store and dispense hydrogen fuel produced using fossil fuels, renames Hawaii's Electric Vehicle Charging System Rebate Program to the Zero-Emission Vehicle (ZEV) Infrastructure Rebate Program, and increases the spending cap of the ZEV Infrastructure Rebate Program.

The demand for alternative forms of refueling vehicles will continue to grow in support of Hawaii's 100% energy goals. However, Servco respectfully requests that hydrogen refueling stations and fuel not be limited to renewable sources only but should be produced using diverse options, including fossil fuels. The reality is electric vehicle charging stations are ultimately sourced from fossil fuels and, as such, parity should be imposed as the state pursues more refueling choices for consumers.

Servco has invested millions of dollars into hydrogen production facilities and will continue to invest as we believe in its future. The long-term export potential of hydrogen across the globe is not only a revenue generating opportunity but also yields environmental benefits. We appreciate the efforts made by the State Legislature to make improvements to the program in pursuit of our clean energy mandate.

Thank you for the opportunity to provide comments in support.

Peter Dames
Executive Vice President

Environmental Caucus of The Democratic Party of Hawai‘i

Energy & Climate Action Committee

Thursday, March 17, 2022, 9:00 am

House Committee on Energy and Environmental Protection

SENATE BILL 2570 – RELATING TO ZERO EMISSION VEHICLE FUELING REBATES

Position: Oppose

Me ke Aloha, Chair Lowen, Vice-Chair Marten, and Members of the Committee on Energy and Environmental Protection:

The Energy & Climate Action Committee initially supported this measure in the Senate, with the hope that hydrogen energy could be a productive part of the energy mix for Hawaii. The prospect of hydrogen cells at that time had not been fully explored, nor has it been since the January hearing, but more information confirms that the likely source of power to produce hydrogen fuel will be burning biomass and emitting impermissible greenhouse gases.

The Committee has come to believe that our emissions of greenhouse gases are inexcusable in view of repeated scientific papers and warnings about the rate of emissions around the planet not only continuing but actually increasing. With a very short time frame to reduce atmospheric greenhouse gases before losing control of our fate, we feel it is preferable to promote efficiency and conservation rather than to permit convenience and enable profits from our demise.

SB2570 proposes to expand the options of vehicle recharging stations (what we have long called “gas stations”) to serve not only the prospective proliferation of electric vehicles but also those requiring hydrogen fuel – assuming there are hydrogen fuels available from local sources, being pursued under a separate bill. We fully support expanding the network of electric recharging stations, but must oppose any bill that enables increasing our peril from climate disaster.

We recognize that there are legislators who insist on the false promise of hydrogen and biomass energy production, in the mistaken belief that a transition from fossil fuels can include these “firm” power sources. This is a horrendous misunderstanding, or a deliberate dismissal of objections made by scientists in response to the dishonest definition of biomass as a “renewable” source, a political not scientific decision at the Kyoto Protocols.

An amendment to delete the possibility of hydrogen stations would change our position to support.

Mahalo for the opportunity to address this matter.

Charley Ice & Ted Bohlen, Co-Chairs, Energy and Climate Action Committee
Environmental Caucus of the Democratic Party

Testimony in Opposition to SB2570

Dear Chair Lowen, Vice-Chair Marten, and members of the Energy and Environmental Protection Committee,

I am writing on behalf of Kauai Climate Action Coalition, a large group of Kauai residents concerned about the climate crisis and recognizing the need for urgent action to reduce fossil fuel emissions. We oppose SB2570 since it has the potential to impede the expansion of electric vehicle charging infrastructure. We recommend deferring this measure.

Although hydrogen fuel cell vehicles (FCEVs) are electric cars and have zero tailpipe emissions, we must continue to focus our efforts on accelerating the adoption of battery electric vehicles.

- Hydrogen/FCEVs are inherently inefficient

- **A hydrogen fueling station can cost $2,000,000.** Level 2 and DC Fast Chargers cost around $10,000 to $150,000, respectively.

- The market is churning out ever-increasingly diverse, affordable, longer-range EVs in response to consumer demand. We cannot say the same for FCEVs.

- **Most of the global hydrogen is produced from coal or gas.**

SB2570 SD2 potentially impact the expansion of public charging infrastructure negatively.

While SB2570 SD2 also includes an increase of the annual rebate program cap to $700,000 (from $500,000), it's very apparent that one hydrogen fueling station rebate will be costly and consequential to the expansion of EV chargers. **A $200,000 hydrogen fueling station rebate will support the installation of over 40 Level 2 charging stations or 5 DC Fast Chargers.**

Public EV charging is necessary for the adoption of clean transportation and the democratization of the electric car. Public EV chargers are necessary for the equitable enjoyment of the cost savings and clean air benefits that electric vehicles provide.

