



TESTIMONY BY:

JADE T. BUTAY
DIRECTOR

Deputy Directors
LYNN A.S. ARAKI-REGAN
DEREK J. CHOW
ROSS M. HIGASHI
EDWIN H. SNIFFEN

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

February 12, 2019
3:15 p.m.
State Capitol, Room 225

S.B. 661
RELATING TO FUEL CELL ELECTRIC VEHICLES.

Senate Committees on Government Operations and Transportation

The Department of Transportation (DOT) **supports with an amendment** S.B. 661 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.

While DOT believes that the incentives of this bill promotes sustainable transportation in meeting Hawaii's energy goals, we request SECTION 3 be revised to read as follows:

SECTION 3. Act 168, Session Laws of Hawaii 2012, is amended by amending section 2 to read as follows:

"SECTION 2. (a) The department of transportation may adopt rules pursuant to chapter 91, Hawaii Revised Statutes, for the registration of, and issuance of special license plates for, electric vehicles.

(b) An electric vehicle on which an electric vehicle license plate is affixed shall be exempt from payment of parking fees, including those collected through parking meters, charged by any state or county authority in this State, except that this exemption shall not apply:

- (1) For more than two and one-half hours of metered parking, or the maximum amount of time the meter allows, whichever is longer; or
- (2) For non-metered parking stalls, for any period longer than the initial four hours of use of the parking stall.
- (c) An electric vehicle on which an electric vehicle license plate is affixed shall be exempt from high occupancy vehicle lane restrictions.
- (d) For the purposes of this Act:

"Electric vehicle" means:

- (1) A neighborhood electric vehicle; [ø€]
- (2) A vehicle, with four or more wheels, that draws propulsion energy from a battery with at least four kilowatt hours of energy storage capacity that can be recharged from an external source of electricity [·-] ;
or
- (3) A fuel cell electric vehicle.

"Fuel cell electric vehicle" means a zero-emission electric vehicle that uses a fuel cell to convert hydrogen gas and oxygen into electricity to power one or more onboard electric motors to propel the vehicle."

This revision will address parking abuse and create fairness to all users of public parking facilities while still maintaining an incentive. Electric vehicle owners will also have better access to charging stations with the free parking time limit. Moreover, our proposed revision will help to support the costs to operate and maintain electric vehicle charging stations at public parking facilities.

Thank you for the opportunity to provide testimony.



Email: communications@ulupono.com

SENATE COMMITTEES ON GOVERNMENT OPERATIONS AND TRANSPORTATION
Tuesday, February 12, 2019 — 3:15 p.m. — Room 225

Ulupono Initiative Strongly Supports SB 661, Relating to Fuel Cell Electric Vehicles

Dear Chair Thielen, Chair Inouye, Vice Chair Harimoto, and Members of the Committees:

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

Ulupono strongly supports SB 661, which categorizes hydrogen fuel-cell vehicles as electric vehicles and gives zero emission hydrogen vehicles the same benefits as electric vehicles, because it aligns with our goal of reducing Hawai'i's dependence on imported fossil fuels by increasing the use of more efficient, cleaner forms of ground transportation.

Hydrogen fuel-cell vehicles have been recently introduced to Hawai'i and are technically electric vehicles. These vehicles will provide another non-fossil fuel based transportation option for local consumers and similar societal benefits as battery electric vehicles. Providing hydrogen fuel-cell vehicle owners with the same benefits currently received by battery electric vehicles, high occupancy vehicle lane access, and free metered parking will help further their adoption.

As Hawai'i's energy issues become increasingly complex and challenging, we appreciate these committees' efforts to look at policies that support clean ground transportation.

Thank you for this opportunity to testify.

Respectfully,

Murray Clay
Managing Partner

Investing in a Sustainable Hawai'i



SanHi

GOVERNMENT STRATEGIES
A LIMITED LIABILITY LAW PARTNERSHIP

DATE: February 11, 2019

TO: Senator Laura Thielen
Chair, Committee on Government Operations

Senator Lorraine Inouye
Chair, Committee on Transportation

Submitted Via Capitol Website

FROM: Tiffany Yajima

RE: **S.B. 661 – Relating to Fuel Cell Electric Vehicles**
Hearing Date: Tuesday, February 12, 2019 at 3:15 p.m.
Conference Room: 225

Dear Chair Thielen, Chair Inouye, and Members of the joint Committees on Government Operations and Transportation:

We submit this testimony on behalf of the Alliance of Automobile Manufacturers (“Alliance”). The Alliance is a trade association of twelve car and light truck manufacturers including BMW Group, Fiat Chrysler Automobiles, Ford Motor Company, General Motors Company, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, Volkswagen Group of North America, and Volvo Car USA.

