

**SB 1037**

LINDA LINGLE  
GOVERNOR

JAMES R. AIONA, JR.  
LT. GOVERNOR



KURT KAWAFUCHI  
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**SENATE COMMITTEES ON ENERGY AND ENVIRONMENT AND  
TRANSPORTATION, INTERNATIONAL & INTERGOVERNMENTAL AFFAIRS  
TESTIMONY REGARDING SB 1037  
RELATING TO TRANSPORTATION ENERGY**

**TESTIFIER: KURT KAWAFUCHI, DIRECTOR OF TAXATION (OR DESIGNEE)**  
**DATE: FEBRUARY 12, 2009**  
**TIME: 2:50PM**  
**ROOM: 225**

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This bill establishes, among other things, various tax incentives for the encouragement of comprehensive alternative energy transportation solutions for Hawaii.

The Department of Taxation (Department) **supports the intent** of this measure; however **prefers SB 872**.

**SUPPORT FOR ALTERNATIVE ENERGY**—The Department strongly supports the encouragement and implementation of alternative energy systems in Hawaii in order to lessen the State's dependence on fossil fuels. As fossil fuel and petroleum prices become more volatile, encouraging Hawaii residents to use electric or alternative fuel vehicles could make the State less reliant on fossil fuel.

**PREFERENCE FOR ADMINISTRATION'S BILL**—The Department prefers the tax incentives contained in SB 872, which includes a general excise tax exemption for the sale or lease of alternative fuel vehicles, an income tax credit for facilities using biofuels, a rental motor vehicle surcharge tax exemption for alternative fuel vehicles, an income tax credit for electric vehicle charging infrastructure acquisition and installation, and an income tax credit for alternative fuel vehicle refueling infrastructure acquisition and installation. The Administration's measure has been factored into the biennium budget and the financial plan.

**PROVIDING INCENTIVES TO ASSIST WITH LAYING THE FOUNDATION OF AN ALTERNATIVE ENERGY TRANSPORTATION INFRASTRUCTURE**—The Department supports this measure's purpose of establishing the necessary infrastructure upon which the renewable energy technologies in transportation will be able to rely. As history suggests, many novel technology advances stumble to become commercially viable without the necessary framework to make the technologies feasible. This legislation is a step in the right direction toward

making alternative fuel transportation alternatives realistic.

**REVENUE IMPACT**—This measure will result in the following revenue losses:

- \$1.1 million in FY10,
- \$2.6 million in FY11,
- \$4.4 million in FY12,
- \$7.7 million in FY13,
- \$7.9 million in FY14, and
- \$8.1 million in FY15.



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

**LINDA LINGLE**  
GOVERNOR  
**THEODORE E. LIU**  
DIRECTOR  
**MARK K. ANDERSON**  
DEPUTY DIRECTOR

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Statement of  
**THEODORE E. LIU**  
Director  
Department of Business, Economic Development, and Tourism  
before the  
**SENATE COMMITTEE ON ENERGY AND ENVIRONMENT  
AND THE  
SENATE COMMITTEE ON TRANSPORTATION, INTERNATIONAL AND  
INTERGOVERNMENTAL AFFAIRS**

Thursday, February 12, 2009  
2:50 PM  
State Capitol, Conference Room 225

in consideration of  
**SB 1037**  
**RELATING TO TRANSPORTATION ENERGY INITIATIVES.**

Chairs Gabbard and English and Members of the Committees.

The Department of Business, Economic Development, and Tourism (DBEDT) supports the intent of SB 1037, which is intended to begin the transformation of Hawaii's ground transportation sector to be less dependent on petroleum, but we prefer the comprehensive approach provided in the Administration bill, SB 872, or in SB 1612, with the modifications outlined in our testimony on that bill. We defer to the Department of Transportation with respect to Section 10 of this bill, and recommend changes to sections 4, 5, and 8.

In Section 2 of the bill, the addition of "research and development of non fossil fuel and energy efficient modes of transportation" as a policy and planning priority for the State is consistent with and supports a variety of energy, transportation, innovation, and economic development efforts. We support this section as written.

In Section 3 of the bill, the proposed changes to the energy objectives provide a needed update that is consistent with the maturation of energy technologies and the importance of the long term thinking that needs to occur for the best energy, economic, and environmental outcomes for the people of Hawaii. We support this section as written.

Section 4 of the bill designates space for the unique needs and attributes of electric vehicles. Designating parking spaces for electric vehicles, and eventually providing the means to connect vehicles to the grid at these points, are important for the establishment of an electric vehicle network and for grid management.

However, we believe that including a charging requirement at the same time, in 2010, (page 8, lines 4 and 5) is too soon. Fleet and home charging units should be where the emphasis is placed at this time. If a charging requirement is added for public parking lots, the earliest year that should take effect is in 2014.

With that change, we support this section.

