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ECONOMIC DEVELOPMENT & TOURISM**

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Statement of  
**LUIS P. SALAVERIA**  
Director

Department of Business, Economic Development, and Tourism  
before the  
**SENATE COMMITTEE ON WAYS AND MEANS**

Monday, April 6, 2015  
1:35p.m.  
State Capitol, Conference Room 211

in consideration of  
**HB 1296, HD 2, SD1**  
**RELATING TO ENERGY.**

Chair Tokuda, Vice Chair Kouchi, and Members of the Committees.

The Department of Business, Economic Development & Tourism (DBEDT) supports the intent of HB 1296, HD2, SD1. In its statutory role as energy resources coordinator for the State's energy planning, policy and strategy agenda, DBEDT will continue to work collaboratively with HCATT both as a member of the hydrogen implementation working group and through overarching energy systems and transportation strategic planning and analysis activities.

DBEDT is currently engaged in a transportation energy planning analysis, or "charrette" analysis, to provide the underlying assessments, analysis, and recommendations for an updated Hawaii Clean Energy Initiative transportation plan to significantly reduce the consumption of petroleum products in Hawaii's transportation sector. The analysis will include an exploration into the degree to which hydrogen fuel cell and plug-in electric vehicles can contribute to reductions in petroleum-based fuels in the transportation sector. Collaborating with HCATT on the planning and deployment of these advanced transportation technologies will greatly contribute to reducing Hawaii's reliance on petroleum in the transportation sector.

Thank you for the opportunity to testify on this measure.



Bill van den Hurk, President  
Dave Rolf, Executive Director

HADA testimony in STRONG SUPPORT of  
HB1296 HD 2 SD 1  
RELATING TO ENERGY

Presented to the Senate Committee on Ways and Means  
at the public hearing to be held  
1:35 p.m. Monday April 6, 2015  
in Conference Room 211, Hawaii State Capitol

by the Members of the Hawaii Automobile Dealers Association  
Hawaii's franchised new car dealers

Chair Tokuda, Vice Chair Kouchi, and Members of the Committee:

I am David Rolf, representing the members of the Hawaii Automobile Dealers Association, Hawaii's franchised new car dealers, who have remained strong in their support of the transition to clean energy for use in vehicles in Hawaii. Hydrogen fuel cell electric vehicles are key to that transition. HADA testifies in strong support of HB1296 HD 2, SD1.

At the January 2015 charrette, the working group meeting hosted by the Department of Business and Economic Development, the group concluded that Hawaii should designate a State Hydrogen Implementation Coordinator, similar to the coordinator in California, who was present at the meeting.

The director of the Hawaii Center for Advanced Transportation and Technology seemed the appropriate designee. The position is currently filled by Stan Osserman, a knowledgeable leader in the area of hydrogen fuel technology. He is also a general in the Hawaii National Guard, which provides him a clear understanding of the military's active role in Hawaii regarding the adoption of hydrogen fuel cell technology.

With this measure's designation of HCATT and its director as the hydrogen implementation coordinator, HADA is in strong support of HB1296 HD2, SD1.

Establishing hydrogen fueling station infrastructure in Hawaii to serve hydrogen fuel cell electric vehicles is key to the fulfillment of the ground transportation goals of the Hawaii Clean Energy Initiative. With the growing focus on these vehicles, a market base for these hydrogen vehicles could soon be established by the transition of some of the State of Hawaii's vehicle fleet, along with vehicles which could be added from the federal GSA fleet in Hawaii, and the addition of City and County of Honolulu vehicles which also could be transitioned to HFCEVs. This bill would facilitate the development of hydrogen fueling infrastructure to be created simultaneously, as HFCEVs are introduced to Hawaii.

The White House has already established a focus on adoption of such vehicles in the GSA fleet.

