

Written Statement of
David H. Molinaro
Acting Director
Hawaii Center for Advanced Transportation Technologies
before the
Senate Committee on Energy, Economic Development, and Tourism
Friday March 13, 2020
2:45 p.m.
State Capitol, Conference Room 414
In consideration of
HB2681, HD1
RELATING TO ENERGY.

Chair Wakai, Vice Chair Taniguchi, and Members of the Committee.

HCATT **supports** HB2681, HD1 as it directly relates to HI revised statute §196-10, Hawaii renewable hydrogen program legislative guidance to design, implement, and administer hydrogen demonstration projects, including infrastructure for the production, storage and refueling of hydrogen vehicles. The development and deployment of hydrogen infrastructure on Oahu and a neighbor Island will serve a catalyst in further expanding the State's renewable energy technology portfolio which will reduce its dependency on fossil fuels, promote financial independence, and be a foundation for an economy based on renewable energy technologies such as hydrogen.

Hydrogen and fuel cell systems are no longer considered research and development technologies. Countries throughout the world have embraced hydrogen as an integral part of their economic expansion, reducing their dependency on fossil fuels, and reducing CO₂ emissions.

In the United States, predominately in California, the adaptation of hydrogen fuel cell vehicles are in full swing with nearly 7,000 vehicles and almost 50 fueling station in use. According to the US Department of Energy Fuel Cell Technologies Office, the number of stations schedule for that state alone will increase to 1000 by 2030.

Ohio, South Carolina, New York, Connecticut, Massachusetts, Colorado, Utah, Texas and Michigan are all developing plans to expand hydrogen fuel cell integration and adoption. Hawaii has been a leader in hydrogen technologies and has one commercial hydrogen station and two federally funded stations used for research and development, the largest of which belongs to HCATT and is located at Joint Base Pearl Harbor Hickam.

This Bill is an important continuation of the legislative mandate of §196-10. HCATT comments the issuance of general obligation bonds would likely attract more private sector interest for the project and be a significant step in advancing the deployment and adoption of hydrogen fuel cell technologies and supporting Hawaii's 2045 RPS mandate.

Thank you for the opportunity to present these comments



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TO:

Committee on Energy, Economic Development, and Tourism
Senator Glenn Wakai, Chair
Senator Brian T. Taniguchi, Vice Chair

FROM: HAWAII FOOD INDUSTRY ASSOCIATION
Lauren Zirbel, Executive Director

DATE: March 13, 2020
TIME: 2:45pm
PLACE: Conference Room 414

RE: HB2681 HD1 Relating to Energy

Position: Support

The Hawaii Food Industry Association is comprised of two hundred member companies representing retailers, suppliers, producers, and distributors of food and beverage related products in the State of Hawaii.

We support this measure to allow the Hawaii Technology Development Corporation to issue revenue bonds for the creation of hydrogen facilities. Diversifying our fuel options can help make our energy sector more flexible and resilient. We thank you for the opportunity to testify.



SanHi

GOVERNMENT STRATEGIES

A LIMITED LIABILITY LAW PARTNERSHIP

DATE: March 13, 2020

TO: Senator Glenn Wakai
Chair, Committee on Energy, Economic Development, and Tourism
Submitted Via Capitol Website

FROM: Tiffany Yajima

RE: **H.B. 2681, H.D.1 – Relating to Energy**
Hearing Date: Friday, March 13, 2020 at 2:45p.m.
Conference Room: 414

Dear Chair Wakai and Members of the Committee on Energy, Economic Development, and Tourism:

On behalf of the Alliance for Automotive Innovation (“Alliance”) we submit this testimony in **support** of H.B. 2681, H.D.1, which authorizes the issuance of revenue bonds and appropriates funding for the construction of hydrogen fueling stations.

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.

The Alliance supports the development of hydrogen as a fuel for motor vehicles, and remains ready and willing to assist in the pursuit of hydrogen as a feasible alternative fuel for Hawaii. We recognize the State has difficult choices to make on the allocation of funds, and also recognize the work that public and private stakeholders have done to advance hydrogen for Hawaii. While the automotive industry has made and continues to make a significant investment in hydrogen, the Alliance also recognizes the importance of government support for infrastructure projects like hydrogen fueling stations.