Section 5 sets forth incentives for the establishment of electric vehicle charging and alternative fuel refueling infrastructure. Providing incentives encourages the pioneers in this area to make the investments, take the risks, and provide the initial market pull that will allow this industry to develop; contractors, electricians, and installers to be trained; and inspectors and others to become knowledgeable about these systems. Establishment of re-fueling and recharging sites is essential to support the early adoption of these vehicles and build public interest and confidence in alternatives to petroleum. This is a relatively small but extremely important step to begin the transition of Hawaii's vehicles from completely dependent on petroleum towards being able to rely on other, non-petroleum fuels.

The tax credits for electric vehicle charge points proposed in this bill are up to 70% of the installed cost of each charge point, or up to \$1000 per charge point, whichever is less. This

dollar cap per charge point is greater than the amount proposed in SB872 and SB1612, and we recommend that the amount be reduced to \$500, to keep the projected cost of the proposal below \$700,000 for the biennium.<sup>1</sup> If either the vehicles or the market for the vehicles fail to materialize, the state will NOT have incurred any expense. If the vehicles and the market do materialize, these incentives will contribute greatly to the development of Hawaii's transportation energy diversification and to Hawaii's energy security.

We defer to the Department of Taxation as to the feasibility of the aggregate limit stated on page 10, line 6, and recommend that lines 5 through 11 on page 10 be deleted.

The tax credits for the alternative fuel refueling sites are also higher than in SB872 and SB1612, and we recommend that they be reduced to \$10,000 each, which will keep the projected cost below \$100,000. We estimate a total of nine E85, B20, and electric vehicle refueling stations may be installed over the biennium.

We noted an inconsistency, and recommend that this be clarified: on page 11, line 5, there is a reference to "individual or corporate." However, on line 8, the reference is to "corporate net income tax."

On page 12 there is an aggregate limit stated, the implementation of which may be problematic; we recommend deleting lines 10 through 16 on page 12.

With those changes and clarification, we support this section. Alternative fuel infrastructure is an important first step in this area.

Section 6 supports the electric vehicle parking requirement, and we support this section as written.

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<sup>1</sup> This estimate is based on 2.5 charge spots for each of the approximately 500 electric vehicles by 6/30/2011.

Section 7 makes it clear that an installer of electric vehicle charging equipment is not an electric utility. We support this section as written.

Section 8 sets forth clear instructions for government agencies to lead by example by selecting vehicles that have great promise for Hawaii, and those that have greater barriers to market development. Agencies may apply for exemptions to the extent that vehicles are not available, and allows life cycle costs to be included in the determination of whether the vehicles meet the needs of the agencies.

On pages 21 and 22, the phrase “a flexible fuel vehicle” in Sections 8(a)(3) and 8(a)(4) should be changed to “an alternative fuel vehicle.”

Section 9 allows vehicle information to be provided to DBEDT for use in tracking the numbers and types of vehicles in use. This is an important step in determining the baseline as well as measuring progress, and we support this section as written.

Section 10 requires the Department of Transportation, in consultation with DAGS and DBEDT, to coordinate with county governments, energy industry experts, transportation specialists, and business, labor and community leaders to develop and implement a plan to expedite state and county permitting and installation of battery exchange stations and electric vehicle charging ... and to provide a report to the Legislature by the end of 2009. We defer to the Department of Transportation on the availability of resources to meet this requirement; also, we do not expect that six months will be adequate for the level of coordination and analysis required. It may be possible to apply for outside funding to support such an effort, but the timing would be uncertain, so if the requirement is left in without an appropriation, we recommend that the deadline be removed.

Overall, this bill contains some important initiatives to begin the transition of our vehicles to a more diverse set of energy sources. We encourage the Committee to support these initiatives, with amendments, as well as the additional initiatives in SB872.

Thank you for the opportunity to offer these comments.



LINDA LINGLE  
GOVERNOR



BRENNON T. MORIOKA  
DIRECTOR

Deputy Directors  
MICHAEL D. FORMBY  
FRANCIS PAUL KEENO  
BRIAN H. SEKIGUCHI  
JIRO A. SUMADA

IN REPLY REFER TO:

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

February 12, 2009

TESTIMONY OF THE DEPARTMENT OF TRANSPORTATION

COMMITTEE ON ENERGY & ENVIRONMENT

COMMITTEE ON TRANSPORTATION,  
INTERNATIONAL & INTERGOVERNMENTAL AFFAIRS

SENATE BILL NO. 1037,  
RELATING TO TRANSPORTATION ENERGY INITIATIVES.

We **support** the intent of this bill, which is to reduce the transportation sector's dependence on petroleum-based fuels. This bill addresses many of the same concerns as Senate Bill No. 872, which is the Administration's Transportation Energy Initiative. Accordingly, the Department of Transportation (DOT) respectfully requests that this bill (Senate Bill No. 1037) be held in committee and that the Administration's Initiative, Senate Bill No. 872, be considered for passage in its place.

Senate Bill No. 1037 seeks to develop a transportation infrastructure for electric vehicles by requiring an aggressive timetable to replace fossil fuel vehicles with electric and alternative fuel vehicles.