S.B. 661 would adopt in statute a definition of “fuel cell electric vehicle” to encourage early adoption of fuel cell electric vehicles. The Alliance supports this measure and would respectfully request the following amendment to ensure that all fuel cell technology is included in the definition of fuel cell electric vehicle:

"Fuel cell electric vehicle" means a zero-emission electric vehicle that uses a fuel cell to convert hydrogen gas and oxygen into electricity ~~to power one or more onboard electric motors to propel the vehicle that is used in a vehicle powertrain for propulsion.~~

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.

**Testimony in SUPPORT of
SB661
Relating to Fuel Cell Electric Vehicles**

Presented to the Senate Committees on Transportation & Government Operations
at the public hearing to be held on Tuesday, February 12, 2019 at 3:15 p.m.
in Conference Room 225, Hawaii State Capitol

Aloha Chair Inouye, Chair Thielen, and Members of the Committees:

I would like to testify in support of SB661 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.

Concern for the environment is regularly stated as one of the top concerns in surveys of Hawaii citizens, and we value the protection of the environment, especially as Hawaii is home to a unique ecosystem. The State of Hawaii's Statewide Transportation Plan includes the goals of protecting Hawaii's environment and supporting the states energy goal of 70% clean energy and encourages the use of clean transportation technology in an effort to be sustainable. The Department of Business, Economic Development and Tourism also includes sustainable goals and is looking at how to maintain a balance between tourism and Hawaii's economic, environmental and social values.

Currently, owners of electric vehicles enjoy incentives such as use of the HOV lane, free parking at the airport and designated parking in many parking garages. These incentives are provided to encourage us to help support our clean energy goals. Besides battery powered vehicles, there is new technology that reduces our reliance on fossil fuels. This is hydrogen powered fuel cell vehicles, which utilizes solar energy to produce hydrogen from water. Water and solar energy are both readily available resources in our state.

As we look to the future, we should support innovations that lead to new developments in clean technology, like hydrogen fuel cells. We should not limit our incentives to the technology that was available at the time the initial incentives bill was passed. The passage of this bill will demonstrate Hawaii's commitment to the our clean energy goals for the environment, sustainability and future generations. It will also make us more self-reliant and less dependent on imported oil.

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



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

O. 808.564.1300
F. 808.564.1393

SERVCO.COM

Senator Laura Thielen, Chair
Committee on Government Operations

Senator Lorraine Inouye, Chair
Committee on Transportation

RE: **SB 661 – Relating to Fuel Cell Electric Vehicles- In Support**
Tuesday, February 12, 2019; 3:15 PM; Conference room 225

Aloha Chairs Thielen and Inouye, Vice Chair Harimoto and members of the committees,

Servco Pacific Inc. (“Servco”) appreciates this opportunity to submit testimony in **strong support** of SB 661, which expands the definition of electric vehicle to include a fuel cell electric vehicle and allows for fuel cell electric vehicles to be parked in designated electric vehicle parking spaces, among other things.

Servco introduced the Toyota Mirai fuel cell vehicle in 2016, making Hawaii the 2nd state in the U.S. to receive this zero emission vehicle. In 2018, Servco completed construction of the State’s first publicly accessible hydrogen fueling station. The station was funded solely by Servco. Producing hydrogen from water using a renewable source of electricity helps Hawaii become more self-reliant and reduces our dependency on imported oil.

By expanding the definition of an electric vehicle to include fuel cell electric vehicles, ensures Hawaii’s commitment to a diversified partnership between fuel cells, hybrids, and all-battery electric vehicles to drastically improve transportation efficiency and reduce carbon emissions in our State.

We respectfully request your support of SB 661. 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. Thank you.

SB-661

Submitted on: 2/11/2019 2:54:05 PM

Testimony for GVO on 2/12/2019 3:15:00 PM

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

Comments:



John Uekawa, President
Dave Roll, Executive Director



HADA testimony in **Strong Support** of **SB 661**
Relating to Fuel Cell Electric Vehicles
Submitted to the Senate Committee on Government Operations
and the Senate Committee on Transportation
For the public hearing, 3:15 p.m. Tuesday, February 12, 2019^[SEP]
in Conference room 225, Hawaii State Capitol

Chairs Theilen and Inouye, Vice Chairs Inouye and Harimoto, and members of the committees:

Dealers, customers and auto manufacturers are making the investments in renewable fuel vehicles. Public policies encouraging these investments are helping to improve the customer uptake process.

HADA is in strong support of this bill which seeks to include hydrogen fuel cell electric vehicles in the category of electric vehicle and thus owners can avail themselves of the ownership benefits of driving an electric vehicle.

A UH research study, authored by Sherilyn Wee, Makena Coffman, and Sumner La Croix, is one of the nation's most definitive studies on EV adoption and the effects of public policies like HOV lane access and free parking for electric vehicles.

Their research, along with insights from new car sales personnel in Hawaii, shows that these public policy benefits (HOV lane access and free parking) are motivating factors in the choice of new vehicles by Hawaii customers.

