

## DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

DAVID Y. IGE  
GOVERNOR

LUIS P. SALAVERIA  
DIRECTOR

MARY ALICE EVANS  
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Statement of  
**LUIS P. SALAVERIA**  
Director  
Department of Business, Economic Development and Tourism  
before the  
**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**  
Tuesday, February 28, 2017  
2:00 P.M.  
State Capitol, Conference Room 329  
in consideration of  
**HB738, HD1**  
**RELATING TO FUEL CELL ELECTRIC VEHICLES**

Chair McKelvey, Vice Chair Ichiyama, and Members of the Committee.

The Department of Business, Economic Development and Tourism (DBEDT) **supports** House Bill 738, HD1, which amends the definition of electric vehicles to include fuel cell electric vehicles (FCEV).

DBEDT acknowledges the appropriateness of including incentives of hydrogen FCEVs with electric vehicles (EV), since both are complementary electric drive technologies, releasing zero tailpipe emissions. As an electric drive vehicle FCEV have the potential to utilize renewable energy sources contributing to public policy benefits including the integration of renewables and the reduction of petroleum in ground transportation.

Including FCEVs into the definition of EV is an actionable step that sends a signal to industry that Hawaii supports the deployment of advanced transportation technologies. HB 738, HD1 is consistent with the U.S. Department of Transportation's Federal Highway Administration recent designation of routes that will serve as a national network of "alternative fuel" corridors spanning 35 states, including Hawaii's Oahu Electric Drive Corridor which incorporates FCEV and plug-in electric vehicles.

As this measure concerns State facility management and the regulation of high occupancy vehicle lanes, DBEDT respectfully defers to the Hawaii Department of Accounting and General Services and the Hawaii Department of Transportation on these matters. Thank you for the opportunity to provide DBEDT's position on HB 738, HD1.

DAVID Y. IGE  
GOVERNOR



SARAH ALLEN  
ADMINISTRATOR  
MARA SMITH  
ASSISTANT ADMINISTRATOR

**STATE OF HAWAII  
STATE PROCUREMENT OFFICE**

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TESTIMONY  
OF  
SARAH ALLEN, ADMINISTRATOR  
STATE PROCUREMENT OFFICE  
  
TO THE HOUSE COMMITTEE  
ON  
CONSUMER PROTECTION & COMMERCE

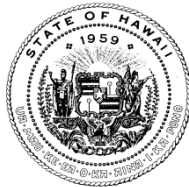
February 28, 2017, 2:00 PM

HB738, HD1  
RELATING TO FUEL CELL ELECTRIC VEHICLES

Chair McKelvey, Vice-Chair Ichiyama, and members of the committee, thank you for the opportunity to submit testimony on SB738, HD1. The State Procurement Office (SPO) has no position on this bill.

Thank you.

DAVID Y. IGE  
GOVERNOR



**LATE**

Testimony by:  
FORD N. FUCHIGAMI  
DIRECTOR

Deputy Directors  
JADE T. BUTAY  
ROSS M. HIGASHI  
EDWIN H. SNIFFEN  
DARRELL T. YOUNG

IN REPLY REFER TO:

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

February 28, 2017  
2:00 p.m.  
State Capitol, Room 329

**H.B. 738, H.D. 1  
RELATING TO FUEL CELL ELECTRIC VEHICLES**

House Committees on Consumer Protection and Commerce

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The Department of Transportation (DOT) **supports** H.B. 738, H.D.1 which amends the definition of electric vehicles to include fuel cell electric vehicles and grant procurement priority for fuel cell electric vehicles for State and County vehicle purchases.

The DOT believes the incentives of this bill promote sustainable transportation and helps the State meet its energy goals.

Thank you for the opportunity to provide testimony.

# SanHi Government Strategies

a limited liability law partnership

Gary M. Slovin  
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DATE: February 27, 2017

TO: Representative Angus McKelvey  
Chair, Committee on Consumer Protection and Commerce

*Submitted via Capitol Website*

RE: **H.B. 738, H.D.1 – Relating to Fuel Cell Electric Vehicles**  
**Hearing Date: Tuesday, February 28, 2017 at 2:00 p.m.**  
**Conference Room: 329**

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Dear Chair McKelvey and Members of the Committee on Consumer Protection and Commerce:

The Alliance of Automobile Manufacturers (“Alliance”) would like to express **support** for H.B. 738, H.D.1. The Alliance is a trade association of twelve car and light truck manufacturers including BMW Group, Fiat Chrysler Automobiles, Ford Motor Company, General Motors Company, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, Volkswagen Group of North America, and Volvo Car USA.