While the DOT supports the intent of this bill, we do have several significant concerns, particularly with respect to the location of the charging units.

1. Highways. The DOT's highway system does not provide the proper location for battery exchange stations or electric vehicle charging outlets. The highway shoulder areas and right-of-ways do not provide sufficient space for safe battery exchange or charging operations. Moreover, such areas should only be used in cases of emergencies.
2. Senate Bill No. 1037 proposes to amend HRS Section 226-18(b)(7), by eliminating the phrase "by encouraging diversification of transportation modes and infrastructure." This presents a concern for the DOT. The DOT is preparing statewide

plans that include plans for non-motorized transportation, i.e., bikeways and pedestrian walkways. The development of these alternative facilities for non-motorized transportation is also important for energy efficiency. The DOT is concerned that the proposed deletion of above-quoted phrase will signal a legislative intent to no longer encourage the diversification of transportation modes and infrastructure. The DOT would take exception to such a position.

3. Airports and Harbors. The DOT is willing to consider having plug-in locations at our airport and harbor parking facilities. However, several concerns are raised.

The DOT is willing to allow private sector service providers to install plug-in locations at airport and harbor parking facilities, provided that these plug-in locations do not compromise security or the operations of the facility.

In addition, the DOT would prefer to not allocate separate and independent locations for the various providers. To this end, the DOT will work with any qualified private service provider who can install universal plug-in locations that can be utilized by other interested service providers as well. Therefore, each provider must be able to implement a system that enables their individual customers to be identified as such and allows for the accounting of their own electrical charges and their own customer billing.

Furthermore, because the provider will benefit by the revenues generated from the use of the plug-in stations, the provider should be responsible for the cost of installing, operating, and maintaining these plug-in stations.

4. Finally, the permitting and installation of battery exchange stations and electric vehicle charging outlets in homes, businesses, public parking lots, and other buildings and facilities throughout the State are actions far outside the purview, authority, and resources of the DOT. Therefore, this task of developing and implementing the plan required by Section 10 of Senate Bill No. 1037 needs to be assigned to a more appropriate agency.

Thank you for the opportunity to testify on this very important measure.

# TAXBILLSERVICE

126 Queen Street, Suite 304

TAX FOUNDATION OF HAWAII

Honolulu, Hawaii 96813 Tel. 536-4587

**SUBJECT:** INCOME, Electric vehicle charging and alternative fuel recharging infrastructure tax credit

**BILL NUMBER:** SB 1037

**INTRODUCED BY:** Hanabusa by request

**BRIEF SUMMARY:** Adds a new section to HRS chapter 235 to allow taxpayers to claim a credit for code compliant electric vehicle charging infrastructure installed and placed service in a taxable year. The credit shall be 70% of the cost of the electric vehicle charging system or \$1,000 per electric vehicle charge point of the system, whichever is less. This credit is applicable to electric charging systems placed in service after January 1, 2010 and before January 1, 2016.

Defines “actual cost,” “electric vehicle charge point” and “electric vehicle charging system” for purposes of the measure.

Adds a new section to HRS chapter 235 to allow a taxpayer to claim a tax credit for any alternative fuel refueling infrastructure for the taxable year it is placed in service. The credit shall be 30% of the cost of the alternative fuel refueling infrastructure or \$25,000 whichever is less. This credit is applicable for tax years ending before January 1, 2016.

Defines “actual cost” and “alternative fuel refueling infrastructure” for purposes of the measure.

The following provisions apply to both of the above credits: Credits in excess of a taxpayer’s income tax liability shall be applied to subsequent tax liability until exhausted. The director of taxation may adopt rules pursuant to HRS chapter 91 and prepare the necessary forms to claim the credit and may require proof of the claim for the credit. Claims for the credit shall be on forms provided by the department of taxation.

The tax credits shall not exceed \$ \_\_\_\_\_ in the aggregate for all taxpayers in any taxable year. The department of taxation shall allow taxpayers to claim the credits on a first come, first served basis. Requires the director of taxation to provide an annual report to the legislature on the amount of tax credits claimed.

Makes other nontax amendments relating to the development of infrastructure to develop the electric vehicle industry in the state.

**EFFECTIVE DATE:** Upon approval

**STAFF COMMENTS:** This measure proposes an income tax credit for: (1) electric vehicle charging infrastructure; and (2) alternative fuel refueling infrastructure. While it appears that these credits are proposed to encourage the development of this infrastructure, it is questionable whether a tax credit is

necessary to entice such development. While the trend is to move toward non-fossil fuel vehicles, such as electric vehicles and non-gasoline vehicles, such infrastructure would become necessary to recharge and refuel these vehicles, so such development will occur regardless of the credit. It should also be noted that while the proposed credits are substantial at 70% of the cost of electric vehicle charging infrastructure or up to \$25,000 in the case of an alternative fuel refueling infrastructure, the credits amount to nothing more than a partial subsidy for the development of this infrastructure in the state.

