

TESTIMONY BY:

JADE T. BUTAY
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

March 14, 2019
11:10 A.M.
State Capitol, Room 325

S.B. 661, S.D. 1
RELATING TO FUEL CELL ELECTRIC VEHICLES

House Committee(s) on Energy and Environmental Protection
and
Transportation

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

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 that is used in a vehicle powertrain for propulsion."

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.



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Representative Nicole Lowen, Chair
Representative Tina Wildberger, Vice Chair
Committee on Energy and Environmental Protection

Representative Henry Aquino, Chair
Representative Troy Hashimoto, Vice Chair
Committee on Transportation

RE: **SB 661 SD1 – Relating to Fuel Cell Electric Vehicles- In Support**
Thursday, March 14, 2019; 11:10 AM; Conference room 325

Aloha Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto and members of the committees,

Servco Pacific Inc. (“Servco”) appreciates this opportunity to submit testimony in **strong support** of SB 661 SD1, which includes fuel cell electric vehicles in the definition of “electric vehicles” and allows fuel cell electric vehicles the same benefits as electric vehicles.

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.

This bill aligns with Hawaii’s dedication 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 SD1. The passage of this measure will demonstrate Hawaii’s commitment to utilizing all clean transportation technology available to reach its clean energy goals. Thank you.



John Uekawa, President
Dave Roll, Executive Director



HADA testimony in **Strong Support** of SB 661 SD1
Relating to Fuel Cell Electric Vehicles
Submitted to the House Committee on Energy and Environmental Protection
and the House Committee on Transportation
For the public hearing, 11:10 a.m. Thursday, March 14, 2019
in Conference room 415, Hawaii State Capitol

Chairs Lowen and Aquino, Vice Chairs Wildberger and Hashimoto 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 SD1 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)



Email: communications@uluPono.com

HOUSE COMMITTEES ON ENERGY & ENVIRONMENTAL PROTECTION AND TRANSPORTATION
Thursday, March 14, 2019 — 11:10 a.m. — Room 325

UluPono Initiative Strongly Supports SB 661 SD 1, Relating to Fuel Cell Electric Vehicles

Dear Chair Lowen, Vice Chair Wildberger, Chair Aquino, Vice Chair Hashimoto, 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 SD 1, 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: March 13, 2019

TO: Representative Nicole E. Lowen
Chair, Committee on Energy & Environmental Protection

Representative Henry J. C. Aquino
Chair, Committee on Transportation

Submitted Via Capitol Website

FROM: Tiffany Yajima

RE: **S.B. 661, S.D.1 – Relating to Fuel Cell Electric Vehicles**
Hearing Date: Thursday, March 14, 2019 at 11:10 a.m.
Conference Room: 325

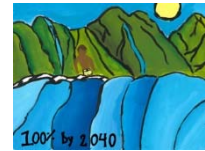
Dear Chair Lowen, Chair Aquino and Members of the Joint Committees:

We submit these comments 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.

The Alliance is in support of S.B. 661, S.D.1, which would adopt in statute a definition of “fuel cell electric vehicle” to encourage early adoption of fuel cell electric vehicles. Automobile manufacturers have invested heavily in the research and development of hydrogen technology and are very supportive of efforts to increase the availability of passenger fuel cell electric vehicles in Hawaii.

Electric vehicles play an important role in achieving our energy and environmental goals. Today, there are 42 models of electric vehicles available nationwide, including 15 battery electric, 24 plug-in hybrid electric and 3 fuel cell electric models. By 2021, it is anticipated that at least 11 automakers will have hydrogen fuel cell vehicles available on the market. Additional policies such as HOV lane access and parking benefits that incentivize early adoption of fuel cell electric vehicles are critical to the adoption and deployment of these vehicles.

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



**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
HOUSE COMMITTEE ON TRANSPORTATION**

March 14, 2019, 11:00 A.M.
Room 325
(Testimony is 1 page long)

TESTIMONY IN SUPPORT OF SB 661 SD1

Aloha Chair Lowen, Chair Aquino, and members of the Committees:

Blue Planet Foundation supports Senate Bill 661 SD1, 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.

info@blueplanetfoundation.org

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SB-661-SD-1

Submitted on: 3/13/2019 10:03:28 AM

Testimony for EEP on 3/14/2019 11:10:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Anne Lopez	Individual	Support	Yes

Comments:

Incentivizing consumers to purchase vehicles that have a minimal footprint is crucial to developing the critical mass needed to get cars like the fuel cell vehicles available in the market. I purchased a prius in 2004 and benefited from federal credits. At that time it was rare to see a prius on the road. Now the prius is ubiquitous. I hope the same becomes true for the fuel cell vehicles.

Dear Honorable Committee Members:

Please support SB661 SD1. As an individual which supports Hawaii Clean Energy Initiative by 2045. Fuel Cell Vehicles is another form in which we as a State can achieve these goals. As well it is a clean energy producer for the State of Hawaii. Supporting Fuel Cell Vehicles now can lead into more alternative fuel production in the state.

Thank you for the opportunity to testify.

SB-661-SD-1

Submitted on: 3/12/2019 11:11:14 AM

Testimony for EEP on 3/14/2019 11:10:00 AM

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

Comments:

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

Presented to the House Committees on Energy & Environmental Protection and
Transportation at the public hearing to be held on Thursday, March 14, 2019 at 11:10 a.m.
in Conference Room 325, Hawaii State Capitol

Aloha Chair Lowen, Chair Aquino, 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.