H.B. 738, H.D.1 would include in statute a definition of fuel cell electric vehicle for purposes of encouraging early adoption of fuel cell electric vehicles. Automobile manufacturers have invested heavily in the research and development of hydrogen technology, and the Alliance is very supportive of efforts to increase the availability of passenger fuel cell electric vehicles in Hawaii.

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

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Gary M. Slovin  
Mihoko E. Ito  
R. Brian Tsujimura  
C. Mike Kido  
Tiffany N. Yajima  
Matthew W. Tsujimura



COLLEGE OF SOCIAL SCIENCES  
**HAWAII ENERGY POLICY FORUM**  
UNIVERSITY OF HAWAI'I AT MĀNOA

**Hawaii Energy Policy Forum**

Jeanne Schultz Afuvai, Hawaii Inst. for Public Affairs  
Hajime Alabanza, Hawaii Solar Energy Association  
John Antonio, US Dept of Agriculture  
Karlle Asato, Hawaii Government Employees Assn  
David Bissell, Kauai Island Utility Cooperative  
Joseph Boivin, Hawaii Gas  
Warren Bollmeier, Hawaii Renewable Energy Alliance  
Michael Brittain, IBEW, Local Union 1260  
Albert Chee, Chevron  
Elizabeth Cole, The Kohala Center  
Kyle Datta, Ulupono Initiative  
Mitch Ewan, UH Hawaii Natural Energy Institute  
Jay Fidell, ThinkTech Hawaii  
Carl Freedman, Haiku Design & Analysis  
Matthias Fripp, REIS at University of Hawaii  
Ford Fuchigami, Hawaii Dept of Transportation  
Justin Gruenstein, City & County of Honolulu  
Dale Hahn, Ofc of US Senator Brian Schatz  
Michael Hamnett, SSRI at University of Hawaii  
Senator Lorraine Inouye, Hawaii State Legislature  
Randy Iwase, Public Utilities Commission  
Brian Kealoha, Hawaii Energy  
Darren Kimura, Energy Industries  
Kelly King, Sustainable Biodiesel Alliance  
Kal Kobayashi, Maui County Energy Office  
Representative Chris Lee, Hawaii State Legislature  
Gladys Marrone, Building Industry Assn of Hawaii  
Stephen Meder, UH Facilities and Planning  
Joshua Michaels, Ofc of US Representative Colleen Hanabusa  
Sharon Moriawaki, UH Public Policy Center  
Ron Nelson, US Pacific Command Energy Office  
Jeffrey Ono, Division of Consumer Advocacy, DCCA  
Stan Osserman, HCATT  
Darren Pai, Hawaiian Electric Companies  
Melissa Pavlicek, Hawaii Public Policy Advocates  
Randy Perreira, Hawaii Government Employees Assn  
Fredrick Redell, Maui County Energy Office  
Rick Rocheleau, UH Hawaii Natural Energy Institute  
Will Rolston, Hawaii County, Research & Development  
Peter Rosegg, Hawaiian Electric Companies  
Riley Saito, SunPower Systems  
Scott Seu, Hawaiian Electric Companies  
Joelle Simonpietri, UH Applied Research Lab  
Ben Sullivan, Kauai County  
Terry Surles, Hawaii State Energy Office, DBEDT  
Lance Tanaka, Par Hawaii, Inc.  
Maria Tome, Public Utilities Commission  
Kirsten Turner, Ofc of US Representative Tulsi Gabbard  
Alan Yamamoto, Ofc of US Senator Mazie Hirono

Testimony of Hawaii Energy Policy Forum  
to the  
House Committee on Consumer Protection & Commerce

February 28, 2017 at 2:00 pm in Conference Room 329

**IN SUPPORT OF HB 738, HD1** Relating to Fuel Cell Electric Vehicles

Chair McKelvey, Vice-Chair Ichiyama, and Members of the Committee,

The Forum, created in 2002, is comprised of over 40 representatives from Hawaii's electric utilities, oil and natural gas suppliers, environmental and community groups, renewable energy industry, and federal, state and local government, including representatives from the neighbor islands. Our vision and mission, and comprehensive "10 Point Action Plan" serves as a guide to move Hawaii toward its preferred energy goals and our support for this bill.