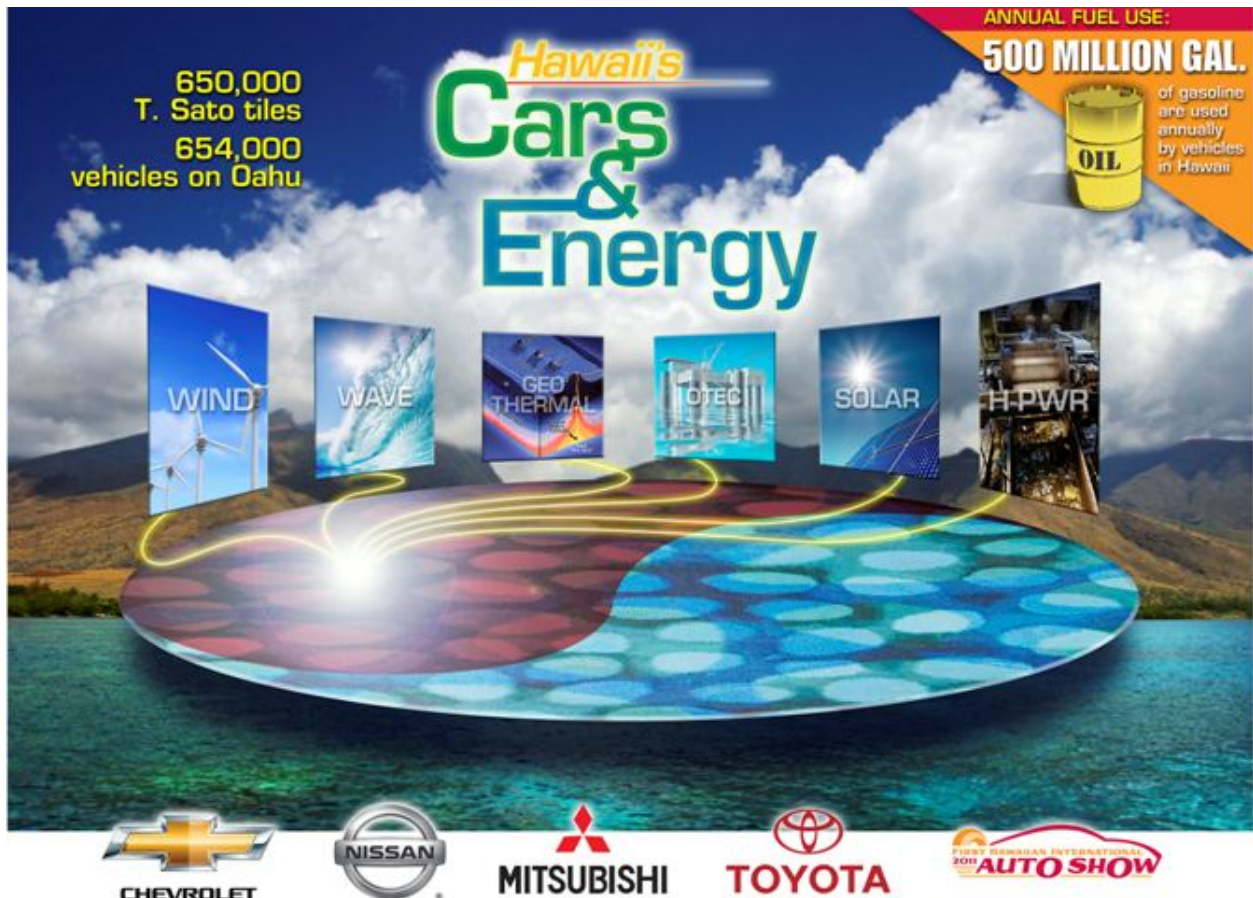
Hawaii is preparing to host the World Conservation Congress, September 1-10, 2016, and a story showing how the Federal, State and City and County governments work together to create hydrogen vehicle demand for hydrogen fueling stations is KEY at this time.

Certainly, Hawaii has been given much in the form of clean energy resources for the production of renewable fuels.

Hawaii, in fact, has been chosen by the U.S. Department of Energy for a focus on the development of hydrogen fuel cell electric vehicles. The State of California and an East Coast corridor around Boston are the two others areas in the country which have been chosen.

But it will be up to state, and local governments, auto dealers, private investors and the auto driving public in Hawaii to send a signal to the world's automobile manufacturers that Hawaii has prepared well for the transition to hydrogen.

Our renewable energy resources are there for all to see. Here's the chart from the auto show:



Hawaii has abundant, some would even say, a "first in the world" level of resources for hydrogen production from renewable sources-- wind, wave, sun, geothermal, ocean thermal, and even has significant capabilities for waste-to-energy production.

Once these resources are harnessed and used for productive purposes like propelling public and private transportation, then Hawaii's 500-million-gallon annual consumption of gasoline—illustrated in the upper right hand corner of the chart—will, along with the reduction in consumption from efficiencies being produced for gasoline engines--reduce our Hawaii gasoline consumption by 70%, to 150 million gallons, the goal of the Hawaii Clean Energy Initiative.