Having recently leased a fuel cell vehicle I do have a personal interest in the passage of SB661 and appreciate the effort being taken to expand the definition of qualifying vehicles. It is important to grant owners of fuel cell vehicles incentives similar to electric vehicles to encourage more folks to choose clean technology. My journey from our 18 MPG car to a Fuel cell began a year ago looking at the options for electric and fuel cell vehicles. Due to our driveway configuration and car parking limitations a garage electric charging station was not practical for the primary vehicle. Driving a fuel cell vehicle is impressive and it is certainly easy to get excited about the use of Hydrogen generated with electricity from PV solar panels for re-use in vehicles as the ultimate goal for a 100% renewable energy source. My experience driving a fuel cell vehicle leaves me confident that there will be an expansion of Hydrogen fueling stations and vehicles similar to what we are currently seeing with all-electric vehicles.

Thank you in advance for your efforts via SB 661 to update ACT 168 to qualify fuel cell vehicles as an electric vehicle and the opportunity to submit written testimony on this matter.

William N. Copeland

e-mail WNCopeland@icloud.com



To: The House Committees on Energy and Environmental Protection, and Transportation
From: Brodie Lockard, Hawaii State Climate Lead, Organizing for Action
Date: Thursday, March 14, 2019, 11:10 am

In opposition to SB661 SD1

LATE

Dear Chair Lowen, Vice Chair Wildberger, and Committee Members—

Organizing for Action opposes SB661 SD1 and offers comments.

Fuel cell vehicles have not lived up to their potential. The development and penetration of electric vehicles have shot past that of hydrogen and fuel cell vehicles.

Nearly every major automaker said in 2017 that they plan to move to all-electric vehicles (EVs), and will each introduce 10 to 50 new EV models within one to seven years. Volkswagen and General Motors have already scheduled the end of their gasoline vehicle production.

As a planet, we don't have time to be supporting an iffy transportation technology when there's a far more mature one that is gaining rapid acceptance; has widespread infrastructure in place or planned; and enjoys a bright, immediate future planned by every significant automaker.

Also, the definition of "Alternative fuel" on page 2 should not include fuels that produce emissions, like "natural gas, liquefied petroleum gas, ... biodiesel, mixtures containing twenty per cent or more by volume of biodiesel with diesel or other fuels."

Don't waste our time and money on fuel cell vehicles. Please defer SB661 SD1.

Thank you for the opportunity to testify.

Brodie Lockard
Hawaii State Climate Lead, Organizing for Action

SB-661-SD-1

Submitted on: 3/13/2019 6:44:08 PM

Testimony for EEP on 3/14/2019 11:10:00 AM



Submitted By	Organization	Testifier Position	Present at Hearing
Andrea Quinn	Individual	Support	No

Comments:

Dear Honorable Committee Members:

Please support SB661. Coral reefs are dying in large part to warming oceans, and valuable coastline is eroding due to sea level rise. Climate change is already occurring. Promoting the use of electric vehicles is an important step in mitigating global warming.

Thank you for the opportunity to present my testimony.

Andrea Quinn

Kihei

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
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March 14, 2019

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Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer *EW*

The Honorable Nicole E. Lowen, Chair
and Members
Committee on Energy & Environmental Protection
Hawaii State Capitol, Room 325
Honolulu, Hawaii 96813

The Honorable Henry J. C. Aquino
and Members
Committee on Transportation
Hawaii State Capitol, Room 325
Honolulu, Hawaii 96813

LATE

Dear Chair Lowen, Chair Aquino and Members:

Subject: Senate Bill 661, Senate Draft 1, Relating to Fuel Cell Electric Vehicles

The Board of Water Supply (BWS) supports Senate Bill (SB) 661, Senate Draft (SD) 1, which would elevate procurement priority for fuel cell vehicles for State and County vehicle purchases. This bill promotes sustainable transportation in Hawaii by encouraging the use of renewable energy and reducing our dependence on imported fossil fuels.

The BWS is the largest water utility in our State and we do our part in seeking cleaner transportation options for our fleet of vehicles and equipment to help mitigate climate change that could adversely affect our precious water resources.

Fuel cell vehicles has a role in helping Hawaii government fleets minimize vehicle emissions and reach 100% renewable energy use by 2045. Passage of this Bill will demonstrate Hawaii's commitment to a clean energy future.

Thank you for this opportunity to testify on SB 661, SD 1.

Very truly yours,

Ernest Y. W. Lau, P.E.
Manager and Chief Engineer

SB-661-SD-1

Submitted on: 3/14/2019 9:52:32 AM

Testimony for EEP on 3/14/2019 11:10:00 AM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Alisa Kimura	Individual	Support	No

Comments:

Testimony in SUPPORT of SB661 Relating to Fuel Cell Electric Vehicles

Presented to the House Committees on Energy & Environmental Protection and Transportation at the public hearing to be held on Thursday, March 14, 2019 at 11:10 a.m.

in Conference Room 325, Hawaii State Capitol

Aloha Chair Lowen, Chair Aquino, and Members of the Committees:

I would like to testify in **strong support** of SB661 which will include hydrogen fuel-cell vehicles in the definition of "electric vehicles". Expanding the definition of "electric vehicles" to include zero emission hydrogen vehicles clearly demonstrates Hawaii's commitment to utilizing all available clean transportation technology to reach our clean energy goals. Using a renewable source of electricity like solar to produce hydrogen from water decreases need for imported fossil fuel. Hawaii's clean energy goals are akin to my personal philosophy and I am dedicated to pursuing sustainable resources for future generations. I hope you feel the same.

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