In addition, the proposed tax incentives measure would result in fewer tax dollars that the state sorely needs at this point. On the other hand, perhaps all proposals suggesting tax expenditures, such as this proposal forwards, should be accompanied with a recommendation for an equal reduction in state spending to compensate for the lost revenues.

Because the proposed incentives are nothing more than a subsidy of these vehicles or charging stations, the cost of the credit steals from funds that could have been used for many other worthy programs. Such proposals reflect a lack of understanding of the gravity of the fiscal situation that the state is facing. Again, it should be noted that the tax system is not meant to be a mechanism by which to hand out refunds and rebates to influence human behavior.

If the intent is to subsidize such vehicles albeit in the name of energy conservation and environmental concern, then lawmakers should just appropriate the necessary sum of taxpayer dollars and let the taxpayers decide whether or not that was a good way to spend tax dollars. As an appropriation from the state general fund, taxpayers can then decide whether the appropriation was worth the reduction in spending on education, or welfare, or health. Using the backdoor of tax credits hides the fact from taxpayers that tax dollars are being spent at the expense of critical public programs.

Digested 2/11/09

Testimony before the Senate Committee on  
Energy and Environment and  
Transportation, International and Intergovernmental Affairs

S.B. 1037, Relating to Transportation Energy Initiatives

Thursday, February 12, 2009  
2:50 p.m., Conference Room 225

By Carlos Perez Loriga  
Director  
Customer Technology Applications Division  
Hawaiian Electric Company, Inc.

Chairs Gabbard & English and members of the Committee:

My name is Carlos Perez Loriga and I am testifying on behalf of Hawaiian Electric Company, Inc., and its subsidiary utilities, Maui Electric Company, Ltd., and Hawaii Electric Light Company, Inc.

S. B. 1037 creates incentives to enable electrification of transportation in Hawaii and replacement of fossil fuel vehicles with electric and alternative fuel vehicles.

While sensitive of the financial challenges that the State is currently facing, Hawaiian Electric Company supports S.B. 1037, to promote the increased acceptance and use of electric and plug-in hybrid electric automobiles. Increased consumer acceptance of these types of vehicles will aid in the reduction of greenhouse emissions and fossil fuel use and will also help enable the Hawaii Clean Energy Initiative's goal of 70% clean, renewable energy by 2030.

Thank you for the opportunity to testify.

Written Statement of  
**YUKA NAGASHIMA**  
**Executive Director & CEO**  
High Technology Development Corporation  
before the  
**SENATE COMMITTEES ON TRANSPORTATION, INTERNATIONAL AND  
INTERGOVERNMENTAL AFFAIRS  
AND  
ENERGY AND ENVIRONMENT**  
Thursday, February 12, 2009  
2:50 PM  
State Capitol, Conference Room 225

In consideration of  
**SB 1037 RELATING TO TRANSPORTATION ENERGY INITIATIVES.**

Chairs English and Gabbard, Vice Chairs Gabbard and English and Members of the Senate Committees on Transportation, International and Intergovernmental Affairs and Energy and Environment.

The High Technology Development Corporation (HTDC) supports SB 1037, which contains numerous initiatives that support the State's overarching Clean Energy Initiative.

However, we recommend a minor change under Part III, Government Agency Requirements, which provides specific guidelines on future vehicle purchases. The term "flexible fuel vehicle" in Sections 8(a)(3) on page 21 and 8(a)(4) on page 22 should be changed to "alternative fuel vehicle". Flexible fuel vehicles are configured to allow the use of petroleum-based fuels as well as other fuels generally recognized as alternative fuels. State agencies have purchased flexible fuel vehicles in the past, but due to the non-availability of the alternative fuel, petroleum-based fuels were used in these vehicles. Allowing the future purchase of flexible fuel vehicles would facilitate the continuation of prior fuel use practices that do not meet the intent of this section, the reduction of dependence on petroleum for transportation energy.

Thank you for the opportunity to submit this testimony.



**To:** Chair Gabbard, Vice Chair English and Members of the Committee on Energy and Environment  
Chair English, Vice Chair Gabbard and Members of the Committee on Transportation, International and Intergovernmental Affairs

**From:** Lance Wilhelm  
Sr. Vice President  
Kiewit Building Group Inc.

**Subject:** SUPPORT FOR SB1202 and SB1037 – RELATING TO TRANSPORTATION ENERGY INITIATIVES

**Date:** Hearing scheduled for Thursday, February 12, 2009  
Conference Room 225

My name is Lance Wilhelm, Sr. Vice President with Kiewit Building Group Inc. Our firm is part of a diversified national general contracting firm that firmly supports the growth of sustainable development in our state. We support SB1202 and SB 1037, which provides policy directives, energy initiatives and requirements for the electrification of transportation in Hawaii.

The State of Hawaii has set an aggressive goal of obtaining 70 percent of its energy from renewable sources by the year 2030. We believe that the rapid adoption of renewable energy sources for transportation purposes is a significant factor in achieving this bold vision. In the process, we can diversify the economy by fueling the growth of the renewable-energy industry, create greater energy security for our state, and set in place policies that will ultimately protect our island environment.