Please vote no on SB2570. Mahalo!

Helen A Cox, Chair

Kauai Climate Action Coalition

SB-2570-SD-2
Submitted on: 3/15/2022 9:13:18 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Sylvia Dolena	Aloha Animal Advocates and Pele Lani Farm LLC	Oppose	Written Testimony Only

Comments:

OPPOSE SB2570

WHY IS THIS A BAD IDEA? This bill will negatively impact funding of the Commercial EV Charger Rebate Program. Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more - a couple of these stations will use up most of the annual rebate fund for EV chargers.

Email: communications@ulupono.com

HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Thursday, March 17, 2022 — 9:00 a.m.

Ulupono Initiative supports the intent of SB 2570 SD 2, Relating to Zero-Emission Vehicle Fueling Rebates.

Dear Chair Lowen and Members of the Committee:

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 and clean transportation; and better management of freshwater and waste.

Ulupono supports the intent of SB 2570 SD 2, which adds the installation and upgrade of hydrogen refueling stations to the Electric Vehicle Charging System Rebate Program; establishes the rebate amount for the installation or upgrade of a hydrogen refueling system at $200,000; limits the rebate to hydrogen refueling systems that do not store and dispense hydrogen fuel produced using fossil fuels; renames Hawai'i's Electric Vehicle Charging System Rebate Program to the Zero-Emission Vehicle (ZEV) Infrastructure Rebate Program; and, increases the spending cap of the ZEV Infrastructure Rebate Program.

Ulupono supports clean, alternative fuel transportation as ground transportation makes up a significant portion of Hawai'i's reliance on imported oil. Hydrogen can potentially play a critical role as a renewable energy source to combat ground transportation's greenhouse gas emissions, however, we believe that this measure may be a bit premature. While hydrogen's technology continues to improve, there is still some question regarding its current economic feasibility here in Hawai'i. Studies and strategic plans, such as those listed in SB 2283, may help to better inform how best the State can support the implementation of hydrogen as a renewable energy source. For now, we believe that it may be best to maintain the current Hawai'i Electric Vehicle Charging System Rebate Program. State investments into EV charging infrastructure directly supports a blossoming EV market for Hawai'i that will only continue to grow as vehicle manufacturers across the world make bold, clean transportation commitments.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate

this committee's efforts to look at policies that support the continued implementation of renewable energy resources throughout the islands.

Thank you for this opportunity to testify.

Respectfully,

Micah Munekata
Director of Government Affairs

To: The House Committee on Energy and Environmental Protection
From: Sherry Pollack, 350Hawaii.org
Date: Thursday, March 17, 2022, 9am

In strong opposition to SB2570 SD2

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

I am Co-Founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org **strongly opposes SB2570 SD2** that adds the installation and upgrade of hydrogen refueling stations to the Electric Vehicle (EV) Charging System Rebate Program.

The development of the EV system rebate program to incentivize infrastructure build-out was based on market conditions and interest. It is well established that a significant barrier to the adoption of zero emission vehicles is access to charging stations. With the demand for EVs growing, we need to prepare for this emerging need in our communities. It must be noted, however, that fuel-cell electric vehicles (hydrogen cars) have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure. Considering the proposed annual commercial charging station rebate cap of $700,000 (from $500,000), a $200,000 hydrogen fueling station rebate will quickly cannibalize the funds required for public EV charging.

We must accelerate our transition away from fossil fuels to mitigate the effects of the climate crisis. Expanding our public EV charging infrastructure aggressively is a very effective means to do that. Ensuring the integrity of the charging system rebate program helps address a key barrier to EV adoption and enable more equitable access to clean transportation.

Mahalo for the opportunity to testify.

Sherry Pollack
Co-Founder, 350Hawaii.org

Testimony to
The Committee on Energy & Environmental Protection

Thursday, March 17, 2022
9:00 AM
VIA Video Conference
Conference Room 325, Hawaii State Capitol

SB 2570 SD2

Chair Lowen, Vice Chair Marten, and members of the committee,

Hawaii Gas **supports SB 2570 SD2,** which adds the installation and upgrade of hydrogen refueling stations to the electric vehicle charging system rebate program, renames Hawaii's Electric Vehicle Charging System, and relates to zero emission vehicle fueling rebates.

Hawaii Gas is a national leader in the transmission and distribution use of hydrogen in our clean energy mix, and it is our vision to continue to lead the gas industry in its ability to safely, affordably, and reliably increase the amount of this zero-emission fuel source in our utility pipeline and as a reliable zero-emission fuel source for vehicles.

