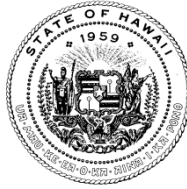


SB 1186

RELATING TO ENERGY.

Establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045. Updates the State's clean energy initiative program to reflect the State's target of achieving a one hundred per cent renewable energy economy by 2045.



Testimony by:
FORD N. FUCHIGAMI
DIRECTOR

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

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

IN REPLY REFER TO:

February 10, 2017
1:15 p.m.
State Capitol, Room 210

S.B. 1186
RELATING TO ENERGY

Senate Committee on Transportation and Energy

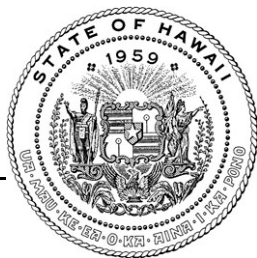
The Department of Transportation (DOT) **supports** the intent to establish a working group to reduce and eliminate the use of fossil fuels through targets and goals outlined in the bill.

However, in 2015, the DOT convened the Sustainable Transportation Forum consisting of 150 + energy and transportation minded participants representing government, non profit, private and public organizations.

Since its inception, the forum has made significant progress in the areas of building relationships with the counties, smart growth and mode shift.

The DOT feels it is important that this forum be given the opportunity to develop transportation energy metrics and articulate its agenda towards a sustainable transportation future without the bureaucracy of Chapter 92, H.R.S., that might unintendedly be created with a working group.

Thank you for the opportunity to provide testimony.



**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
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804
Web site: www.hawaii.gov/dbedt

Telephone: (808) 586-2355
Fax: (808) 586-2377

Statement of
LUIS P. SALAVERIA
Director
Department of Business, Economic Development and Tourism
before the
SENATE COMMITTEE ON TRANSPORTATION AND ENERGY
Friday, February 10, 2017
1:15 p.m.
State Capitol, Conference Room 225

in consideration of
SB 1186
RELATING TO ENERGY.

Chair Inouye, Vice Chair Dela Cruz and Members of the Committee.

The Department of Business, Economic Development and Tourism (DBEDT) offers comments on SB 1186, which establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045, and updates the State's clean energy initiative program to reflect the State's target of achieving a one hundred per cent renewable energy economy by 2045. DBEDT supports setting a goal for the petroleum reduction in ground transportation and supports pursuing action plans promoting petroleum reduction by implementing existing technologies and innovative programs.

DBEDT prefers to achieve the goal of SB 1186 by establishing a clean transportation benchmark framework, including a near term 2025 target supporting Hawaii's goal for the reduction and ultimate elimination of the use of imported fuels for ground transportation, consistent with Hawaii Revised Statutes §226-18, "Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation." Proposed language is attached to this testimony for the Committee's consideration.

Thank you for the opportunity to offer DBEDT's position on SB 1186.

A BILL FOR AN ACT

RELATING TO ENERGY.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The legislature finds that Hawaii's dependence on imported fossil fuels with volatile prices drains the State's economy of billions of dollars each year. Approximately one-third of imported fuels are used for ground transportation. Therefore, a stronger more resilient local economy depends on a transition away from imported fossil fuel-powered ground transportation and toward cleaner and more efficient transportation systems powered by renewable local energy sources.

The legislature also finds that climate change caused by greenhouse gas emissions from burning fossil fuels poses a serious threat to economic well-being, public health, natural resources, and the environment of Hawaii. The legislature further finds that climate change threatens increasing detrimental effects on some of Hawaii's largest industries including tourism, agriculture, and recreational and commercial fishing.

The legislature further finds that establishing a target for the State to achieve a one hundred per cent renewable energy economy will help align efforts by individuals, the public sector, and private business as the State transitions to more sustainable forms of transportation. Such alignment will help maximize long-term benefit to Hawaii's economy and reduce the consequences of climate change on the State's economy and environment.

The purpose of this Act is to update the Hawaii State Planning Act to set a target date for the elimination of Hawaii's dependence on imported fossil fuels in the ground transportation sector. This Act also updates the Hawaii clean energy initiative to reflect the State's target of achieving a one hundred per cent renewable energy economy no later than 2045.