HB 738, HD1 clarifies that fuel cell electric vehicles are "electric vehicles" that use a fuel cell to convert hydrogen gas and oxygen into electricity to charge onboard batteries and power one or more onboard electric motors to propel the vehicle. Fuel cell electric vehicles, because they are zero emission vehicles (ZEVs), can help Hawaii fulfill the goals of the Hawaii Clean Energy Initiative of reducing petroleum use in Hawaii's transportation sector, an important focus given that transportation accounts for two thirds of the state's overall energy mix.

Based on the foregoing, fuel cell "electric vehicles" should be granted the same state and county procurement priority, parking, and HOV lane use incentives as other electric vehicles.

The Forum strongly supports HB 738 HD1, and respectfully urges passage of the bill.

Thank you for the opportunity to testify.

**LATE**



Brian Kitagawa, President  
Dave Rolf, Executive Director

## **HADA Testimony**

### **In STRONG SUPPORT of HB 2080 HD1**

#### **RELATING TO FUEL CELL ELECTRIC VEHICLES**

Presented to the House Committee on Consumer Protection and Commerce at the public hearing 2 p.m. February 28, 2017

Chair McKelvey, Vice Chair Ichiyama and members of the committee:

**I am David Rolf, speaking on behalf of the dealer members of the Hawaii Automobile Dealers Association, who own and operate the 70 franchised new- car dealerships in the State of Hawaii, who are in STRONG SUPPORT of HB 738, Relating to Fuel Cell Electric Vehicles.**

The bill includes fuel cell electric vehicles in the definition of electric vehicles for purposes of parking exemptions, HOV lane use, registration, and required parking spaces in places of public accommodation.

HADA dealers continue to ardently support of the goals of the Hawaii Clean Energy Initiative and the adoption of renewable energy vehicles.

Hawaii continues to maintain its ranking as one of the top states in percentage of renewable energy electric vehicles sold compared to internal combustion vehicles.

Initiatives, created by the legislature, like the use of High Occupancy Vehicle lanes with only one occupant, and the provision of limited free parking at designated public sites has encouraged the adoption of these electric vehicles.

HADA believes Hawaii's high electric vehicle adoption rate provides a model for a similarly high Hydrogen Fuel Cell Electric Vehicle adoption rate, if similar public policy provisions like use of HOV lanes and free parking incentives are provided to HFCEV purchasers.

An April 2015 study by the University of Hawaii, Economic Research Organization, "Factors Affecting EV Adoption: A Literature Review and EV Forecasts for Hawaii" shows the value of HOV lane use and free parking incentives in creating high adoption rates for electric vehicles.