The provisions in this bill are the first steps along the road to the electrification of passenger vehicle transportation.

- Specifically, we support the development of an expedited permitting and electric vehicle infrastructure plan. It should include measurable objectives and provide clear next steps for moving forward.
- We believe that it is critical to "prime the pump" and use incentives to accelerate early adoption of electric vehicles (EVs) and the build-out of its supporting infrastructure. Incentives, in the form of reasonable tax credits, such as those used in the solar energy industry, will encourage quick action on the part of the private sector to build electric vehicle charging and refueling infrastructure.
- We also support the incentives regarding designated parking spaces with charging units for electric vehicles. Convenience and visibility will go a long way in promoting consumer adoption of electric vehicles.
- Finally, we applaud the State's intent to lead by example by considering and, whenever appropriate, purchasing EVs or plug-in hybrids for the State's vehicle fleet.

The overall economic impact of this bill is far reaching. Major demand for renewable energy will be created, which will further the growth of this industry in the Islands. As a result, Hawaii's trade balance will improve by investing more money locally into renewable energy resources, rather than spending billions of dollars overseas for foreign oil. In addition, EVs will provide large-scale storage capacity for renewable energy produced during off-peak hours, making it far more economically feasible to establish successful renewable energy enterprises. As the industry grows, short- and long-term jobs will be created in the deployment of EV charging infrastructure as well as in new renewable energy projects.

Energy self-sufficiency for our state is a long-term goal, and this bill will help us meet that goal. A total switch to EVs powered by renewable energy sources would reduce our dependence on imported oil by more than 20%

Also, Hawaii's environment will benefit from the programs established by this bill. Locally, as 30 percent of green house gas emissions in Hawaii are related to transportation, electrifying vehicles with renewable energy will have a substantial impact in reducing or eliminating these harmful emissions. In addition, EVs are much quieter, so noise pollution will be dramatically reduced. In terms of the global environment, we will be able to conserve the resources needed to ship fuel to Hawaii by relying on local sources of renewable energy.

Electric vehicles powered by renewable energy can help end our reliance on imported fuel. Modern electric vehicles made by major car manufacturers are safe and fully loaded with all the capabilities that drivers demand. EVs perform better than gas-powered cars at a lower cost per mile

Now is the time to put in place policies that will accelerate the development of an EV infrastructure in Hawaii and demonstrate to the rest of the country our state's leadership in green transportation.

Thank you for the opportunity to provide you with Kiewit Building Group's perspective. We respectfully urge you to support SB1202 and SB1037.

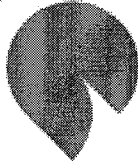
If you have any questions, please contact me at 808-457-4500 or at [lance.Wilhelm@kiewit.com](mailto:lance.Wilhelm@kiewit.com).

Mahalo,





better place



**BEFORE THE**  
**SENATE COMMITTEE ON**  
**TRANSPORTATION, INTERNATIONAL AND INTERGOVERNMENTAL AFFAIRS**  
Senator J. Kalani English, Chair  
Mike Gabbard, Vice Chair

**SENATE COMMITTEE ON ENERGY AND ENVIRONMENT**  
Senator Mike Gabbard, Chair  
Senator J. Kalani English, Vice Chair

*Testimony of*

**PETE COOPER**  
Better Place Hawaii  
745 Fort Street, Suite 2100  
Honolulu, Hawaii 96813

**SB1202**  
**RELATING TO TRANSPORTATION ENERGY INITIATIVES**

**SB1037**  
**RELATING TO TRANSPORTATION ENERGY INITIATIVES**

February 12, 2009, 2:50 pm  
State Capitol, Room 225

Chair English and Chair Gabbard:

My name is Pete Cooper of Better Place Hawaii. Better Place Hawaii coordinates with Hawaii utilities, automobile dealers, State and county governments and other stakeholders to deploy an electric vehicle charging network powered by renewable energy.

Better Place Hawaii **SUPPORTS WITH AMENDMENTS** SB1202 and SB1037, which provides policy guidelines, business incentives, and mandates to dramatically transform the use of oil-reliant cars to a more efficient renewable transportation system which supports electric vehicles. Both bills are similar in content and form.

With the State's goal of utilizing renewable sources for 70% of its energy by 2030, government action to further the use of electric vehicles is essential. In so doing, Hawaii will benefit in the following ways:

- Reduced demand for gas and oil imports.

- Reduced demand for electricity during peak demand times of day, hence lowering costs to ratepayers/taxpayers.
- Increased demand for off-peak and renewable energy when capacity is high, resulting in lower costs of renewable energy.
- Reduced utility costs resulting from distributed network of batteries in EVs.
- Increased tax receipts from the EV industry as a whole.