Beyond its use in our clean energy mix, hydrogen is seen as a reliable, long-ranging zero-emission fuel source for commercial and personal vehicles. Clean energy fuel is an essential element of the zero emission vehicle future, which is critical to meeting our 2045 clean energy goals. Hydrogen fuel cells for vehicles are a reality today, with Toyota offering a vehicle in Hawaii as an alternative to fossil fuel dependent vehicles. In fact, the government of Japan has pledged to increase the current number of fueling stations from 150 to 1,000 while also boosting the domestic supply of hydrogen to as much as 3 million tons by 2030, with the goal of expanding this to 20 million tons by 2050.

The promise of hydrogen as a fuel for alternative zero emission fuel vehicles brings together all stakeholders in this arena, who agree that a sufficient runway is needed to make this valuable fuel source widely available to consumers.

We agree that the inclusion in statute that zero-emission vehicles (ZEV) is vital and a crucial technology of the future and that hydrogen refueling stations are essential. This bill provides for new technology, including hydrogen, as we march towards our emissions mandate of 2045.

We urge the committees to pass SB 2570 SD1.

Thank you for the opportunity to testify.

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Hawai'i Energy

45 North King Street, Suite 500 • Honolulu, Hawai'i 96817 • HawaiiEnergy.com • P: (808) 839-8880 • F: (808) 441-6068

Before the House Committee on Energy & Environmental Protection
Thursday, March 17, 2022 at 9:00am

Testimony on SB2570 SD2 relating to Zero Emission Vehicle Fueling Rebates.

Chair Lowen, Vice Chair Marten, and Members of the Committee:

Thank you for the opportunity to provide comments on Senate Bill 2570 SD2.

Hawai'i Energy works to empower island families and businesses on behalf of the Hawai'i Public Utilities Commission (PUC) to make smart energy choices to reduce energy consumption, save money, and pursue a 100% clean energy future. Energy efficiency is the cheapest option to help us achieve our 100% clean energy goal by eliminating waste and being more efficient.

Under the Hawai'i Public Utilities Commission's (PUC) direction, Hawai'i Energy has been managing the electric vehicle charging station (EVCS) rebate program that was initially funded in 2019 by the State Legislature (Act 142), and in 2021, provided continued funding with the passage of House Bill 1142 (Act 75).

To date, the rebates have only been distributed to qualified charging stations that power full-battery electric and/or plug-in hybrid vehicles. The rebates are distributed on a first-come, first served basis, upon confirmation that the project has been installed and is operational.

As of February 2022, the program has issued rebates for the following types of EVCS:

- Level 2 – 47 new installations and 66 retrofits
- DC Fast Chargers – 1 new installation and 1 retrofit

Also as of February 2022, the rebate program's funding was as follows:

Act 142 Funding - $400,000
Act 75 Funding - $100,000 (bridge funding provided on July 1, 2022)
TOTAL - $500,000

Total rebates paid – $472,500
Total funding remaining - $27,500
Projects in pipeline (based on applications received) - $190,508

Since our February 2022 program funding update to the PUC, we have processed additional rebates. Thus, the rebate's allotted budget has been expended. Hawai'i Energy is assembling a waitlist of completed projects and once additional funding is made available, we will continue distribution of rebates to those customers.

We appreciate the efforts made by the State Legislature to make improvements to the rebate program in pursuit of our 100% clean energy mandate. Thank you for the opportunity to testify on Senate Bill 2570 SD2.

Sincerely,
Brian Kealoha
Executive Director
Hawai‘i Energy

SanHI
GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 15, 2022

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

FROM: Tiffany Yajima

RE: **S.B. 2570, S.D.2 – Relating to Zero Emission Vehicle Fueling Rebates**
Hearing Date: Thursday, March 17, 2022 at 9:00 a.m.
Conference Room: 325

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

On behalf of the Alliance for Automotive Innovation ("Auto Innovators") we submit this testimony **supporting the intent** of S.B. 2570, SD2. This measure renames Hawaii's Electric Vehicle Charging System Rebate Program to Zero-Emission Vehicle Fueling System Rebate Program and incentivizes the installation and upgrade of hydrogen fueling stations in the state.

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

This measure is intended to incentivize the build-out of statewide infrastructure to support both electric vehicles and hydrogen vehicles. The automotive industry has made and continues to make a significant investment in hydrogen vehicles and the development of hydrogen fueling infrastructure. At the same time, we also recognize the importance of public, private and government support for infrastructure projects like hydrogen fueling stations. This measure would support the growing number of alternative fuel vehicles on the road today through a broader network of charging infrastructure where these vehicles can refuel.

We note that this measure was amended in the SD1 so that hydrogen fueling stations that store and dispense non-renewable hydrogen are ineligible for the rebate. We respectfully ask the committee to remove this limitation. Hydrogen is a cleaner fuel and important technology pathway that can help the state achieve carbon reductions while growing the state's electric vehicle market.

