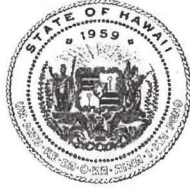


SB 2947

RELATING TO  
RENEWABLE HYDROGEN

DAVID Y. IGE  
GOVERNOR



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

February 16, 2016  
2:45 PM  
State Capitol, Room 229

**S.B. 2947**  
**RELATING TO RENEWABLE HYDROGEN**

Senate Committee(s) on Transportation and Energy  
& Economic Development, Environment and Technology

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The Department of Transportation (DOT) supports this bill which authorizes the director of finance to issue general obligation bonds in the sum of \$3,000,000 or so much thereof as may be necessary for fiscal year 2016-2017 for the development of an electrolysis process hydrogen production, storage, and dispensing facility.

S.B. 2947 provides funding to initiate hydrogen production and dispensing, critical infrastructure required to support the fleet vehicle upgrades planned by the DOT near the Honolulu International Airport to establish the State's first hydrogen production, compression, storage and dispensing facility.

This bill helps Hawaii meet its renewable energy goals.

Thank you for the opportunity to offer these comments.

Testimony by:

FORD N. FUCHIGAMI  
DIRECTOR

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

IN REPLY REFER TO:



**DEPARTMENT OF BUSINESS,  
ECONOMIC DEVELOPMENT & TOURISM**

DAVID Y. IGE  
GOVERNOR

LUIS P. SALAVERIA  
DIRECTOR

MARY ALICE EVANS  
DEPUTY DIRECTOR

No. 1 Capitol District Building, 250 South Hotel Street, 5th Floor, Honolulu, Hawaii 96813  
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Statement of  
**LUIS P. SALAVERIA**  
**Director**  
Department of Business, Economic Development, and Tourism  
before the  
**SENATE COMMITTEES ON TRANSPORTATION AND ENERGY AND ECONOMIC  
DEVELOPMENT, ENVIRONMENT, AND TECHNOLOGY**

Tuesday, February 16, 2016  
2:45 p.m.  
State Capitol, Conference Room 229  
in consideration of  
**SB 2947**

**RELATING TO RENEWABLE HYDROGEN**

Chairs Inouye and Wakai, Vice Chairs Gabbard and Slom, and Members of the Committees.

The Department of Business, Economic Development and Tourism (DBEDT) respectfully offers comments on Senate Bill 2947, which authorizes the director of finance to issue general obligation bonds in the sum of \$3,000,000 or so much thereof as may be necessary and the same sum or so much thereof as may be necessary is appropriate for fiscal year 2016-2017 for the development of an electrolysis process hydrogen production, storage, and dispensing facility.

DBEDT supports the development of hydrogen infrastructure. Hydrogen transportation supports both the decarbonization of the transportation sector as well as being an enabler of increased penetration of intermittent renewable energy.

DBEDT respectfully defers to HTDC on the cost benefit of advancing the commercialization of hydrogen transportation as it relates to the particular project costs that the requested funds are in support of.

DBEDT respectfully defers to the Department of Budget and Finance for the impact of the proposed \$3,000,000 general obligation bond appropriation on the Administration's priorities.

Thank you for the opportunity to provide these comments regarding SB 2947.



WRITTEN ONLY

DAVID Y. IGE  
GOVERNOR

WESLEY K. MACHIDA  
DIRECTOR

RODERICK K. BECKER  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**TESTIMONY BY WESLEY K. MACHIDA**  
**DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE**  
**TO THE SENATE COMMITTEES ON TRANSPORTATION AND ENERGY AND**  
**ECONOMIC DEVELOPMENT, ENVIRONMENT, AND TECHNOLOGY**  
**ON**  
**SENATE BILL NO. 2947**

February 16, 2016  
2:45 P.M.

**RELATING TO RENEWABLE HYDROGEN**

Senate Bill No. 2947 authorizes the issuance of general obligation bonds and makes an appropriation for the development of an electrolysis process hydrogen production, storage, and dispensing facility and appropriates funds for the operation of the facility.

The Department has a comment on this bill. To the extent that funding for this projects is not in the proposed Executive Budget, should this bill proceed or pass the Legislature, an amount for the corresponding annual debt service will need to be included in the Legislature's version of the budget.