SECTION 2. Chapter 264, Hawaii Revised Statutes, is amended by adding a new section to part I to be appropriately designated and to read as follows:

"§264- Sustainable transportation forum. (a) The department of transportation, in collaboration with the state energy office of the department of business, economic development, and tourism, shall:

(1) Identify a plan to make progress toward the clean transportation goals identified in HRS 196- 10.5 (a)(8);

(2) Develop recommendations regarding the additional steps necessary to help achieve the goal described in paragraph (1);

(3) Convene stakeholders in a Sustainable Transportation Forum to solicit and incorporate input on DoT's sustainable transportation activities to help achieve the goal described in paragraph (1);

(b) In its annual report submitted to the legislature pursuant to part II of Act 100, Session Laws of Hawaii 1999, the department of transportation shall make recommendations as developed pursuant to subsection (a) (2).

(c) For purposes of this section, "sustainable ground transportation" means ground transportation that avoids fossil fuel consumption."

SECTION 3. Section 196-10.5, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) There is established within the department of business, economic development, and tourism, a Hawaii clean energy initiative program to manage the State's transition to a clean energy economy. The clean energy program shall design, implement, and administer activities that include:

(1) Strategic partnerships for the research, development, testing, deployment, and permitting of clean and renewable technologies;

(2) Engineering and economic evaluations of Hawaii's potential for near-term project opportunities for the State's renewable energy resources;

(3) Electric grid reliability and security projects that will enable the integration of a substantial increase of electricity from renewable-energy resources;

(4) A statewide clean energy public education and outreach plan to be developed in coordination with Hawaii's institutions of public education;

(5) Promotion of Hawaii's clean and renewable resources to potential partners and investors;

(6) A plan, to be implemented from 2011 to ~~[2030]~~ 2045, to transition the State to a clean energy economy; and

(7) A plan, to be implemented from 2011 to ~~2030~~ 2045,, to assist each county in transitioning to a clean energy economy."

(8) A plan, to be implemented between 2017 and 2025 to achieve a reduction of 5% in fossil fuel for ground transportation relative to 2016 levels as well as for incremental benchmarks as identified in (b) below:

(a) HSEO shall establish metrics to measure evaluation of progress towards the target fossil fuel reductions in ground transportation

(b) Two years prior to the completion of Section 196-10.5(a)(8) and every five years thereafter submit a report to the legislature including:

1) Progress towards the established target; and

(2) Proposals for legislative actions to support the achievement of the next fossil fuel reduction in transportation benchmark; and

(3) A new target benchmark for the reduction of fossil fuels in transportation for 5 years from the coming target;

SECTION 3. Section 226-17, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) Planning for the State's facility systems with regard to transportation shall be directed towards the achievement of the following objectives:

(1) An integrated multi-modal transportation system that services statewide needs and promotes the efficient, economical, safe, and convenient movement of people and goods~~[+]~~;

(2) A statewide transportation system that is consistent with and will accommodate planned growth objectives throughout the State[-]; and

(3) Increased energy security and self-sufficiency through the reduction and ultimate elimination, in accordance with benchmarks established per HRS 196- 10.5 (a)(8), of imported fuels for ground transportation."

SECTION 4. Section 226-18, Hawaii Revised Statutes, is amended by amending subsection (a) to read as follows:

"(a) Planning for the State's facility systems with regard to energy shall be directed toward the achievement of the following objectives, giving due consideration to all:

(1) Dependable, efficient, and economical statewide energy systems capable of supporting the needs of the people;

(2) Increased energy security and self-sufficiency through the reduction and ultimate elimination of Hawaii's dependence on imported fuels for electrical generation and ground transportation , in accordance with ground transportation benchmarks established per HRS 196- 10.5 (a)(8); [+]

(3) Greater diversification of energy generation in the face of threats to Hawaii's energy supplies and systems;

(4) Reduction, avoidance, or sequestration of greenhouse gas emissions from energy supply and use; and

(5) Utility models that make the social and financial interests of Hawaii's utility customers a priority."

SECTION 5. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 6. This Act shall take effect upon its approval.

INTRODUCED BY: _____

Report Title:

Imported Fossil Fuels; Elimination; Clean Energy Initiative Program

Description:

Establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045. Updates the State's clean energy initiative program to reflect the State's target of achieving a one hundred per cent renewable energy economy by 2045.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

Bernard P. Carvalho, Jr.
Mayor



George K. Costa
Director

Wallace Rezentes, Jr.
Managing Director

OFFICE OF ECONOMIC DEVELOPMENT
County of Kaua'i, State of Hawai'i

4444 Rice Street, Suite 200, Lihu'e, Hawai'i 96766
TEL (808) 241-4946 FAX (808) 241-6399

Before the Senate Committee on Transportation and Energy
Friday, February 10, 2017
Conference Room 225
1:15 p.m.