Thank you for the opportunity to submit this testimony.

First Hawaiian Center T 808-539-0400
999 Bishop Street, Suite 1400 F 808-533-4945
Honolulu, HI 96813 governmentaffairs@awlaw.com

SB-2570-SD-2
Submitted on: 3/16/2022 4:17:50 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Steve Parsons	Kauai Climate Action Coalition	Support	Written Testimony Only

Comments:

Aloha Trusted Lawmakers!

PLEASE vote Yes on this. We need to accelerate off fossil Fuels and support EV drivers that Don't have garages AND cleaner air for all. This also helps affordability as transportation is the 2nd highest expense for folks after housing.

EV's Fight Climate Change and Bad Players like Putin, Better Air, Help Reefs (EV's don't add to Ocean Acidification like Fossil Fuel Cars do!)

Steve Parsons, Wailua, Kauai

Kauai Climate Action Coalition, Surfrider Foundation member.

SB-2570-SD-2
Submitted on: 3/14/2022 5:41:54 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

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

Comments:

This is not NEED!!

SB-2570-SD-2
Submitted on: 3/15/2022 6:31:48 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Stephanie Hall Morin	Individual	Oppose	Written Testimony Only

Comments:

Aloha,

The State of Hawaii isn't ready for hydrogen. We don't have the vehicles, nor are many even in the pipeline. While I do support green energy, the low-hanging fruit is in electric vehicles. Let's not cannibalize our rebate funds for chargers with offers for hydrogen stations. Let's set up separate funds for that as it becomes reality. Mahalo

SB-2570-SD-2
Submitted on: 3/15/2022 6:39:18 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Lorn Hoku Douglas	Individual	Oppose	Written Testimony Only

Comments:

Hydrogen transportation is not an efficient means for the State to meet the goals clean transportation. Its too expensive and its clear that Electric Vehicles are the future.

SB-2570-SD-2
Submitted on: 3/15/2022 7:12:24 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Gary Miller	Individual	Oppose	Written Testimony Only

Comments:

I oppose this bill as it will divert funds to support an unproven technology (Hydrogen fueling) with questionable long-term value to the community since Hydrogen-powered vehicles will not be available in meaningful amounts...ever!

Mahalo,

Gary Miller

SB-2570-SD-2
Submitted on: 3/15/2022 8:34:36 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
John NAYLOR	Individual	Oppose	Written Testimony Only

Comments:

Aloha

Let's not use a huge portion of our dollars fo a couple of hydrogen stations....We need More EV's for the average resident / VOTER . Hope I got your attention!

Look up,

JN Makawao

SB-2570-SD-2
Submitted on: 3/15/2022 8:40:22 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
C. Vierra	Individual	Oppose	Written Testimony Only

Comments:

Hydrogen fuel-cell vehicles are not dominent in the auto industry and especially here in HI. There are over 18,000 registered EVs to 37 hydrogen vehicles in HI. I oppose this bill.

SB-2570-SD-2
Submitted on: 3/15/2022 9:04:57 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Keith Neal	Individual	Oppose	Written Testimony Only

Comments:

I oppose altering the Hawaii's Electric Vehicle Charging System Rebate Program to include Hydrogen.

The state of Hawaii is already behind in providing Electric Vehicle Charging Stations. There are many vehicle manufactures that will soon offer hundreds of Electric Vehicle models. Hawaii must focus on installing EV charging infrastructure for residents and visitors alike.

Furthermore, the vast majority of Hydrogen production is produced with fossil fuels. Hydrogen as a transportation fuel is neither clean or affordable.

Respectful submitted,

Keith Neal

SB-2570-SD-2
Submitted on: 3/15/2022 9:12:13 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Roberta Baker	Individual	Oppose	Written Testimony Only

Comments:

This bill adds hydrogen fueling stations to the EV Charger rebate program. **Toyota has already figured out that hydrogen is not viable.**.Please let's keep focused on EVs.

I oppse SB2570

SB-2570-SD-2
Submitted on: 3/15/2022 9:48:16 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Paula Miller	Individual	Oppose	Written Testimony Only

Comments:

My name is Paula Miller and I am a resident of Ninole, on the Hamakua Coast of the Big Island.

I strongly urge you to oppose SB2570 SD2 as it has a great potential to impede the expansion of electric vehicle charging infrastructure.

Hydrogen fuel cell vehicles (FCEVs) are electric cars and have zero tailpipe emissions. However, for the following reasons, efforts should be focused on accelerating the adoption of battery electric vehicles:

- Hydrogen/FCEVs are inherently inefficient. These vehicles are about three times less efficient than battery electric vehicles, a truly massive difference. We cannot afford to waste energy and need to opt for energy-efficient solutions.