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

**Servco Pacific Inc. testimony in SUPPORT of  
SB2947  
Relating to Renewable Hydrogen**

Presented to the Senate Committee on Transportation &  
Energy and Economic Development, Environment & Technology  
at the public hearing to be held on Tuesday, February 16, 2016 at 2:45 p.m.  
in Conference Room 229, Hawaii State Capitol

Aloha Chair Inouye, Chair Wakai, Vice Chair Gabbard, Vice Chair Slom, and Members of the Committees:

Servco Pacific Inc. (Servco) **strongly supports** this measure that would appropriate money in the state budget to allow for construction of an electrolysis-derived hydrogen fueling station and operation of the facility once completed.

Passing SB2947 will help to establish a hydrogen production station concept that can set the standard for other government and private entities to follow. Servco has already begun construction of its own electrolysis-derived hydrogen fueling station on its property in Mapunapuna thereby demonstrating its long-term commitment to hydrogen technology as one viable option to expand Hawaii's use of renewable energy, especially in the transportation sector.

This appropriation of funds is a great first step in helping to meet or exceed the Hawaii Clean Energy Initiative's goal of reducing petroleum consumption in the transportation sector by 70% by 2030 thereby making a positive impact on current and future generations of Hawaii.

Servco strongly supports SB2947 and encourages all committee members to support passage of the bill.

Thank you for the opportunity to testify.

**Testimony of  
Gary M. Slovin / Mihoko E. Ito  
on behalf of  
The Alliance of Automobile Manufacturers**

DATE: February 15, 2016

TO: Senator Lorraine Inouye  
Chair, Committee on Transportation and Energy

Senator Glenn Wakai  
Chair, Committee on Economic Development, Environment, and Technology

*Submitted Via [TREtestimony@capitol.hawaii.gov](mailto:TREtestimony@capitol.hawaii.gov)*

RE: **S.B. 2947 – Relating to Renewable Hydrogen**  
**Hearing Date: Tuesday, February 16, 2016, 2:45 p.m.**  
**Conference Room: 229**

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Dear Chair Inouye, Chair Wakai and members of the Joint Committees:

On behalf of the Alliance of Automobile Manufacturers (“Alliance”) we submit these comments in regard to S.B. 2947. 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.

The Alliance is very supportive of efforts to support the development of Hydrogen as a fuel for motor vehicles. We are aware that the state administration and the Legislature are supportive of the development of alternative fuels. We defer to the Legislature as to whether this measure is needed to promote the development of Hydrogen but remain ready and willing to help in the pursuit of Hydrogen as a feasible alternative fuel. The industry has invested billions of dollars in the research and development of Hydrogen and believes that it is one of the fuels that has potential to be an alternative to fossil fuels.

Thank you for the opportunity to testify.

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Gary M. Slovin  
Mihoko E. Ito  
C. Mike Kido  
Tiffany N. Yajima

999 Bishop Street, Suite 1400  
Honolulu, HI 96813  
(808) 539-0840



Statement of  
**Robbie Melton**  
Executive Director & CEO  
High Technology Development Corporation  
before the  
**SENATE COMMITTEES ON TRANSPORTATION AND ENERGY  
AND  
ECONOMIC DEVELOPMENT, ENVIRONMENT, AND TECHNOLOGY**  
Tuesday, February 16, 2016  
2:45 p.m.  
State Capitol, Conference Room 229

in consideration of  
**SB2947**

**RELATING TO RENEWABLE HYDROGEN.**

Chairs Inouye and Wakai, Vice Chairs Gabbard and Slom, and Members of the Committees.

The High Technology Development Corporation (HTDC) **supports with requested amendments** SB2947, which authorizes the director of finance to issue general obligation bonds in the sum of \$3,000,000 or so much thereof as may be necessary and the same sum or so much thereof as may be necessary is appropriate for fiscal year 2016-2017 for the development of an electrolysis process hydrogen production, storage, and dispensing facility, provided that its passage does not replace or adversely impact priorities indicated in the Executive Budget.