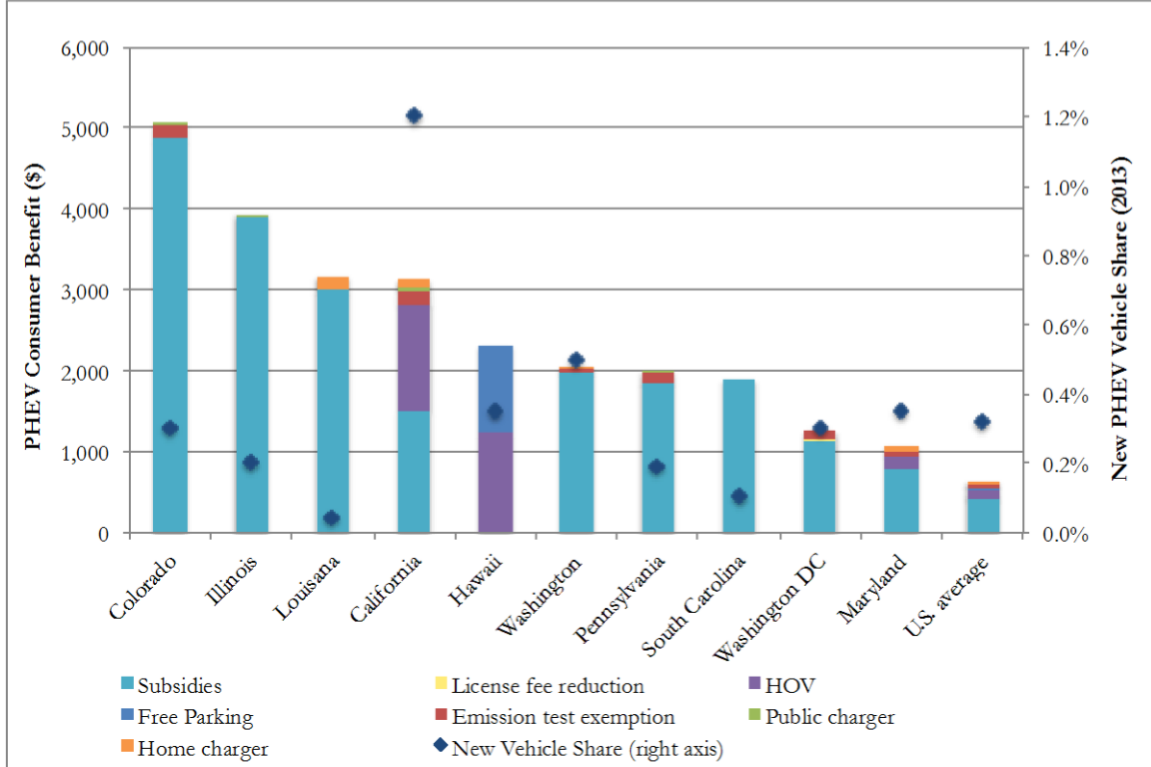
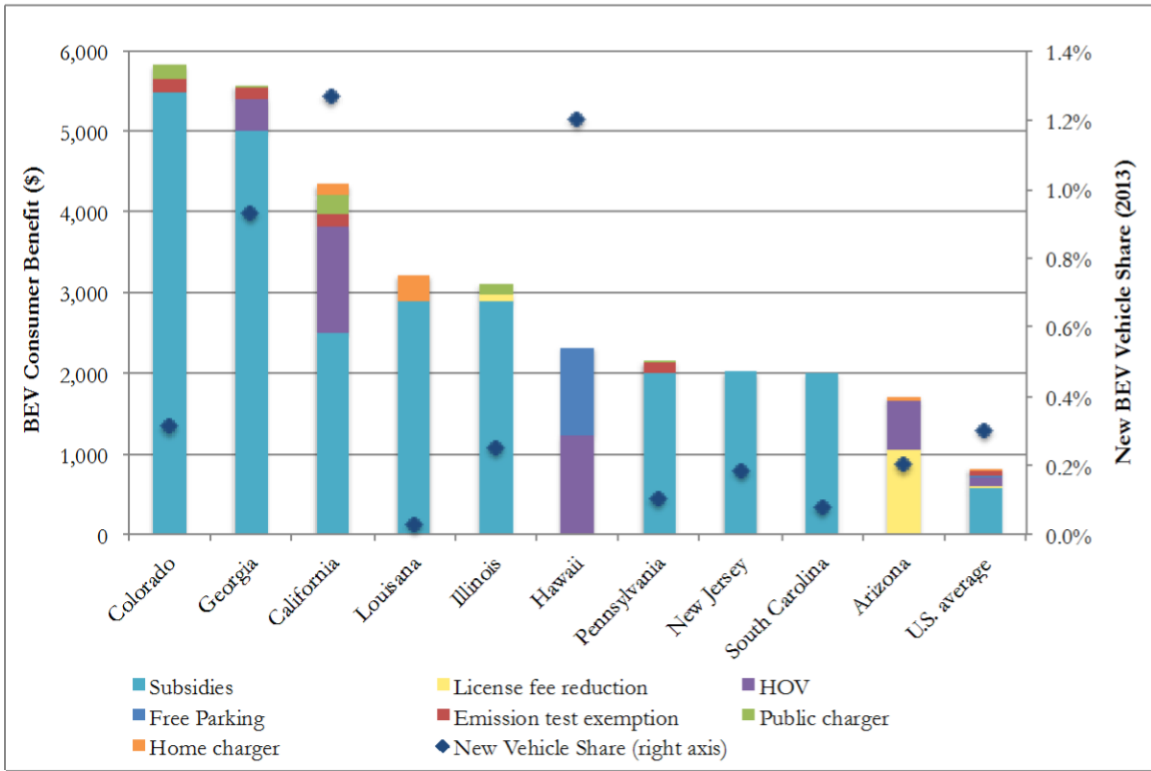
### **Policy Mechanisms**