- The hydrogen ground transportation ecosystem is costly. A hydrogen fueling station can cost $2,000,000. Level 2 and DC Fast Chargers cost around $10,000 to $150,000, respectively.

- In response to consumer demand, the supply of diverse, affordable, and longer-range EVs is consistently increasing. The same cannot be said for FCEVs. Global FCEV sales continue to be a small fraction of battery electric vehicles. This has implications in servicing, fueling, and supplying FCEVs.

- There are challenges associated with the creation of non-fossil fuel-based hydrogen. Most of the global hydrogen is produced from coal or gas. To be meaningful in Hawaii, the need for affordable electricity and transportation must first be met, and must be done with an abundance of firm renewable power.

SB2570 SD2 can potentially impact the expansion of public charging infrastructure negatively. As stipulated in the measure, ONE hydrogen fueling station rebate is as much as $200,000.

While SB2570 SD2 also includes an increase of the annual rebate program cap to $700,000 (from $500,000), it is apparent that one hydrogen fueling station rebate will be costly and consequential to the expansion of EV chargers. A $200,000 hydrogen fueling station rebate will support the installation of over 40 Level 2 charging stations or 5 DC Fast Chargers.

Public EV charging is necessary for the adoption of clean transportation and the democratization of the electric car. Public EV chargers are necessary for the equitable enjoyment of the cost savings and clean air benefits that electric vehicles provide.

A separate rebate fund should be established for FCEV fueling stations.

For all of the above reasons, please oppose SB2570 SD2.

SB-2570-SD-2
Submitted on: 3/15/2022 9:51:18 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

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

Comments:

- Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

- Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure.

SB-2570-SD-2
Submitted on: 3/15/2022 10:13:21 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ron Reilly	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair Lowen, Vice-Chair Marten, and members of the Energy and Environmental Protection Committee,

I am opposed to SB2570.

The available rebates are best used for electric vehicles and not for very expensive hydrogen fuel stations for fuel-cell cars that are only a small fraction of the number of electric vehicles.

Hawaii statistics show that growing public demand is for electric vehicles not for fuel cell vehicles.

State charging station rebates are best used to satisfy public demand and to help accelerate the adoption of battery electric vehicles by expanding availability of electric vehicle charging stations.

I urge your opposition to SB2570

Thank you for your consideration, Ron Reilly
Volcano Village, Hawaii
Member of the Hawaii EV Association

SB-2570-SD-2
Submitted on: 3/15/2022 10:23:54 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

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

Comments:

Please oppose this legislation.

Thnak you,

Melissa Barker

Kapaa, HI

SB-2570-SD-2
Submitted on: 3/15/2022 10:25:37 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Ryan Christopher	Individual	Oppose	Written Testimony Only

Comments:

There is currently no demand for H2 so why involve it?

SB-2570-SD-2
Submitted on: 3/15/2022 10:59:41 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Jacob Head	Individual	Oppose	Written Testimony Only

Comments:

OPPOSE! We need to have clean energy, not just displacing types of energy used in the guise of zero emmisions at the vehible. Please help us move us to energy independence without Hydrogen.

SB-2570-SD-2
Submitted on: 3/15/2022 1:08:38 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Caroline Kunitake	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair Lowen, Vice Chair Marten and Committee on Energy and Environmental Protection,

I oppose SB2570 SD2.

Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure.

We need to use our tax dollars wisely and economically.

I appreciate the opportunity to provide testimony in opposition to SB2570 SD2. Thank you for your time and attention to this matter.

Mahalo,

Caroline Kunitake

SB-2570-SD-2
Submitted on: 3/15/2022 1:37:43 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Larry Stevens	Individual	Oppose	Written Testimony Only

Comments:

It doesn't make sense to spend large amounts of money adding hydrogen fueling stations, because there are no hydrogen vehicles to use them. Instead, spend the money on much less expensive level 3 electric charging stations. The number of EVs is growing explosively, and appears likely to double in 2022. That's where we should put our resources now.

SB-2570-SD-2
Submitted on: 3/15/2022 1:39:30 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Phaethon Keeney	Individual	Oppose	Written Testimony Only

Comments:

Aloha esteemed legislators, please OPPOSE SB2570, we need to hasten the transition to EV's, on a priveleged minority have had access to hydrogen and it's infrastructure/market should not compete with EV at this critical time.

As, 350Hawaii so clearly states: "This bill will negatively impact funding of the Commercial EV Charger Rebate Program. Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more - a couple of these stations will use up most of the annual rebate fund for EV chargers."