The graphic uses a prominent piece of art from the State's Capitol to illustrate the point of how many cars and trucks need to transition to clean energy in order to reach the goals of the HCEI:



*The Tadashi Sato mosaic at the state capitol is another piece of public art that HADA uses to illustrate a point. There are 650,000 blue and green tiles in the mosaic — there are 654,000 passenger vehicles registered on Oahu.*

Hawaii is iconic for its pristine environment. Beautiful Diamond Head is one of the most recognizable landmarks in the world. Just ask those in China or any place in the world.

We thus have a unique opportunity to show the world what has been produced by the people in Hawaii working together.

President Obama has helped secure the World Conservation Congress event for Hawaii—to be held here, the first such event in America by the way, in the islands September 1-10, 2016.

**NEWS STORY: The International Union for Conservation of Nature (IUCN) Council has selected Hawaii, United States of America, as the host of the 2016 IUCN World Conservation Congress – the world's largest conservation event.**

Hawaii is working on the message our state will have to tell these 8,000-10,000 people from around the world who will come for the event--with the focus being on conservation.

Hawaii can provide a strong conservation message for the World Conservation Congress.

HADA has proposed a message about clean energy.

The concept is a simple one.

The president stands in front of a giant 30-foot by 40-foot exhibit of Hawaii's renewable resources.

On it is a large barrel of oil, along with large operable scale model wind turbines, ocean thermal turbines, photovoltaic panels, etc.

There is a representation in the blue-green circle of all the cars on Oahu.

The president throws a big 3-foot electric toggle.

Then, all the wind and ocean thermal turbines begin to spin, as a giant sun pass across the exhibit, activating the photovoltaic panels, etc.

In 12 seconds, with all the turbines moving, the sun passing overhead, etc., the oil barrel drains from 500 million gallons, down to 150 million gallons, as the sea of clean energy cars—running on electricity and hydrogen-- fills up the graphic-- fulfilling the 70% fossil fuel reduction goal of the Hawaii Clean Energy Initiative.

Clean energy explained in terms of the clean energy car.

The graphic shown is a 2-D graphic. It provides the basic concept for the production of a stunning, large, moving-parts, 3-dimensional exhibit, with draining oil barrel and moving turbines.

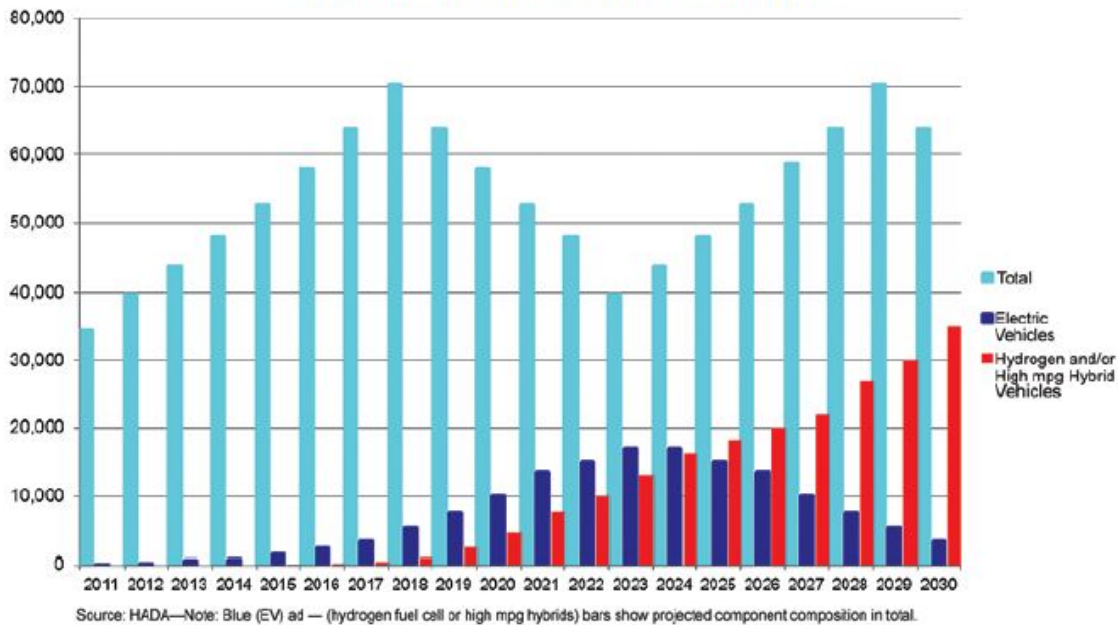
Cars and clean energy tell a compelling story about conservation. It is a technology-focused Hawaii's story and a technology-focused America's story to tell.