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



John Uekawa, President
Dave Rolf, Executive Director

HADA Testimony in SUPPORT of HB2681, HD1 RELATING TO ENERGY

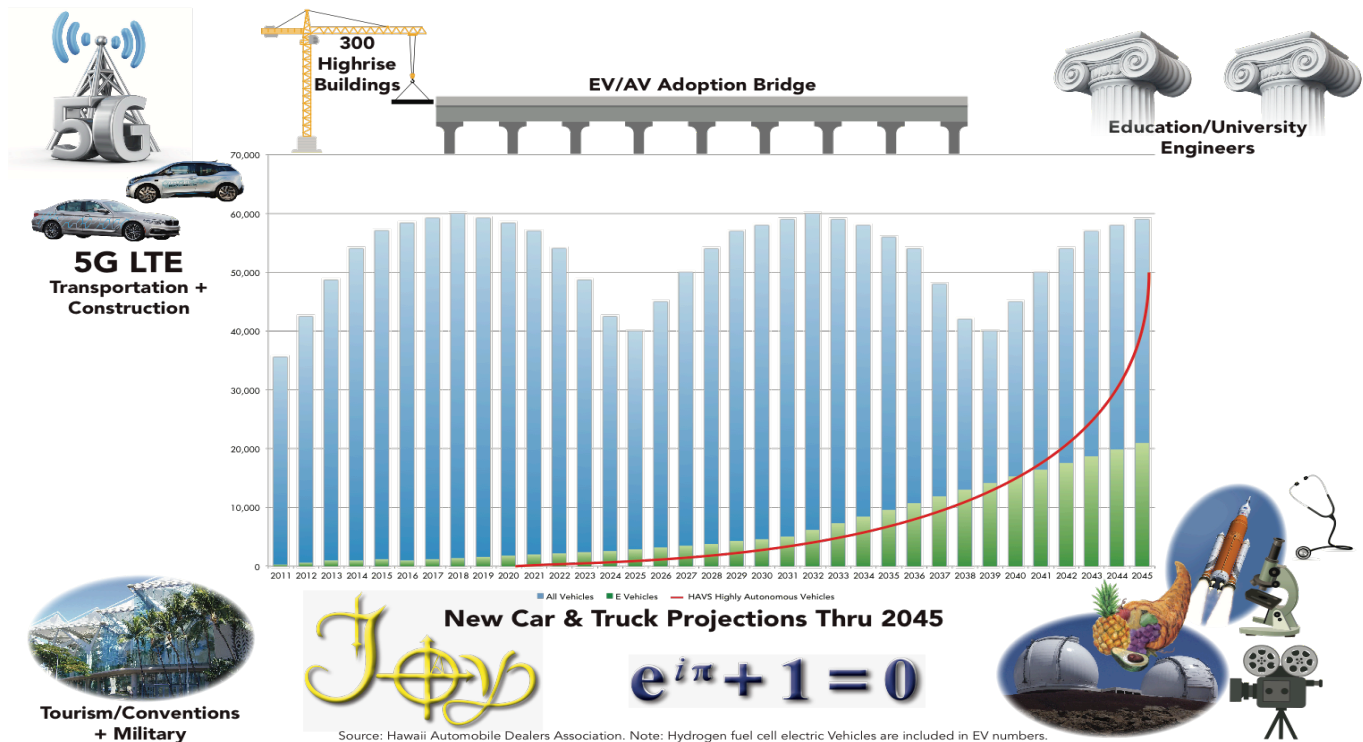
Presented to the Senate Committee on Energy, Economic Development and Tourism
at the Public Hearing 2:45 p.m., Friday, February 13, 2020
in Room 414 Hawaii State Capitol

by David H. Rolf for members of the Hawaii Automobile Dealers Association,
Hawaii's franchised new car dealers, who provide sales, warranty work and other factory-certified maintenance service for Hawaii's privately-owned and fleet-owned cars and light trucks