Thank you,

Phaethon Keeney

Honokaa HI

SB-2570-SD-2
Submitted on: 3/15/2022 1:41:31 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Racquel Segato-Figueroa	Individual	Oppose	Written Testimony Only

Comments:

Aloha! As a concerned Hawai'i resident I do not support SB2570 SD2. In Hawai'i there are nearly 20,000 EVs and less than 40 hydrogen vehicles. Hydrogen fuel-cell vehicles are not breaking into the auto market. It is more important for us to be focusing on expanding EV charging infrastructure, which is in much higher demand and is much more affordable - only $10,000 for a Level 2 charger compared to $2,000,000 per hydrogen station. It is important in this critical stage of transition to clean transportation that we use our limited resources wisely and address the shortage of working EV charging stations. Mahalo!

SB-2570-SD-2
Submitted on: 3/15/2022 2:25:10 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Paul Bernstein	Individual	Oppose	Written Testimony Only

Comments:

Aloha Chair Lowen, Vice Chair Marten, and Committee Members:

I'm writing in opposition to SB2570. Presumably, the motivation to expand zero-emission vehicle fueling systems to include hydrogen is to increase the penetration of zero-emission vehicles. But this bill has two serious shortcomings.

1. The cost-effectiveness of reducing emissions by funding hydrogen fueling stations instead of EV charging stations is dreadful given the extremely low penetration of hydrogen powered vehicles compared to electric vehicles. With limited funds, we should put them where we get the greatest emission reductions for each dollar expended.
2. It fails to ensure that the vehicles would be truly zero emitting as currently most hydrogen is produced from fossil fuels, which actually leads to a hydrogen powered vehicle having more emissions than a current gasoline powered vehicle. Therefore, the bill needs to be amended so that only green hydrogen (or at least a percentage of green hydrogen consistent with the existing RPS standard) can be used to fuel the hydrogen tanks at the station.
3. This bill is regressive as it benefits the wealthy, for only they can afford to purchase hydrogen powered vehicles.

Respectfully,

Paul Bernstein

SB-2570-SD-2
Submitted on: 3/15/2022 2:41:18 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Virginia Tincher	Individual	Comments	Written Testimony Only

Comments:

Dear EEP Committee Members,

Zero Emission Fueling rebates for EV charging stations makes sense. It will accelerate the transition to electric vehicles. Auto makes have committed to building electric vehicles and new models are being introduced every year in every price range and for every need.

I oppose the addition of rebates for Hydrogen fuel-cell vehicles. They are just getting started in production and charging stations are much more expensive. It's not a good investment of limited rebate funds.

In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles. At this point government funds are more wisely spent accelerating a well established technology like electric vehicles.

Thank you,

Virginia Tincher

SB-2570-SD-2
Submitted on: 3/15/2022 2:55:15 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Gordon Karsin	Individual	Oppose	Written Testimony Only

Comments:

I oppose this as hydrogen fuel stations should not be added to EV charger Rebate program.

SB-2570-SD-2
Submitted on: 3/15/2022 6:13:04 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
John Latkiewicz	Individual	Oppose	Written Testimony Only

Comments:

This bill will negatively impact funding of the Commercial EV Charger Rebate Program. Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more - a couple of these stations will use up most of the annual rebate fund for EV chargers.

SB-2570-SD-2
Submitted on: 3/15/2022 7:05:55 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Travis Idol	Individual	Oppose	Written Testimony Only

Comments:

I oppose this bill not because we should not support the development of hydrogen fuel cell vehicles but rather because funding of this effort needs to be separated from our support for EVs. Electric vehicles are a proven technology that is growing rapidly in popularity and acceptance. Charging stations are relatively inexpensive, so funds dedicated to building this infrastructure can have tremendous impact on facilitating our needed rapid transition off internal combustion enginge vehicles.

Hydrogen fuel-cell vehicles are still a novelty in Hawaii, and the refueling stations currently are almost 100 times more expensive thatn EV recharging stations. Thus, it makes no sense at this critical stage in our transition to clean transportation to reallocate resources for EV infrastructure. The value of hydrogen fuel cell-powered vehicles and supporting infrastructure need to be argued and justified on their own merits and not mixed in with EVs.

SB-2570-SD-2
Submitted on: 3/15/2022 7:25:53 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Koohan Paik	Individual	Oppose	Written Testimony Only

Comments:

STRONGLY OPPOSE.

Hydrogen fuel vehicles have too little traction in the auto market and the infrastructure is too expensive.

SB-2570-SD-2
Submitted on: 3/15/2022 7:36:06 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
tlaloc tokuda	Individual	Oppose	Written Testimony Only

Comments:

Dear EEP Chair and Committee,

Please KILL this Bad Bill. Its almost as bad as the Stand Your Ground Bill (which was soundly defeated!).

Bill **SB2570 SD2** will negatively impact funding of the Commercial EV Charger Rebate Program. Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more - a couple of these stations will use up most of the annual rebate fund for EV chargers. This bill must have been written by the hydrogen vehicle industry. The bill tries to take away any incentive for commercial EV vehicles have!

Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure. I strongly oppose this bill, PLEASE KILL (this) BILL!!

Mahalo for your consideration,

Tlaloc Tokuda

Kailua Kona HI 96740

SB-2570-SD-2
Submitted on: 3/15/2022 8:04:39 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Sherri Thal	Individual	Oppose	Written Testimony Only

Comments:

Aloha,

I oppose SB2570 SD2 because it wrongly mixes mediums! Supporting EV charging stations and rebates is a very good idea and needs to be expanded. Hydrogen fuel stations would have a negative impact in Hawaii right now as there are only 39 Hydrogen vehicles in the state, but over 18,000 Electric Vehicles. The cost of building a hydrogen fuel station is enormous - upwards of one million dollars, and the rebates for these stations would bleed the EV rebates dry. Our state needs to support EVs now. If, and only if, hydrogen was made using renweable energy, then there could be a time and place in the future for that technology expansion here in Hawaii. For now, can we please focus on the positive and the present and expand our Electric Vehicle charging stations and rebates without allowing Hydrogen in the mix?

Mahalo,

Sherri Thal, Keaau, HI 96749

SB-2570-SD-2
Submitted on: 3/15/2022 8:29:52 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Noreen Dougherty	Individual	Oppose	Written Testimony Only

Comments:

Senators:

I am strongly opposed to SB2570 SD2 due to the cost of the hydrogen fueling stations being a misuse of funds that can be used for EV chargers.

Mahalo.

Noreen Dougherty

Kapaa, Hawaii

SB-2570-SD-2
Submitted on: 3/15/2022 8:41:20 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Vivien Lee and Charlie Reppun	Individual	Oppose	Written Testimony Only

Comments:

We are opposed to this bill.

- Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

- Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure.

Thank you,

Charlie Reppun and Vivien Lee

SB-2570-SD-2
Submitted on: 3/15/2022 8:46:56 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Shannon Rudolph	Individual	Oppose	Written Testimony Only

Comments:

Oppose

SB-2570-SD-2
Submitted on: 3/15/2022 9:22:35 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Kris Matsumoto Wong	Individual	Oppose	Written Testimony Only

Comments:

I oppose SB 2570. Please reject this bill which contradicts the good work done by SB 2720. Seems like political frackery and it should not be tolorated.

Benjamin Duke
Kailua-Kona

March 15, 2022

Re: SB2570

Committee on Energy and Environmental Protection

Rep. Nicole Lowen, Chair

Rep. Lisa Marten, Vice Chair

Aloha Chair Lowen, Vice Chair Marten, and Members of the Committee,

I would like to express my opposition to for SB2570. I believe that climate change is the biggest issue that our state faces. Please don't waste valuable money on supporting hydrogen fuel-cell vehicles. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles. Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure

Mahalo for your consideration,

Benjamin Duke

SB-2570-SD-2
Submitted on: 3/15/2022 11:17:11 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
JON BRODZIAK	Individual	Oppose	Written Testimony Only

Comments:

Dear Legislators,

I strongly oppose SB2570.

There are very few hydrogen fual cell vehicles registered

in Hawaii, well less than 1% of the roughly 18,000 EVs

now registered in the state. Funding hydrogen fueling

stations at about $2,000K (USD) per station is a complete

waste of money in comparison to funding EV stations

at about $10K per station. Do not waste tax payers money

on hydrogen fueling stations! You guys are not playing with

house money here an I ask that you do the right thing

and fail this poorly-conceived SB2570 bill.

Thanks for hearing these comments and mahalo

in advance for wisely shelving this proposed bill.

Yours sincerely,

Jon Brodziak

SB-2570-SD-2
Submitted on: 3/16/2022 3:55:34 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Priscilla Rodriguez	Individual	Oppose	Written Testimony Only

Comments:

This adds hydrogen fueling stations to the EV Charger Rebate program and will negatively impact it.

SB-2570-SD-2
Submitted on: 3/16/2022 8:17:18 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Shannon Matson	Individual	Oppose	Written Testimony Only

Comments:

Aloha Chair and Committee members,

During this time of critical action for climate change we need to be focused on what is most doable and will have the biggest impact. This is neither of those things. Please focus on EV charging stations and other infrastructure that will support our goals of reaching lower emissions and less reliance on fossil fuels the fastest.

Mahalo nui,

Shannob Matson

SB-2570-SD-2
Submitted on: 3/16/2022 8:21:45 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
P Noel Bobilin	Individual	Oppose	Written Testimony Only

Comments:

Aloha, I oppose this bill because Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles. Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure.