In particular, Better Place Hawaii supports Part I of these measures, which amends certain sections of the Hawaii State Plan. SB1202 and SB1037 establishes objectives and policies that will increase and diversify Hawaii's economic base, including the research and development of non-fossil fuel and energy efficient modes of transportation; as well as directs the state's energy systems to be dependable, efficient, and economical, leading towards increased energy self-sufficiency. Those additional guidelines in HRS Chapter 226 would better reflect the State's commitment towards non-fossil fuel and energy efficient transportation in Hawaii.

Better Place Hawaii also supports Part II of SB1202 and SB1037, which provides tax credits for the development of EV and alternative refueling infrastructure. Individual and corporate tax incentives outlined in SB1202 and SB1037 provides individual and corporate consumers with incentives to install EV charging stations in their homes and businesses -- similar to tax credits provided to the solar energy industry. It is anticipated that by the year 2014, about 10,000+ electric vehicles could be on Hawaii's roads and highways. It is imperative that sufficient number of EV charging stations be available to support this new mode of transportation that will be available in Hawaii and throughout the globe.

Part II of SB1202 and SB1037 also provides for parking lot requirements where designated spaces and charge spots will be placed in public and government parking lots available for use by the general public. For Part II, we recommend the following amendments:

**Recommended Amendment I:** To clarify parking requirements in SB1202 and SB1037, we recommend that that these bills explicitly state that such parking requirements be applicable to both privately- and government-owned parking facilities that are available for use by the general public. Both bills require that all "**public** and government parking facilities available for use by the general public with at least fifty parking spaces shall designate at least one space for each fifty spaces exclusively for electric vehicles . . . ." The term "public" is vague and ambiguous, and can be interpreted to mean only public-sector parking lots. SB1202 and SB1037 should be further clarified that any private, public and government parking facilities that is available for use by the general public be subject to this EV parking requirement. This clarification will ensure that shopping centers, office garages, and other private facilities that are open to the general public are equipped with EV charging stations.

**Recommended Amendment II:** SB1202 and SB1037 require that each designated EV parking spot be equipped with an electric vehicle charging unit by December 31, 2010. We recommend that the charge spot requirement should be phased-in over a four year period ending December 31, 2013. It is not anticipated that EVs will dramatically appear on Hawaii's roads and highways by 2010. A phased-in requirement will ensure that the number of charge spots installed is commensurate with the number of anticipated EVs in the transportation marketplace at that time. We submit the following language for your consideration:

All owners of parking lots, be they private, public, the State, local or the Federal Government, who own altogether more than 100 parking spaces, whether in one parking lot or multiple parking lots, shall designate at least the following percentages of their overall parking spaces exclusively for electric vehicles on the following schedule: 1% (one percent) by December 31, 2011; 2% (two percent) by December 31, 2012; 4% (four percent) by December 31, 2013; 6% (six percent) by December 31, 2014; 10% (ten percent) by December 31, 2015; provided that the above parking spaces for electric vehicles are located near the building entrance and are equipped with an electric vehicle charging infrastructure. For the purposes of this section, the designation may be only in part of the parking facilities, provided that the overall percentage of designated parking spaces out of the overall parking spaces owned by the same owner, meets the above requirement. Such spaces shall be designated, clearly marked, and enforced by December 31, 2011.

Part III of SB1202 and SB1037 requires that government agencies lead the effort towards the electrification of transportation in Hawaii. We believe that State and local government can provide a strong kick-start to utilizing EVs in Hawaii. The measures and requirements outlined in SB1202 and SB1037 are strongly supported by Better Place Hawaii.

Lastly, SB1202 and SB1037 requires that the Department of Transportation develop and implement a plan to expedite State and county permitting and installation of EV charge outlets in homes, businesses, public parking lots and buildings and facilities throughout the state. To ensure that Hawaii is prepared for this new wave of electric vehicles to be introduced by automakers throughout the world, a well planned and developed EV charging infrastructure must be in place by no later than 2011. We believe that the Department of Transportation may not be the appropriate agency to conduct this study. However, we support this Committee's determination as to which entity would be most appropriate to address these issues.

Thank you for the opportunity to testify in **SUPPORT WITH AMENDMENTS** of SB1202 and SB1037. Please feel free to contact me if you have any questions.



# Sierra Club Hawai'i Chapter

PO Box 2577, Honolulu, HI 96803  
808.537.9019 hawaii.chapter@sierraclub.org

## SENATE COMMITTEE ON ENERGY & ENVIRONMENT SENATE COMMITTEE ON TRANSPORTATION, INTERNATIONAL AND INTERGOVERNMENTAL AFFAIRS

February 12, 2008, 2:50 P.M.

(Testimony is 2 pages long)

### TESTIMONY IN SUPPORT OF SB 1037

Chair Gabbard, Chair English, and members of the Committees:

The Sierra Club, Hawai'i Chapter, with 5500 dues paying members statewide, supports SB 1612, encouraging the development of electric and alternative fuel cars in Hawai'i.