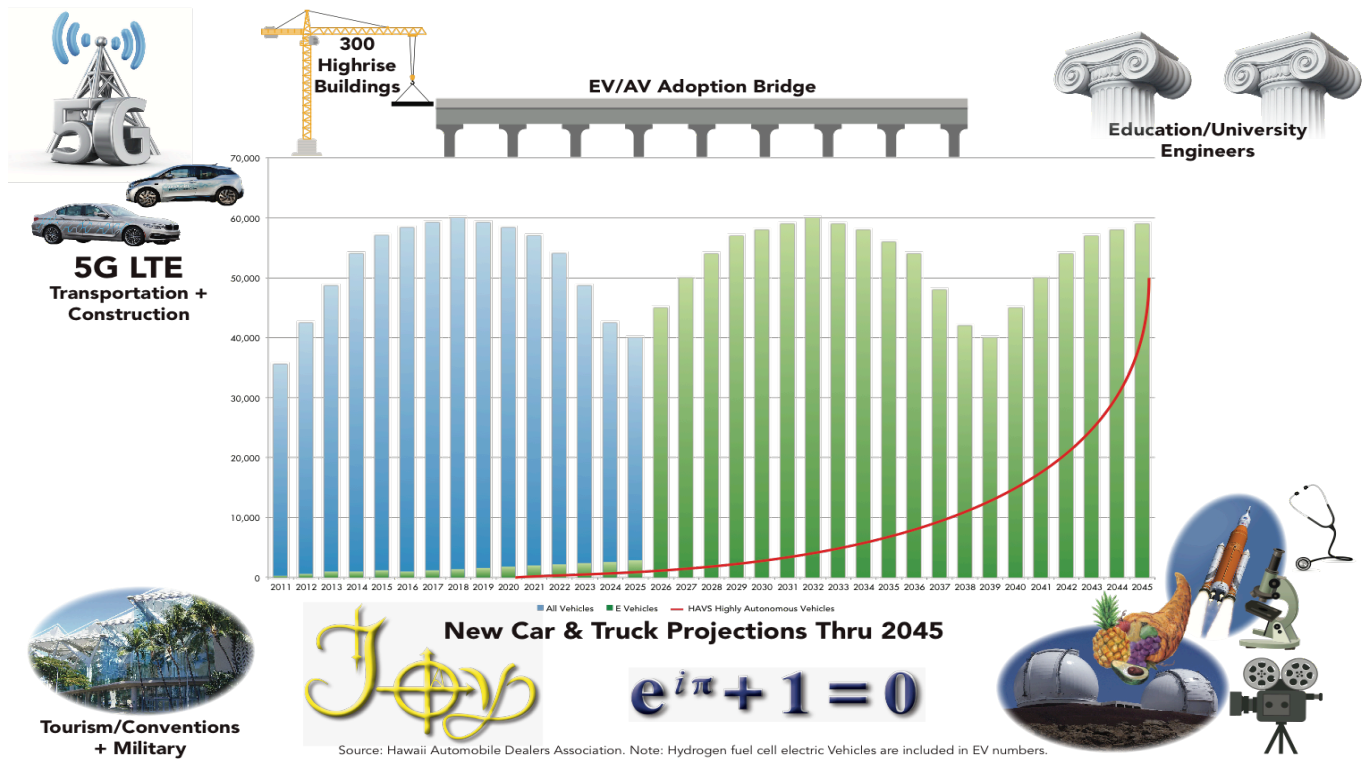
Chair Wakai, Vice chair Tanaguchi and members of the committee:

HADA members offer their support for HB2681, HD1 which authorizes the issuance of revenue bonds pursuant to part III of chapter 39, HRS, and appropriates funds to the Hawaii Technology Development Corporation for the purpose of constructing one Oahu and one neighbor island electrolysis hydrogen production, storage, and dispensing facility to be managed by the Hawaii Center for Advanced Transportation Technologies. Appropriates funds.

HADA offers the following graphic to provide insights. HADA refers to the graphic as the Rosetta Stone. It shows HADA's anticipated customer uptake 2011 through 2045 of electric vehicles (including hydrogen fuel-cell electric vehicles), internal combustion/hybrid electric vehicles, and autonomous vehicles.



However, in order reach the aspirational goals of 100% clean energy vehicles by 2045, the graphic, and adoption curve of battery electric and hydrogen fuel cell electric vehicles would need to look like this (green bars).



HADA dealers believe that this bill offers the opportunity for the State to provide a hydrogen production storage and dispensing facility that would provide a valuable role in launching hydrogen as a fuel for ground transportation, and assist the State in promoting clean energy in transportation.

We note, though, that is illogical to assume that customer uptake in 2025 will take such a dramatic upturn, as shown above.

More likely, the uptake will follow the first graphic. The transition to renewable fuels will be an evolution, not a revolution.

Likely, a fleet contract for hydrogen will be necessary for government revenue bonds to be repaid at the outset.

Thank you for the opportunity to testify in SUPPORT of HB2681, HD1. We respectfully ask that you pass the bill forward for further consideration.