Thank you

Noel Bobilin

SB-2570-SD-2
Submitted on: 3/16/2022 8:53:58 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Noel Morin	Individual	Oppose	Written Testimony Only

Comments:

Dear Chair Lowen, Vice-Chair Marten, and members of the Energy and Environmental Protection Committee,

Big Island EV Association (BIEVA) opposes SB2570 SD2 as it has a great potential to impede the expansion of electric vehicle charging infrastructure. It will complete with more affordable and useful EV charging stations for limited Commercial EV Charger Rebate funds. This will create a drag on the needed expansion of EV charging across Hawaii.

We ask that it be deferred or that we establish a separate rebate fund for hydrogen fueling stations.

Thank you for this opportunity to testify.

Noel Morin

President - BIEVA

bigislandev.org

SB-2570-SD-2
Submitted on: 3/16/2022 9:01:58 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Jim Scancella	Individual	Oppose	Written Testimony Only

Comments:

I am opposed to this, There are not enough Fuel Cell vehicles to justify taking money from EV Car stations to create the much more expensive Fuel Cell stations.

SB-2570-SD-2
Submitted on: 3/16/2022 9:56:27 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Cheryl Ho	Individual	Oppose	Written Testimony Only

Comments:

Aloha, Chair and Members of the EEP Committee!

Thank you for reading my testimony.

I strongly OPPOSE SB2570 SD2. It would negate the effectiveness of another rebate bill which I support.

Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more. So two of such stations will use up most of the annual rebate fund for EV chargers!

Please vote against SB2570 SD2!!

Mahalo,

Cheryl O. Ho, Nu‘uanu

Whereas commercial Level 2 charging stations and DC Fast Chargers can run about $10k and $150k, respectively, hydrogen fueling stations can run $1-2M. A meaningful hydrogen fueling stations rebate will be $200k or more - a couple of these stations will use up most of the annual rebate fund for EV chargers.

SB 2570 SD 2 TESTIMONY

To: House Committee on Energy and Environmental Protection
Hearing on March 17, 2022 at 9:00 a.m.

From: John Kawamoto

Position: Oppose

Not all zero emission vehicles are the same. When comparing electric vehicles with hydrogen fuel cell vehicles, electric vehicles are far more advanced in technology and in adoption by customers. In the U.S., a total of 291,933 electric vehicles were sold in 2021, compared with only 3,341 hydrogen fuel cell vehicles sold in the same period.

The numbers show that electric vehicles are winning the battle for commercialization. In allowing rebates for electric vehicle charging stations to be used for rebates for refueling stations for hydrogen vehicles, this bill discourages Hawaii's transition to a clean, renewable energy future.

Furthermore, hydrogen refueling stations are associated with much greater costs than electric vehicle charging stations. Each hydrogen refueling station will be eligible for a rebate of $200,000. By contrast, each electric vehicle charging station will be eligible for a rebate ranging from $3,000 to $28,000, depending on the type of charging station. The rebate for only one hydrogen refueling station will be greater than the total rebates for seven or more electric vehicle charging stations.

Hydrogen fuel cell vehicles may be a part of Hawaii's clean, renewable energy future. However, the funding sources for rebates for hydrogen refueling stations should be separate from the funding sources for rebates for electric vehicle charging stations.

For the foregoing reasons, the committee should hold this bill.

SB-2570-SD-2
Submitted on: 3/16/2022 10:21:06 AM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Patricia Blair	Individual	Oppose	Written Testimony Only

Comments:

Bad idea.

SB-2570-SD-2
Submitted on: 3/16/2022 2:00:11 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
Diane Ware	Individual	Oppose	Written Testimony Only

Comments:

Dear Legislators,

I oppose this bill because Hydrogen fuel-cell vehicles have little traction in the auto market. In Hawaii, currently there are over 18,000 registered EVs to 37 Hydrogen vehicles.

Considering how expensive hydrogen fueling stations are, (up to $2,000,000 per station, compared to $10,000 for commercial Level 2 charging stations), and the existing shortage of working EV charging stations available to the public, it does not make sense at this critical stage in our transition to clean transportation to siphon our limited resources away from the expansion of EV charging infrastructure.

Mahalo for acting wisely and rejecting this bill,

Diane Ware, 99-7815 Kapoha Pl, Volcano Hi 96785

SB-2570-SD-2
Submitted on: 3/16/2022 4:49:37 PM
Testimony for EEP on 3/17/2022 9:00:00 AM

Submitted By	Organization	Testifier Position	Testify
GORAN RAD	Individual	Oppose	Written Testimony Only

Comments:

ZERO EMISSION REBATE PROGRAM is appropriately NAMED for the best intentions moving forward. HOWEVER, HYDROGEN REFUELING IS EXPENSIVE AND NOT EASILY ADOPTABLE BY THE GENERAL PUBLIC>. PLEASE KILL THIS BILL. TAHNK YOU