Wee, Coffman and La Croix quote from an early study in noting the following:

Several regional analyses support the findings that HOV lane access, regardless of actual passenger count, is important to EV sales. Looking at the 2010–2013 time period, Sheldon and DeShazo (2016) attribute a quarter of California's EV registrations to its HOV lane access policy. Prior studies on HEVs similarly find that consumers are willing to pay a premium for HOV lane access. Bento et al. (2014) estimate that HEV owners in Southern California gain \$473 annually from purchasing a sticker to access HOV lanes,

regardless of vehicle passenger count. Similarly, Shewmake and Jarvis (2014) find that in 2005 HOV lane access could have been sold to Californians for \$5800 per sticker, instead of being freely allocated to HEV owners. In a study of Virginia, Diamond (2008) finds that the impact of HOV lane access is highly dependent on the local provision of HOV lanes.

The researchers later point out that the findings on HOV access are highly contextual and note the following:


Policy instruments vary in the way that they affect EV consumers. There are some that are accrued universally while others are highly contextual, depending on local conditions and EV consumer driving patterns. Policy instruments that accrue to all EV consumers in a state include vehicle purchase incentives, home charger subsidies, reduced VLT or registration fees, emissions inspection exemptions, and annual EV fees. Policy instruments that are experienced by only some EV consumers in a state include HOV lane access, designated or free parking and TOU rates. The potential benefits of HOV lane access are highly circumstantial, depending on local provision of HOV lanes, congestion on other roads and individual driving needs. This is similarly true of designated or free parking in terms of parking costs and individual parking demands.

Wee, Coffman, and La Croix reported that the present value of HOV access in states over a 6-year vehicle ownership period, based on initial purchase value ranged from \$1,770 to \$3,880 with a mean value of \$2,780.

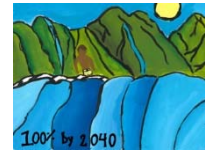
While Hawaii has the second highest customer uptake rate (per capita) for renewable fuel vehicles, second only to California, the number still remains lower than 1% of the total personal transportation vehicles on the roadways.

Well-crafted public policies encouraging customer benefits of ownership of renewable fuel vehicles, including HOV lane access with single occupancy, and free parking provisions for owners of hydrogen fuel cell electric vehicles, will show Hawaii's commitment to clean energy. It is energy that can be produced in Hawaii.

The members of the Hawaii Automobile Dealers Association (HADA) thank the sponsors and supporters of SB661 and respectfully ask that the committee give the measure favorable consideration and pass it forward.

Respectfully submitted, 

David H. Rolf (on behalf of the members of HADA)



**SENATE COMMITTEE ON GOVERNMENT OPERATIONS
SENATE COMMITTEE ON TRANSPORTATION**

February 12, 2019, 3:15 P.M.

Room 225

(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF SB 661

Aloha Chairs Thielen and Inouye, and members of the Committees:

Blue Planet Foundation supports Senate Bill 661, which would extend certain priority considerations and incentives that are currently only available to battery electric vehicles to fuel cell electric vehicles. This bill would exempt fuel cell electric vehicles from payment of parking fees and high occupancy vehicle (HOV) lane restrictions, increase the priority to be placed on fuel cell electric vehicles for state and county entities purchasing new vehicles, and allow for fuel cell electric vehicles to be parked in designated electric vehicle parking spaces.

Blue Planet Foundation is a local, mission-driven nonprofit committed to clearing the path for 100% clean energy in Hawaii both in the electricity sector and the transportation sector. We recognize that to reach Hawaii's clean transportation goals and do our part in mitigating climate change, we should incentivize all zero-emission vehicles that can be powered by renewable energy—e.g., both fuel cell electric vehicles and battery electric vehicles. These technologies will help us to maximize renewables utilized on the electric grid and minimize petroleum use and emissions from our ground transportation sector.

Like battery electric vehicles, fuel cell electric vehicles are powered by an electric motor. In a fuel cell vehicle, pressurized hydrogen gas is chemically fused with oxygen from the air to make water, which in the process generates an electrical current that can power the electric motor. Just as battery electric vehicles will be increasingly powered by renewables as Hawaii reaches its 100% renewable portfolio standard by 2045, hydrogen vehicles can also get cleaner alongside them, as more hydrogen is produced by renewable energy resources.

Senate Bill 661 is important to ensure that fuel cell electric vehicles are part of the planning conversation around Hawaii's transition to 100% renewable ground transportation. This bill rightly expands incentives and benefits for zero-emission vehicles to more comprehensively encompass *all* zero-emission vehicles. Fuel cell electric vehicles have a vital role to play in Hawaii's clean transportation future, and they should receive the same ancillary benefits that are given to battery electric vehicles to spur adoption.

Thank you for the opportunity to testify.