Respectfully submitted,
 David H. Rolf
 On behalf of the Hawaii Automobile Dealers Association

HADA
Making Hawaii Better Together



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Senator Glenn Wakai, Chair
Senator Brian Taniguchi, Vice Chair
Committee on Energy, Economic Development and Tourism

**RE: HB 2681 HD1 Relating to Energy – In Support, request amendments
March 13, 2020; Conference room 414; 2:45 P.M.**

Aloha Chair Wakai, Vice Chair Taniguchi and members of the committee:

Servco Pacific Inc. appreciates this opportunity to offer testimony in support of HB 2681 HD1 which authorizes the issuance of revenue bonds pursuant to part III of chapter 39, HRS, and appropriates funds to the Hawaii Technology Development Corporation for the purpose of constructing one Oahu and one neighbor island electrolysis hydrogen production, storage and dispensing facility to be managed by the Hawaii Center for Advanced Transportation Technologies.

This bill aligns with Hawaii's dedication to improve transportation efficiency and reduce carbon emissions in our State. We would like to ask the committee's consideration of the following amendments:

- The station should meet or exceed all current SAE international hydrogen fueling standards and protocols, including but not limited to J2601, J2719 and J2799; and
- The station should meet or exceed Vehicle Manufacturer's fueling standards and protocols for vehicles which are intended to use the station

In 2018, Servco launched the first publicly accessible hydrogen fueling station in Mapunapuna. The station was funded solely by Servco. Producing hydrogen from water using a renewable source of electricity helps Hawaii become more self-reliant and reduce our dependency on imported oil.

We respectfully ask for your support in passing HB 2681 HD1 with our requested amendments to demonstrate Hawaii's commitment to its clean energy goals. Thank you.

Peter Dames
Executive Vice President



LATE

March 13, 2020

Senator Glenn Wakai, Chair
Senator Brian T. Taniguchi, Vice Chair
Senate Committee on Energy, Economic Development & Tourism

Support of and Proposed Amendment to HB 2681, HD1 RELATING TO ENERGY (Authorizes the issuance of revenue bonds pursuant to part III of chapter 39, HRS, and appropriates funds to the Hawaii Technology Development Corporation for the purpose of constructing one Oahu and one neighbor island electrolysis hydrogen production, storage, and dispensing facility to be managed by the Hawaii Center for Advanced Transportation Technologies. Takes effect on 7/1/2112. [HD1])

ETT Hearing: Friday, March 13, 2020, 2:45 p.m., in Conference Room 414

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers and utility companies. LURF's mission is to advocate for reasonable, rational and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

Kama'aina LURF members have generated and used renewable energy for over 100 years. LURF's members are also the leaders in Hawaii's renewable energy research and development, technology, generation, transmission and provide renewable energy opportunities for agriculture, commercial, tourism and industrial developments.

LURF **supports HB 2681, HD1**, but respectfully requests **an amendment that would prohibit the counties from taking any actions that would interfere with the research, development, production, storage, dispensing and use of hydrogen and other forms of renewable gas.**

HB 2681, HD1. This measure authorizes the issuance of revenue bonds pursuant to part III of chapter 39, HRS, and appropriates funds to the Hawaii Technology Development Corporation for the purpose of constructing one Oahu and one neighbor island electrolysis hydrogen production, storage, and dispensing facility to be managed by the Hawaii Center for Advanced Transportation Technologies.

LURF's Position. The State has established a goal of achieving one hundred percent clean energy by 2045. Section 269-91, Hawaii Revised Statutes (HRS), identifies nine renewable energy resources, of which, five can be used in some form of gas: hydrogen, biogas, biomass, biofuels and geothermal. To reach Hawaii's renewable energy goals, Hawaii's renewable energy future must include all types of renewable energy resources, as defined by Section 269-91, HRS, including renewable gas resources such as hydrogen.

The development and deployment of hydrogen infrastructure described in this measure will serve to further expand the State's renewable energy portfolio and reduce dependency on fossil fuels.

We understand, however, that has been, and may be future attempts to pass county legislation that would frustrate the purposes of this bill, by severely restricting the further research, development, production, storage, dispensing and use of renewable natural gas, including hydrogen and also increase the costs of renewable gas energy for consumers.

Since it appears that the goal of this bill is to encourage the production of hydrogen, which is a renewable natural gas, LURF would respectfully recommend **an amendment to prohibit the counties from interfering with the research, development, production, storage, dispensing and use of hydrogen and other forms of renewable gas.**

Conclusion. In view of the above discussion, LURF **strongly supports HB 2681, HD1,** and respectfully requests that your Committee **adopt the above proposed amendments.**

Thank you for the opportunity to provide testimony relating to this measure.