IN SUPPORT OF SB 1186 RELATING TO ENERGY

Chair Inouye, Vice Chair Dela Cruz, and members of the committee,

The County of Kauai supports SB 1186, which establishes 2045 as the target date for eliminating the use of fossil fuel in the ground transportation sector. This bold but realistic target is a natural next step for the Hawaii Clean Energy Initiative, which has brought tremendous success in transforming Hawaii's electricity sector.

The pathway to decarbonization in Hawaii's ground transportation sector contains many unknowns, both in terms of technology and cost. What combination of technologies and system changes can get us to 100%? How will we track our progress? How will we enforce the reduced use of fossil fuels? How will we accelerate mode shift away from single occupancy vehicles? How will we pay for it all? These are all very important questions, but without a clear, over-arching goal, they are nearly impossible to answer.

We ask that you pass this bill for two reasons: (1) it will help accelerate a transformation that will bring economic and health benefits to communities across the State, and (2) It will help us meet our shared responsibility to reduce our greenhouse gas emissions by at least 80% by 2050.

Sincerely,

Ben Sullivan
Energy and Sustainability Coordinator
Office of Economic Development
County of Kauai

Testimony before the Senate Transportation and Energy Committee

Senate Bill 1186 – Relating to Energy

**Friday, February 10, 2017
Conference Room 225**

**By Michael Colón
Director, New Customer Initiatives
Hawaiian Electric Company, Inc.**

Chair Inouye, Vice Chair Dela Cruz and Members of the Committee:

My name is Michael Colón and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities, Maui Electric Company and Hawai'i Electric Light Company (collectively, the "Hawaiian Electric Companies").

Senate Bill 1186 seeks to establish a goal of eliminating all imported fossil fuels for ground transportation by 2045, and also updates the State's clean energy initiative program to reflect the State's target of achieving a one hundred per cent renewable energy economy by 2045.

The Hawaiian Electric Companies strongly support the intent of this bill with the stated goal to eliminate the importation of fossil fuels and support a local clean energy economy. The Hawaiian Electric Companies have been involved in the electric vehicle space for many years and have various pilots and programs to support their proliferation. For example, the Hawaiian Electric Companies currently have eleven DC fast chargers deployed across its service territory, providing fast, reliable vehicle charging at speeds several times faster than standard level-two charging stations. The Companies have been awarded both locally and nationally for its fast charger program and the continued efforts to increase electric vehicle charging infrastructure in Hawai'i.

The Hawaiian Electric Companies also have offered various time-of-use rate options to customers interested in owning an electric vehicle and charging it at their home, encouraging vehicle charging during times when renewable energy is produced on the grid or to minimize peak demand impacts. The Companies also provide an online calculator

called the WattPlan for Electric Vehicles to help customers decide on buying an electric vehicle and determine the amount of money that can be saved on total energy needs.

In terms of policy, the Companies have recently collaborated with multiple key stakeholders on a memorandum of understanding (MOU), related to electric vehicles, which sets forth a shared vision of powering ground transportation using 100% renewable energy in support of Hawaii's goal of 100% renewable electricity. The primary focus of the MOU group is to accelerate the electrification of transportation in all passenger vehicles, public transit vehicles, and fleet vehicles, which are not otherwise powered by renewable energy. The Companies recommend establishing a coordinated planning effort under this bill to that would include the Hawaiian Electric Companies as an integral part of the process to ensure the transition away from fossil fuels for ground transportation is integrated with the Companies' renewable portfolio standards planning process. There is a natural nexus between clean energy and the electrification of transportation that will optimize the achievement of both goals.

The Companies welcome the legislature's intent to build upon the momentum and progress already achieved in transforming Hawaii's transportation paradigm. For example, Hawai'i is the second largest electric vehicle market on a per capita basis and has over 5,000 registered electric vehicles on the road.

Thank you for the opportunity to testify.



February 10, 2017

**TESTIMONY BEFORE THE SENATE COMMITTEE ON TRANSPORTATION
ON SB 1186 RELATING TO ENERGY**

Thank you Chair Inouye, and committee members. I am Gareth Sakakida, Managing Director of the Hawaii Transportation Association (HTA) with over 400 transportation related members throughout the state of Hawaii.