Policy mechanisms available to support EV adoption include *subsidies and other incentives, supporting infrastructure build-up and raising awareness.*

Gallagher and Muehlegger (2011) use national HEV sales data per capita to assess the impacts of incentives such as access to HOV lanes, tax credits, sales tax rebates, and gas prices. They found that gas prices and tax incentives significantly impact sales, where the rebate has a larger effect than the credit. They found that access to HOV lanes is significant in some states.

Source: Recreated from Jin et al. (2014).

### **Figure 7. PHEV Consumer Benefit and EV Market Share by State**



Source: Recreated from Jin et al. (2014). 17

Jin et al. (2014) found that the most valuable state incentives are direct subsidies, though access to HOV lanes is also notable.



Hawaii is found to rank sixth in regards to EV incentives, where they are valued at about \$1,200 for HOV lane access and about \$1,000 for free parking at metered stalls (for BEVs).

Many carmakers are preparing to shift to hydrogen fuel cells. “...automakers are increasingly betting the future of green cars on hydrogen fuel cell technology.” --Charles Fleming LA Times story 11/18/14

One HADA member already has brought in a hydrogen fuel cell electric vehicle for sale to the general public.

Public policy initiatives like providing HOV lane use for HFCEVs and providing limited free parking, like that offered to EV owners in Hawaii, will provide much needed incentives for the purchase of the renewable energy Hydrogen Fuel Cell Electric Vehicles needed to meet the goals of the Hawaii Clean Energy Initiative.

For the aforementioned reasons, the Hawaii Automobile Dealers Association respectfully requests the committee support passage of HB 738.

Respectfully submitted, David H. Rolf Hawaii Automobile Dealers Association 1100 Alakea St. Suite 2601 Honolulu, Hawaii 96813 Tel: 808 593-0031

Testimony of Rachel James  
Student, Energy Justice Program  
University of Hawaii at Manoa, William S. Richardson School of Law  
Tuesday, February 28, 2017  
2:00 PM  
RM 4329

Measure: H.B. No. 738

Title: RELATING TO FUEL CELL ELECTRIC VEHICLES

Dear Chair McKelvey and Vice Chair Ichiyama and Committee Members,

Thank you for welcoming my engagement in the consideration of House Bill 738. I am in strong support of the passage of this bill in its original composition.

I commend Chair Aquino for introducing this measure and am glad to see that it has progressed to the Consumer Protection and Commerce Committee. Its submission and progression is an acknowledgement of the leadership Hawaii has evidenced in the advancement of fuel cell technology adoption.

I believe that the measure's amendments should be effective upon passage of the bill and not wait until 2050. Fuel cell electric vehicles are already on island and are commercially available in some US cities.

As a state, we have collectively committed to reflect our economic and environmental values in our laws. Act 97 has been instrumental in attracting a diversity of talent and technology to the state. This diversity creates increased opportunities not only in the job market, but in industry development as well. This directly impacts the options for aspiring professionals who would like to live and work in Hawaii.

The Act also evidenced Hawaii's awareness of the technological capabilities available today in renewable energy. As a state, we declared that not adopting those technologies to support a sustainable economy and environment would be unacceptable.

Similarly, I believe the bill should pass to continue to propel the state forward on its environmental and economic goals. As related to consumers and commerce, permitting the appropriate designation of a vehicle that consumers will soon be able to purchase is in the best interest of both the consumer and the local government.

As an Energy Justice Program Fellow at the William S. Richardson School of Law, I am often encouraged by the unique approach to legislating that Hawaii has taken over the years. I am encouraged by the direction that this legislature has taken in the introduction of HB738 as it reflects the legislature's intent to remain relevant and proactive in a time when technology is advancing at such rapid rates.