For the past decade, HTDC's Hawaii Center for Advanced Transportation Technologies (HCATT) program has been recognized as a national leader in hydrogen demonstration projects. HCATT projects include the renewable hydrogen refueling station at Joint Base Pearl Harbor – Hickam, three hybrid hydrogen fuel cell buses, and a hydrogen fuel cell refueling truck. HCATT has been a strong supporter for hydrogen and has the expertise to deliver on projects. HCATT, together with the State Energy Office, has led the hydrogen working group gathering local stakeholders working together to improve Hawaii's hydrogen infrastructure. Furthermore, last year, Act 098 designated the HCATT Director as the State Hydrogen Implementation Coordinator.

SB2947 provides funding to initiate hydrogen production and dispensing, critical infrastructure required to support the fleet vehicle upgrades planned by the State Department of Transportation, Airports Division. The two departments are collaborating to establish the State's first hydrogen production compression storage and dispensing facility near the Honolulu International Airport, producing pure, carbon free, hydrogen from renewable energy (on-site photo voltaic and custom wind power).

SB2947 signals a commitment to the people of Hawaii that the State is serious about moving Hawaii's transportation sector to clean fuel by setting the example, just as Hawaii's private sector has committed by bringing in hydrogen vehicles and hydrogen fuel cell agricultural applications to our communities.

HTDC comments that depositing funds into the HTDC special fund would require a temporary increase in the special fund ceiling equivalent to the appropriation. Alternatively, a dedicated special fund may be established.

Thank you for the opportunity to offer these comments.



**Testimony in SUPPORT of SB2947  
Relating to Renewable Hydrogen**

Presented to the Senate Committee on Transportation &  
Energy and Economic Development, Environment & Technology  
at the public hearing to be held on Tuesday, February 16, 2016 at 2:45 p.m.  
in Conference Room 229, Hawaii State Capitol

Aloha Chair Inouye, Chair Wakai, Vice Chair Gabbard, Vice Chair Slom, and Members of the Committees:

I'm writing in **strong support** of SB2947 that authorizes the issuance of GO bonds and makes an appropriation for the development of an electrolysis process hydrogen production, storage, and dispensing facility and appropriates funds for the operation of the facility.

Through a process like electrolysis, hydrogen can be produced and consumed at virtually zero impact to our environment. This means that hydrogen as an energy carrier can play a meaningful role in reducing our dependency on imported fuels and enabling sustainable energy independence for Hawaii.

Whether on-site or from the grid (or both), the electrolysis process at these stations can be powered using renewable electricity. If from the grid, we can use excess solar power produced during the day (or wind in the evening) to make hydrogen fuel and thereby effectively storing the energy to use in vehicles later. In this sense, these stations could help Hawaii use its resources more efficiently by helping to avoid curtailment issues and mitigate over-generation issues associated with the increasingly available rooftop solar power.

In terms of ground transportation, hybrids, fuel cell and all-battery electric vehicles can make ideal partners in helping Hawaii increase efficiency and reduce carbon emissions in the transportation sector. Together, I'm sure they can help reach the State's goal of reducing petroleum consumption in the transportation section by 70 percent by 2030.

Please support the passage of SB2947 and help acknowledge hydrogen as a viable partner to existing renewable energy technology and Hawaii's clean energy goals.

Mahalo for the opportunity to testify in support of this measure.

**Kaala Coleman**

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**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 15, 2016 12:26 PM  
**To:** TRE Testimony  
**Cc:** casey.nishimura@gmail.com  
**Subject:** Submitted testimony for SB2947 on Feb 16, 2016 14:45PM  
**Attachments:** Nishimura Testimony Supporting SB2947.docx

**Categories:** Red Category

**SB2947**

Submitted on: 2/15/2016

Testimony for TRE/EET on Feb 16, 2016 14:45PM in Conference Room 229

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Casey Nishimura	Individual	Support	No

**Comments:**

Please note that testimony submitted less than 24 hours prior to the hearing, improperly identified, or directed to the incorrect office, may not be posted online or distributed to the committee prior to the convening of the public hearing.

Do not reply to this email. This inbox is not monitored. For assistance please email [webmaster@capitol.hawaii.gov](mailto:webmaster@capitol.hawaii.gov)