HTA's major concern about this measure is with the absolute deadline of 2045 with no provisions for situations that could make the goal impossible to meet.

Over the next 28 years no one can predict where we, and the world, may be. This bill assumes advances in alternative fuel technology will provide sufficient energy supplies and make vehicle costs manageable. Today's level of advancement carries a price tag for tractors of 4-5 times the normal cost.

Unlike multi-million and multi-billion dollar trucking companies on the mainland, Hawaii's trucking companies cannot turn over their fleet quickly once the technologies become proven enough for manufacturers to begin mass producing newly powered vehicles.

What if the technology does not match up to expectations? What would the projected cost of energy be at that time? How would the cost of fleet replacement be made by our small businesses? Why not give businesses tax incentives or credits to create the means to fund gigantic changes?

Biofuel production needs certain crops to produce fuel. How would we manage inadequate supplies in the case of crop failures? When the world faces the need to produce crops only for human consumption how would we manage the elimination or reduction of crops needed to produce biofuels?

We feel a simple amendment in HRS chapters 196-10.5(a)(6) and 226-17(3) would mitigate the unknown:

“ . . . Ground transportation by 2045 unless non-fossil fuel sources are projected to be inadequate to power Hawaii's ground transportation industries, or the cost of appropriately powered vehicles are deemed to be too onerous to attain a fleet size adequate to service Hawaii's residents and visitors.

Thank you.



SENATE COMMITTEE ON TRANSPORTATION & ENERGY

Feb. 10, 2016, 1:15 P.M.

Room 225

(Testimony is 7 pages long)

TESTIMONY IN STRONG SUPPORT OF SB 1186

Aloha Chair Inouye, Vice Chair Dela Cruz, and Committee Members,

Blue Planet Foundation **strongly supports** SB 1186, which sets a planning vision to shift to renewable ground transportation in Hawai'i by 2045. Thank you for this opportunity to testify.

It is important to be clear that this bill does *not* establish a mandate on personal vehicles. Nor does it mandate that any particular state agency will bear responsibility for implementing this vision.

Rather, this bill serves a similar purpose to legislative planning policies worldwide. It establishes a vision that will spur alignment and collaboration on infrastructure efforts by private and public entities, thus favoring more effective solutions. It will also set market expectations, opening the door to innovation. And by rallying behind the importance of sustainability for our islands, it will encourage personal action, to support the shared goal of island sustainability.

In the following pages, this testimony provides information on:

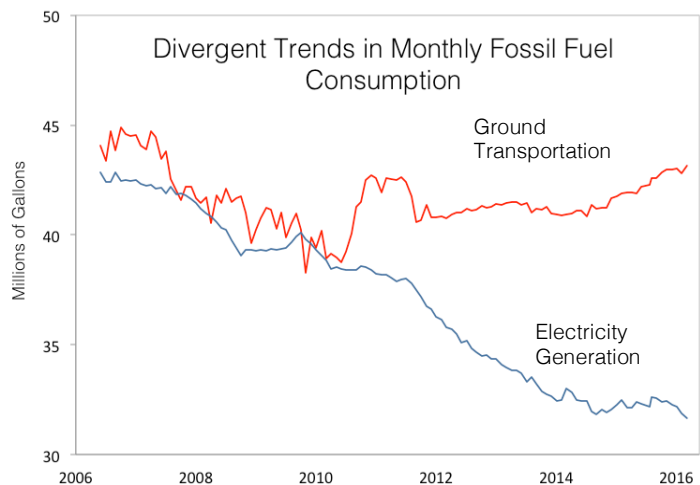
1. The **importance of establishing a vision**, as illustrated by the adoption of a 2045 target for 100% renewable electricity. That legislative vision has matured into an analytical plan to achieve the target while saving \$6 billion for consumers in comparison to the status quo. Energy affects everyone, and in this context, half-measures will fail.
2. The **substantial cost-savings** that are calculated to arise from replacing the fossil fuel status quo with 100% renewable transportation, including \$150 million in calculated electricity and vehicle savings from the shift to electrified transportation.
3. A **minor suggested clarification** in the bill's preamble, to confirm that this bill does not impose an individualized prohibition on gasoline vehicles.
4. At the end of this testimony, we provide information on several Frequently Asked Questions about the importance, cost-effectiveness, and **achievability 100% renewable transportation system by 2045**.