New Zealand -- a comparable location to Hawai'i -- currently produces over 60% of their electrical power needs from renewable sources. The key element to this "greenness" is storage capacity. Successful electrical grids must be able to tap a source of energy when wind and solar power wanes.

Electric vehicles, which are idle an average of 22 hours a day, are an ideal storage option. For example, the eBox (a 100% electric conversion of a Toyota Scion xB) can drive 140-180 miles or power twenty average homes for one hour.<sup>1</sup> Vehicle-to-grid technology allows car owners to use the power stored in the batteries to reduce their power consumption, store solar-generated power for clean driving, or back up the power grid.

Electrical cars have other benefits. They are silent, create no air pollution, and need little maintenance. No tune ups, oil changes, or radiator repairs are necessary (these items don't exist on an electrical car). Most importantly, they reduce Hawai'i's fossil fuel consumption, which is currently the most dependent state on oil in the nation.

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<sup>1</sup> "How Near are Vehicle-to-Grid Electric Cars?" by Leonard J. Beck, available at <http://evworld.com/article.cfm?storyid=1633>

Moreover, the limited geography of Hawai`i makes it an ideal location for electric vehicles. Most commutes are well within an electric vehicles capacity, thus eliminating the need for a gas powered engine (as is included in a hybrid vehicle), reducing Hawaii's fossil-fuel consumption.

Other places have adopted similar measures as proposed in SB 1612. Last November, Oregon became the first state to develop standards for a statewide infrastructure of electric-car plug-in stations in terms of performance, safety, and voltage. If Hawai`i does not act now, it is possible it will lose the investors who want to develop Hawai`i as a pilot project to demonstrate the feasibility of this technology to the rest of the world.

Thank you for the opportunity to testify.



# International Brotherhood of Electrical Workers

LOCAL UNION NO. 1186 • Affiliated with AFL-CIO

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## TESTIMONY SUPPORTING SB1037 & SB1202 RELATING TO TRANSPORTATION ENERGY INITIATIVES

*(Via Fax to Senate Sgt-At-Arms Office: 586-6659)*

TO: **SENATE COMMITTEE ON ENERGY & ENVIRONMENT**  
**SENATE COMMITTEE ON TRANSPORTATION, INTERNATIONAL**  
**& INTERGOVERNMENTAL AFFAIRS**

RE: **Joint Senate Hearing on Thursday, February 12, 2009, at 2:50 p.m. in Room 225**  
**RELATING TO TRANSPORTATION ENERGY INITIATIVES**

Honorable **Chairs Gabbard & English**, Vice Chairs, and Senate Committee members,

My name is **Damien Kim**, and I am the Business Manager – Financial Secretary of the **International Brotherhood of Electrical Workers Local Union 1186** representing over 3,500 members of the electrical construction, telecommunication, Oceanic Cable; and civil service employees at Pearl Harbor Shipyard, Kaneohe Marine Base and Hickam. IBEW Local 1186 also represents over 120 signatory electrical contractors that perform most of the electrical work in Hawaii.

We support SB1037 & SB1202 and its efforts to promote the use of renewable energy sources for Hawaii's transportation needs. Incentives to accelerate investments in worthwhile projects will pay off in the long run and make Hawaii less dependent on uncertain outside sources for our growing energy needs.

Thank you for providing me with this opportunity to testify in support of SB1037 & SB1202.

Mahalo and aloha,

**Damien Kim**  
Business Manager – Financial Secretary  
International Brotherhood of  
Electrical Workers, Local Union 1186



**RALPH S. INOUE CO LTD**  
GENERAL CONTRACTOR

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License No. ABC-457  
Founded In 1962

February 9, 2009

**TESTIMONY SUPPORTING SB1202 and SB1037 -  
RELATING TO TRANSPORTATION ENERGY INITIATIVES**

**To:** Chair Gabbard, Vice Chair English and Members of the Committee on Energy  
and Environment

Chair English, Vice Chair Gabbard and Members of the Committee on  
Transportation, International and Intergovernmental Affairs

**From:** Lance M. Inouye  
President and CEO  
Ralph S. Inouye Co., Ltd.

**Subject:** SUPPORT FOR SB1202 and SB1037 – RELATING TO TRANSPORTATION  
ENERGY INITIATIVES

**Hearing Date:** Thursday, February 12, 2009  
Conference Room 225

Ralph S. Inouye Co., Ltd. (RSI), General Contractor, and a member of the General Contractors Association of Hawaii, supports SB1202 and SB1037 Relating to Transportation Energy Initiatives, which provides policy directives, energy initiatives and requirements for the electrification of transportation in Hawaii.

The State of Hawaii has set an aggressive goal of obtaining 70 percent of its energy from renewable sources by the year 2030. We believe that the rapid adoption of renewable energy sources for transportation purposes is a significant factor in achieving this bold vision. In the process, we can diversify the economy by fueling the growth of the renewable-energy industry, create greater energy security for our state, and set in place policies that will ultimately protect our island environment.

The provisions in this bill are the first steps along the road to the electrification of passenger vehicle transportation.