I look forward to the passage of this bill and thank you for this opportunity to provide comments.

Mahalo,  
Rachel James  
William S. Richardson School of Law  
Energy Justice Program Fellow  
JD Candidate, Class of 2019

# CRAIG WASHOFSKY

## Testimony in SUPPORT of HB738 Relating to Fuel Cell Electric Vehicles

Presented to the House Committee on Consumer Protection & Commerce  
at the public hearing to be held on Tuesday, February 28, 2017 at 2:00 p.m.  
in Conference Room 329, Hawaii State Capitol

Aloha Chair McKelvey, Vice Chair Ichiyama, and Members of the Committees:  
I would like to testify **in strong support** of HB738 that includes fuel cell electric vehicles  
in the definition of "electric vehicles" for purposes of parking exemptions, HOV lane use,  
registration, and required parking spaces in places of public accommodation.

Here are the key benefits as I see them:

- The passage of this measure will demonstrate Hawaii's commitment to utilizing all clean transportation technology available to it to reach its clean energy goals.
- Producing hydrogen from water using a renewable source of electricity like solar helps Hawaii become more self-reliant and reduces our dependency on imported oil.
- By including hydrogen fuel cell vehicles into the definition electric vehicles, the State of Hawaii can incentivize another clean transportation option with virtually no impact to taxpayers.

Thank you for the opportunity to provide testimony.

Sincerely,



Craig Washofsky

**Testimony in SUPPORT of  
HB738  
Relating to Fuel Cell Electric Vehicles**

Presented to the House Committee on Consumer Protection & Commerce  
at the public hearing to be held on Tuesday, February 27, 2017 at 2:00 p.m.  
in Conference Room 329, Hawaii State Capitol

To: Chair McKelvey, Vice Chair Ichiyama, and Members of the Committees:

I would like to testify in support of HB738 that includes fuel cell electric vehicles in the definition of "electric vehicles" for purposes of parking exemptions, HOV lane use, registration, and required parking spaces in places of public accommodation.

In Hawaii today, our state will need to actively choose to remain leaders in clean fuel and environmental protections, given the federal level reduction in support for these initiatives. Our island state is unique and a visitor destination, fueling our economy, because of its relatively pristine condition relative to other parts of the United States and world.

From an economic standpoint, we must vigorously move in the direction of less fossil fuel consumption and dependence to maintain our reputation and attractiveness. Eco-tourism, growing since the global environmental movement starting in the '70s ([www.Ecotourism.org](http://www.Ecotourism.org)). Today, it is one of the fastest growing sectors of tourism, not only in Hawaii but across the globe. An important differentiator are the linkages to practical sustainability including reduction of energy use in hotels, transportation, golf resorts, and other visitor industry businesses including restaurants.

Practicing leadership in the emerging fuel cell electric vehicles is directly linked to support of our economic engine of hospitality.

I support the enablement of incentives, as listed above, for use of fuel cell electric vehicles to encourage growth in this sector of the market, to ensure they are an accepted part of the fabric of ecotourism, and that Hawaii can benefit from a marketing and branding standpoint by having passed this bill.

Phyllis C. Horner

1970's,

**Testimony in SUPPORT of  
HB738  
Relating to Fuel Cell Electric Vehicles**

Presented to the House Committee on Consumer Protection & Commerce  
at the public hearing to be held on Tuesday, February 28, 2017 at 2:00PM  
in Conference Room 329, Hawaii State Capitol

Aloha Chair McKelvey, Vice Chair Ichiyama, and Members of the Committees:

I would like to testify in support of HB738 that includes fuel cell electric vehicles in the definition of "electric vehicles" for purposes of parking exemptions, HOV lane use, registration, and required parking spaces in places of public accommodation.

It's important that we continue to drive forward with our efforts to make it easier for people to "do the right thing" for our local environment and this is a positive step in that direction. Including hydrogen fuel cell vehicles within the existing definition of electric vehicles allows the State to incentivize another clean mobility option with a low impact to taxpayers. Any measure that encourages people to drive more fuel efficient vehicles ultimately helps all of us and makes the goals of Hawaii's Clean Energy Initiative more realistically attainable.

Kim Randall

808-234-9171

krandallhi@gmail.com