The Importance of Establishing a Vision

The legislature has long stressed the importance of the state's transition to a renewable energy system. For example, in 2001's Act 272 the legislature adopted renewable standard for electricity, recognizing "the economic, environmental, and fuel diversity benefits of renewable energy resources" and encouraging further development of renewable resources. The legislature found that "while Hawaii is a national leader in the development of renewable energy resources for electricity production, there may be more that the State can do to encourage the development and implementation of renewable energy. These efforts can reduce the amount of imported oil used for the generation of electricity."

More recently, Hawai'i's leaders set a vision for 100% renewable electricity by 2045. That vision has become a driving force in electricity planning,¹ and a focal point for a variety of key energy issues. **In the most recent plan, the shift to 100% renewable energy is forecasted to save consumers \$6 billion compared to the fossil fuel status quo.**

But while Hawai'i has made substantial progress on policies, programs, and actions to reduce burning fossil fuels in the electricity sector, progress on reducing transportation fossil fuel consumption has lagged. **And unlike for the electricity sector, state law has not yet specified target dates for progress on renewable transportation.** This is one illustration of the importance of long-term targets in setting the state's course for the energy sector.



Some commenters are sure to believe that a 2045 target date is too aggressive. Others, particularly those driven by the urgency of the climate crisis, are equally sure to believe that 2045—30 years in the future—is too passive. Other than the passage of time, no studies, working groups, or other efforts will fully resolve that dichotomy.

But in either scenario, establishing a planning vision will spur alignment and collaboration on planning and infrastructure efforts, thus leading to more effective solutions. It will set market expectations, opening the door to innovation. And it will encourage personal action, to support the shared goal of island sustainability.

¹ For example, Hawaiian Electric's most recent power plan indicates that the renewable energy standard will be met by 2040.

Lower Costs for Consumers Through Clean Transportation and Clean Electricity

Because electrified transportation will be one important part of the clean transportation transition, the state's renewable electricity goal goes hand-in-hand with the transportation goal in this bill. **Electricity is already a less expensive fuel alternative to gasoline.** But a growing fleet of EVs can provide a double benefit by helping to balance renewable energy on the grid and lower the cost of electricity for everyone. This is a win-win. **It also underscores the need to align the state's renewable electricity target (2045) with its transportation target.** This is a driver behind selecting 2045 as the target date for this vision.

As noted in the attached Frequently Asked Questions, **a U.H. Engineering Professor has calculated that renewable electrified transportation will save consumers around \$150 million per year.** More details on economic benefits, the achievability of 100% renewable transportation, and other topics are included in the attached Frequently Asked Questions.

More information on these economic benefits are included in the attached FAQ.

Suggested Amendments

We suggest adding a clarification to Section 1, to explain that by targeting 100% clean transportation in the state planning act, this bill does not create any individual prohibitions on using gasoline or diesel vehicles. A small and aging sector of such traditional vehicles (e.g. for the collector market or other uses) is likely to exist after 2045. This can be addressed through solutions such as biofuels. The attached Frequently Asked Questions provides more information on the local biofuel industry. Nonetheless, the bill's planning target can be achieved if the state's transportation norms and infrastructure are powered without fossil fuels by 2045.

SUGGESTED AMENDMENTS

Section 1.

The purpose of this Act is to update the Hawaii State Planning Act to set a **vision and** target date for the elimination of Hawaii's dependence on imported fossil fuels in the ground transportation sector. This Act also updates the Hawaii clean energy initiative to reflect the State's target of achieving a one hundred per cent renewable energy economy no later than 2045. As a vision and planning target, this Act does not create an individualized prohibition on gasoline vehicles.

100% Clean Ground Transportation Frequently Asked Questions

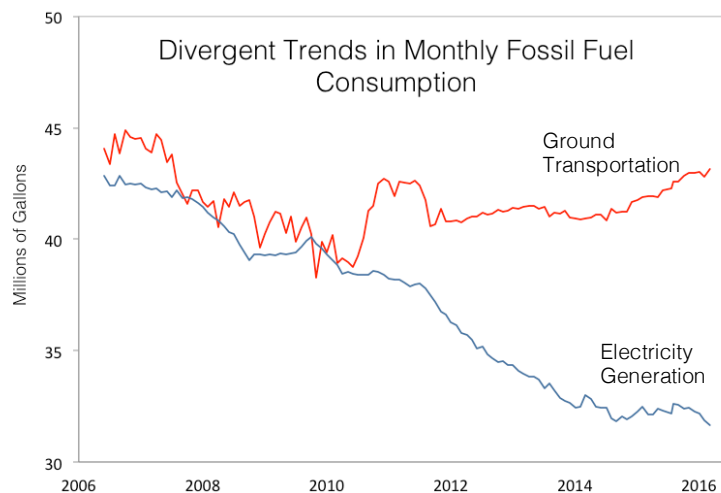
Why is a 100% Clean Transportation Necessary?