It is important to send a signal.

The hydrogen fuel cell electric vehicles are starting to arrive in Hawaii. HADA accurately predicted the year and month of their arrival in the market on our needed adoption rate graph produced shortly after the passage of the Hawaii Clean Energy Initiative back in 2008. The graph shows the adoption rate needed to meet the goals of the HCEI. HFCEVs are key.

# Electric /Hydrogen Vehicle Adoption Rate 2011-2030

Needed to meet goals of Hawaii Clean Energy Initiative



U.S. Department of Energy officials, who are considering encouraging a focus on hydrogen fuel cell electric vehicles for their GSA fleet in Hawaii say they have been looking “for a signal” from Hawaii officials that the State of Hawaii is making similar plans.

HADA will soon meet with City and County of Honolulu and other county officials around the state to inquire about their plans for adopting use of some hydrogen fuel cell electric vehicles—in busses, shuttle busses, and even rubbish trucks.

Right now, because of the arrival of HFCEVs, hydrogen fueling stations are needed. All acknowledge that to be financially self-supporting, there must be a base of hydrogen users—which likely will initially come from federal, state and local government fleets, as the private vehicle adoption rate gets underway.

We think this bill will send a much needed signal to producers and fleet managers of HFCEVs by putting leadership and a much-needed funding mechanism in place for funding the development of hydrogen fueling stations and five-nines (99.999% pure) hydrogen production.

We respectfully ask that you pass HB 1296 HD2 SD1, changing the effective date to upon approval.

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





COLLEGE OF SOCIAL SCIENCES

# HAWAII ENERGY POLICY FORUM

UNIVERSITY OF HAWAI'I AT MĀNOA

## Hawaii Energy Policy Forum

Jeanne Schultz Afuvai, HI Inst. for Public Affairs  
Joseph Boivin, Hawai'i Gas  
Warren Bollmeier, HI Renewable Energy Alliance  
Albert Chee, Chevron  
Elizabeth Cole, The Kohala Center  
Leslie Cole-Brooks, HI Solar Energy Assn  
Kyle Datta, Ulupono Initiative  
Mitch Ewan, UH HI Natural Energy Institute  
Jay Fidell, ThinkTech HI, Inc.  
Carl Freedman, Haiku Design & Analysis  
Sen. Mike Gabbard, HI State Senate  
Dan Giovanni, Hawaiian Electric Company  
Mark Glick, State Energy Office, DBEDT  
Justin Gruenstein, City & Co. of Honolulu  
Dale Hahn, Ofc of US Sen Brian Schatz  
Michael Hamnett, Research Corp. of the UH  
Randy Iwase, Public Utilities Commission  
Rachel James, Ofc of US Rep. Tulsi Gabbard  
Jim Kelly, Kaula'i Island Utility Cooperative  
Darren Kimura, Energy Industries  
Kelly King, Sustainable Biodiesel Alliance  
Rep Chris Lee, HI House of Representatives  
Gladys Marrone, Building Industry Assn of HI  
Doug McLeod, Maui County  
Stephen Meder, UH Facilities and Planning  
Lauren Montez-Hernandez, Ofc of Sen Mazie Hirono  
Sharon Moriawaki, UH So. Sci. Public Policy Ctr  
Ron Nelson, U.S. Defense Energy Support Center  
Tim O'Connell, U.S. Dept of Agriculture  
Jeffrey Ono, Division of Consumer Advocacy, DCCA  
Darren Pai, Hawaiian Electric Company  
Melissa Pavlicek, Hawaii Public Policy Advocates  
Randy Perreira, HI Government Employees Assn  
Rick Rocheleau, UH HI Natural Energy Institute  
Will Rolston, Hawai'i County  
Riley Saito, SunPower Systems Corp  
Joelle Simonpietri, U.S. Pacific Com. Energy Ofc  
H. Ray Starling, Hawaii Energy  
Ben Sullivan, Kaula'i County  
Lance Tanaka, Hawaii Independent Energy  
Maria Tome, Public Utilities Commission  
Ah Linn Yamane, HI Government Employees Assn

Testimony of Mitch Ewan  
Chair, Transportation Working Group  
Hawaii Energy Policy Forum

Before the  
Senate Committee on Ways & Means

Monday, April 6, 2015, 1:35 p.m., Conference Room 211

## **IN STRONG SUPPORT OF HB1296 HD2, SD1 - Relating to Energy**

Chair Tokuda, Vice Chair Kouchi, and Members of the Committee,

I am Mitch Ewan, Chair of the Transportation Working Group of the Hawaii Energy Policy Forum (Forum). 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.