- Specifically, we support the development of an expedited permitting and electric vehicle infrastructure plan. It should include measurable objectives and provide clear next steps for moving forward.
- We believe that it is critical to “prime the pump” and use incentives to accelerate early adoption of electric vehicles (EVs) and the build-out of its supporting infrastructure. Incentives, in the form of reasonable tax credits, such as those used in the solar energy industry, will encourage quick action on the part of the private sector to build electric vehicle charging and refueling infrastructure.

- We also support the incentives regarding designated parking spaces with charging units for electric vehicles. Convenience and visibility will go a long way in promoting consumer adoption of electric vehicles.
- Finally, we applaud the State's intent to lead by example by considering and, whenever appropriate, purchasing EVs or plug-in hybrids for the State's vehicle fleet.

The overall economic impact of this bill is far reaching. Major demand for renewable energy will be created, which will further the growth of this industry in the Islands. As a result, Hawaii's trade balance will improve by investing more money locally into renewable energy resources, rather than spending billions of dollars overseas for foreign oil. In addition, EVs will provide large-scale storage capacity for renewable energy produced during off-peak hours, making it far more economically feasible to establish successful renewable energy enterprises. As the industry grows, short- and long-term jobs will be created in the deployment of EV charging infrastructure as well as in new renewable energy projects.

Energy self-sufficiency for our state is a long-term goal, and this bill will help us meet that goal. A total switch to EVs powered by renewable energy sources could potentially reduce our dependence on imported oil by more than 20%

Also, Hawaii's environment will benefit from the programs established by this bill. Locally, as 30 percent of green house gas emissions in Hawaii are related to transportation, electrifying vehicles with renewable energy will have a substantial impact in reducing or eliminating these harmful emissions. In addition, EVs are much quieter, so noise pollution will be dramatically reduced. In terms of the global environment, we will be able to conserve the resources needed to ship fuel to Hawaii by relying on local sources of renewable energy.

Electric vehicles powered by renewable energy can help end our reliance on imported fuel. Modern electric vehicles made by major car manufacturers are safe and fully loaded with all the capabilities that drivers demand. EVs perform better than gas-powered cars at a lower cost per mile

Now is a good time to put in place policies that will accelerate the development of an EV infrastructure in Hawaii and demonstrate to the rest of the country our state's leadership in green transportation.

Thank you for the opportunity to provide you with our perspective. We respectfully urge you to support SB1202 and SB1037.





**SENATE COMMITTEE ON TRANSPORTATION, INTERNATIONAL AND  
INTERGOVERNMENTAL AFFAIRS  
SENATE COMMITTEE ON ENERGY & ENVIRONMENT**

February 12, 2008, 2:50 P.M.  
Room 225

**(Testimony is 2 pages long)**

**TESTIMONY IN SUPPORT OF SB 1037**

Chairs English and Gabbard and members of the committees:

The Blue Planet Foundation supports Senate Bill 1037, implementing various policies to support the use of non-fossil transportation energy options. We support efforts to require the state to purchase high efficiency vehicles and particularly support using life-cycle costing to determine the best transportation options for state vehicles.

Regarding the incentives and requirements for electric vehicle infrastructure, Blue Planet strongly supports significant efforts to foster the rapid development of Hawaii's clean transportation future. Electric vehicles (EV) will play an integral role in Hawaii's clean energy future. By using stored electrical energy, EVs can take advantage of intermittent solar, wind, and other clean energy resources. Most vehicles sit idle 22+ hours of the day, so they become *de facto* energy storage devices if their batteries are plugged into the grid when they are not in use. With smart grid infrastructure in place, EVs become an essential component to electricity load and clean energy resource balancing—in addition to providing clean mobility solutions for Hawai'i residents.

Electric vehicles today have evolved from their “golf cart” roots. In fact, one new production model, the Tesla Roadster, is a high-end sports car that can accelerate from zero to 60 miles per hour in under four seconds—beating almost all regular internal combustion engines on the road today. The drawback, however, is its price. As with most full performance EVs, the battery technology currently adds considerable expense to the cost of the EV. Tax incentives for EV purchase will help to overcome this barrier, and some EV companies are considering business models that will reduce the upfront cost of EVs for Hawai'i residents.

In addition to tax credits for EV charging infrastructure, Blue Planet supports the creation of preferential electricity rates to encourage EV charging off-peak with electricity from clean energy sources. Such a policy would support three clean energy goals: encouraging EV use, increasing clean energy consumption, and leveling out the electricity demand on the grid.

We are happy to work with the committee to craft such a preferential charging rate policy.

**Finally, Blue Planet supports amending SB 1037 that would establish a schedule of steadily increasing parking stall EV charging capacity requirements over time. This would prepare building owners and managers for the upcoming requirements and help their EV investment decision making. Such a policy would also help to overcome the “chicken and the egg” problem of customer EV adoption; if residents know that infrastructure is coming, they will feel more comfortable about investing in a vehicle.**

Thank you for the opportunity to testify.