Hawai'i's policy leaders have long stressed the importance transitioning the state's energy system to clean energy. This transition has been driven by economics, and also by concern for our shared environment. As described by Governor George Ariyoshi:

“Stewardship . . . mean living with the constant reminder that our actions occur in context of other people over generations.”

Ground transportation accounts for around one-third of the state's fossil fuel consumption and greenhouse gas emissions. A resilient economy and a healthy environment require that we consider these impacts. This is especially important in an age where 194 countries—essentially every country on earth—have agreed that it is imperative that we rapidly reduce greenhouse gas emissions.²

The state has long utilized planning targets as a way to set a course for reducing fossil fuel consumption in the electricity sector.³ This transformation is on track to reach the goal of 100% renewable energy by 2045. In contrast, fossil fuel consumption for ground transportation is essentially unchanged from a decade ago.



Closing this gap will require many efforts by many entities, both today and in the future. The importance of HB 1580 is that it can align those efforts around a common vision, set by the state's leaders.

What are the Economic Benefits?

The transition to clean energy creates many opportunities for cost savings and economic benefits. As an analogy, the most recent analysis for 100% renewable electricity in the state shows that 100% renewable energy will save consumers \$6 billion compared to the fossil fuel status quo.

² See Paris Agreement, U.N. Framework Convention on Climate Change (2016).

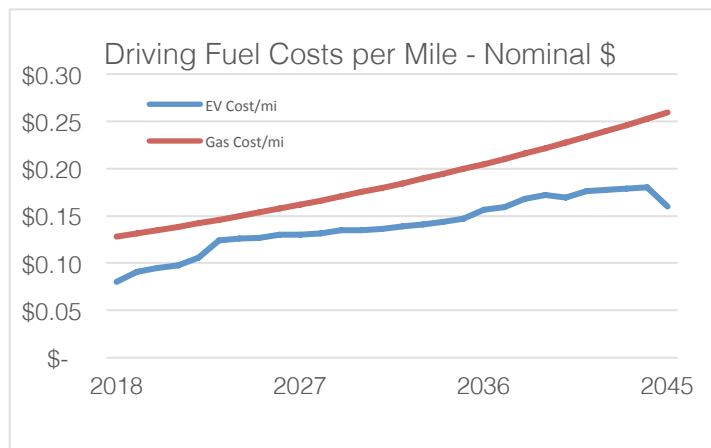
³ See H.R.S. § 269-91.

For transportation, some of these clean energy opportunities come in the form of more efficient multi-modal transportation (e.g. saving money with more walking, biking, and public transit). Other opportunities arise from fuel-cost savings.

For example, the transition to clean energy is sure to include more electric passenger vehicles, buses, and fleet vehicles (“EVs”).⁴ This electrification trend provides a double benefit. First, the cost of powering an EV is generally less than powering an equivalent gasoline vehicle. So consumers can save money—today—by switching to an EV. Second, a growing fleet of EVs can help to balance renewable energy on the electric grid. This can lower the cost of electricity for everyone.

University of Hawai'i Engineering Professor, Matthias Fripp, has created a quantitative model of the state's transition to renewable energy. He has calculated that a 100% renewable transportation system, with smart EV charging to match renewable electricity generation, can be expected to **save utility consumers approximately \$150 million per year in combined fuel, vehicle, and electricity costs.**⁵

Blue Planet Foundation has evaluated recent projections for electricity rates in Hawai'i, comparing them to a World Bank estimate of the long-term trend for increasing oil prices, under a variety of transportation scenarios. This comparison indicates that we can expect electricity to remain the cheaper fuel option through 2045, and that the potential aggregate benefit in fuel savings is on the order of several billion dollars.



Is 100% Clean Transportation by 2045 Achievable?