HB1296 HD2, SD1 designates the director of Hawaii Center for Advanced Transportation Technologies (HCATT), under HTDC/DBEDT, to serve as the state hydrogen implementation coordinator; and to convene a working group to facilitate the establishment of infrastructure and policies across all agencies of the State to promote the expansion of hydrogen-based energy in Hawaii.

The UH Hawaii Natural Energy Institute completed a Hawaii Renewable Hydrogen Plan (2010 to 2020), pursuant to Section 196-10, HRS, to achieve a hydrogen economy, including development of the infrastructure comprised of renewable energy resources, hydrogen production systems, hydrogen storage, hydrogen delivery and hydrogen dispensing systems. While much has been done to date, the plan has not been implemented due to the lack of a responsible agency to execute. HB1296 HD2, SD1 HB1296 will provide the policy directive and authority for agencies to work together to develop specific recommendations to facilitate establishing the hydrogen infrastructure and to report on findings and recommendations to the 2016 Legislature

The Forum strongly supports HB1296 HD2,SD1 because it will reduce the State's reliance on imported fossil fuel, greenhouse gas emissions, and air pollution and provide clean energy transportation options for the state. The Forum also supports the selection of the HCATT director as most appropriate to serve as the state hydrogen implementation coordinator and convener of the working group; and therefore respectfully urges passage of the bill.

Thank you for the opportunity to testify.

*This testimony reflects the position of the Forum as a whole and not necessarily of the individual Forum members or their companies*

Written Statement of  
**ROBBIE MELTON**  
**Executive Director & CEO**  
High Technology Development Corporation  
before the  
**SENATE COMMITTEE ON WAYS AND MEANS**  
Monday, April 6, 2015  
1:35 p.m.  
State Capitol, Conference Room 211  
In consideration of

**HB1296 HD2 SD1 RELATING TO ENERGY.**

Chair Tokuda, Vice Chair Kouchi, and Members of the Committee Ways and Means.

The High Technology Development Corporation (HTDC) **supports with requested amendments** HB1296 HD2 SD1 relating to energy.

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 busses, and a hydrogen fuel cell refueling truck. HCATT has been a strong supporter for hydrogen and has the expertise to deliver on projects.

HTDC supports designating the HCATT manager as the State Hydrogen Implementation Coordinator. HTDC suggests the bill should acknowledge and preserve the State's Energy Resources Coordinator (ERC) authority over energy policy issues by amending section 1 to read:

"(b) The state hydrogen implementation coordinator shall, under the delegated authority of the energy resources coordinator, facilitate the establishment of infrastructure and policies across all agencies of the State to promote the expansion of hydrogen-based energy in Hawaii."

HTDC respectfully requests correction of the defective effective date.

Thank you for the opportunity to offer these comments.

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

DATE: April 3, 2015

TO: Senator Jill Tokuda  
Chair, Committee on Ways and Means

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

RE: **H.B. 1296, H.D.2, S.D. 1 – Relating to Energy**  
**Hearing Date: Monday, April 6, 2015, 1:35 p.m.**  
**Conference Room: 211**

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Dear Chair Tokuda and Members of the Committee on Ways and Means:

On behalf of the Alliance of Automobile Manufacturers (“Alliance”), we submit these **comments in support** of H.B. 1296, H.D.2, S.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.

The Alliance strongly supports efforts to develop hydrogen as a fuel for motor vehicles. The Department of Business Economic Development and Tourism has done a good deal of work in this area. The automobile industry has invested billions of dollars in the research and development of hydrogen, and remains ready and willing to help in the pursuit of hydrogen as a feasible alternative fuel for Hawaii.

We recognize the State has difficult choices to make when it comes to deciding how to allocate its funds. The reality is that, while industry has made and continues to make a significant investment in hydrogen, it is not in a position to develop the needed infrastructure by itself. State support will be needed. This is what is occurring in California where fueling stations are being built through a public private partnership.

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

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(808) 539-0840

This bill will enable the State to have a better handle on how best to achieve the implementation of hydrogen as an alternative source of energy in Hawaii.

Thank you for the opportunity to testify on this measure.