Much like in the electricity sector, many factors will influence the pace of the state's transition to clean energy. While some of those factors remain unknown (as is expected for any 30-year planning horizon), several important factors are apparent today. **Each of them supports the conclusion that the bill's target is achievable by 2045 or sooner.**

1. The Rise of Battery Electric and Fuel Cell Vehicles

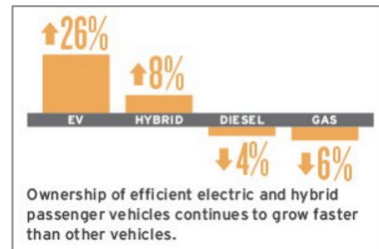
While familiar clean transportation options (like biofuels, walking, biking, public transit, etc.), and

⁴ For example, auto executives recently polled by KPMG identified EVs as the top trend in the car market between now and 2025.

⁵ See M. Fripp, *Effect of Electric Vehicles on Design, Operation and Cost of a 100% Renewable Power System* (Apr. 2016).

emerging technologies (like hydrogen) will undoubtedly play an important role, we expect the emergence of electric vehicles (EVs) to quickly and radically shift the state's transportation energy landscape.

In Hawai'i, the growth rate of EV sales has far outpaced other fuel options. On a more global scale, important factors such as the cost of producing batteries for electric cars has fallen dramatically, from around \$1,000 per kWh to less than \$200. As we enter the second generation of modern EVs, a steadily increasing variety of models are coming onto the market with lower prices, larger batteries, and longer driving ranges. Nearly every major auto manufacturer is investing heavily in battery electric and/or hydrogen fuel cell electric vehicles, and views zero emission vehicles as the long-term solutions for transportation fuels.



Hawai'i is particularly well-suited for this acceleration of EV adoption because electric batteries perform well in our year-round warm climate. Our island geography often restricts the distances we need to drive, making range anxiety less of an issue compared to other locations. Hawai'i is already in the top three states by proportion of registered vehicles that are electric, and we have the second highest ratio of electric charging stations to population of any state.

2. Transportation will Become More Multi-modal, Networked, Autonomous

The future of transportation in Hawai'i is likely to include more efficient land use that reduces travel demand and travel distances, significant improvements in mass transit, bicycling and pedestrian infrastructure, and new mobility alternatives such as autonomous taxis and other networked 'mobility as service' options. These changes are likely to shift a sizable percentage of Hawai'i's trips from personal automobiles to alternative modes and to significantly reduce transportation energy use.

With sufficiently transformative policies, the small sector of gasoline vehicles can be a small fraction of the total ground transportation sector (around 6%).

3. Biofuels are a Near-Term and Long-Term Option

Hawai'i is home to one of the leading pioneers of biofuel production, Pacific Biodiesel. Today, the state is producing commercial quantities of biofuels using local feedstocks.

In a report commissioned by DBEDT in 2010, the consultant firm Black & Veatch Corporation performed an analysis of the potential for biofuel production in the state of Hawai'i. The report found that the maximum theoretical capacity of biofuel production in the state was equal to the equivalent of 848 million gallons of "green gasoline" or 779 million gallons of "green diesel" per year (see chart below). This is around 2.5 times the total amount of gasoline and diesel used in ground transportation in Hawai'i today.

Table 1-6. Maximum Theoretical Hawai'i Biofuel Production Potential.					
Feedstock	Biofuel 10 ¹² Btus/yr	Ethanol million gal/yr	Green Gasoline equivalent million gal/yr	Green Diesel equivalent million gal/yr	Green Jet Fuel equivalent million gal/yr
Energy Crops	101	1,202	786	722	751
Cellulosic Wastes	8	95	62	57	59
Total:	109	1,297	848	779	810

Source: DBEDT (2010). "The Potential For Biofuels Production in Hawaii"

The report also concluded that "...it should be quite achievable for biofuels produced from in-state resources to displace 20 percent [over 50 million gallons] of the gasoline and diesel fuel needed for vehicle transportation in Hawai'i. This could be accomplished using about 10 percent of available agricultural land for energy crop production to supply the required biomass feedstock."

In short, local biofuels are a viable option for powering significant portions of the transportation sector.

From: mailinglist@capitol.hawaii.gov
Sent: Thursday, February 9, 2017 1:05 PM
To: TRE Testimony
Cc: nmorin99@yahoo.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/9/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Noel Morin	Big Island EV Association	Support	No

Comments: The Big Island Electric Vehicle Association fully supports that all actions that enable our state's ability to wean itself from fossil fuel and improve our impact to our environment. Climate change is here and is, unfortunately, not going to wait for some future panacea. We must take steps today as some of the solutions will take time and effort to execute. We're in full support of this measure.

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

SanHi Government Strategies

a limited liability law partnership

Gary M. Slovin
Mihoko E. Ito
R. Brian Tsujimura

c/o Ashford & Wriston • 999 Bishop Street, Suite 1400
Honolulu, Hawaii 96813
(808) 539-0400
governmentaffairs@awlaw.com

gslovin@awlaw.com
mito@awlaw.com
rtsujimura@awlaw.com

DATE: February 9, 2017

TO: Senator Lorraine Inouye
Chair, Committee on Transportation and Energy
Submitted via Capitol Website

RE: **S.B. 1186 – Relating to Energy**
Hearing Date: Friday, February 10, 2017 at 1:15 p.m.
Conference Room: 225

Dear Chair Inouye and Members of the Committee on Transportation and Energy:

On behalf of the Alliance of Automobile Manufacturers (“Alliance”), we submit these **comments** on S.B. 1186. The Alliance is a trade association of twelve car and light truck manufacturers including BMW Group, Fiat Chrysler Automobiles, Ford Motor Company, General Motors Company, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, Volkswagen Group of North America, and Volvo Car USA.

Automobile manufacturers have invested heavily in the research and development of alternative fuel vehicles, and respect efforts to reduce petroleum consumption in the transportation sector. The Alliance supports efforts to increase the penetration of alternative fuel vehicles, but is concerned that this measure places unrealistic goals in statute. There will still be gasoline-fueled vehicles driven in 2045, since any plug-in hybrid electric vehicle sold beyond 2045 would still require petroleum to run. Given that the national fleet average age of vehicles is currently 12 years, and in Hawaii, many people keep their cars and trucks much longer than 12 years, in order to meet the 2045 goal, it would require that by 2033, at a minimum, all vehicles sold in Hawaii would have to be gasoline-free alternative fuel

Gary M. Slovin
Mihoko E. Ito
R. Brian Tsujimura
C. Mike Kido
Tiffany N. Yajima
Matthew W. Tsujimura

vehicles. California, which has the most rigorous standards in the country, does not contemplate that scenario occurring until 2050.

In 2015, the Department of Business, Economic Development and Tourism commissioned the International Council on Clean Transportation (“ICCT”) to analyze Hawaii’s transportation sector and work with stakeholders to develop actionable tactics to reduce petroleum consumption. The culmination of those efforts resulted in the Hawaii Clean Energy Initiative Transportation Energy Analysis report which recommended reasonable tactics to reduce fuel consumption in the ground transportation sector. As a participant to the working group meetings, the Alliance believes there should be more thorough consideration of the issues raised and the recommendations provided in the ICCT’s report before establishing such ambitious fuel reduction goals in statute.

Thank you for the opportunity to submit these comments.



Healthy Climate Communities

February 7, 2017

Dear Chair Inouye, Vice Chair Dela Cruz and Committee members,

I urge you to pass SB1186 with the full goals set forth within it to plan for 100% renewable ground transportation by 2045.

I am very concerned about the negative impacts we are already witnessing due to climate change - temperatures so hot our children cannot concentrate in school, coral bleaching, increased frequency of hurricane warnings, and changes in rainfall patterns which impact both agriculture and preservation of native plants. We need you to demonstrate leadership at the State level to slow the pace of climate change. We cannot hope for progress from the federal government at this time.

Thirty years to achieve the transition to 100% renewable transportation is a very long time, given that the technology already exists today. The transition from horses and buggies to automobiles was much faster. Still, by setting a firm date and a mechanism to begin planning, you will frame the context in which future investment decisions in infrastructure are made.

Thank you for your leadership.

Sincerely,

Dr. Lisa Marten
Executive Director
Healthy Climate Communities



TO: SENATE COMMITTEE ON TRANSPORTATION AND ENERGY
Senator Lorraine R. Inouye, Chair
Senator Donovan M. Dela Cruz, Vice Chair

FROM: Richard Parry
President of Hawaii Petroleum Marketers Association

HEARING

DATE: Friday, February 10, 2017

TIME: 1:15 p.m.

PLACE: State Capitol, Conference Room 225

RE: Testimony on S.B. No. 1186 Relating to Energy

Chair Inouye, Vice Chair Dela Cruz, and Members of the Senate Committee on Transportation and Energy, I am Richard Parry, President of the Hawaii Petroleum Marketers Association (“HPMA”). HPMA is a non-profit trade association comprised of members who directly market liquid motor fuel products across the Hawaiian Islands. Our membership includes individuals and companies who operate as independent marketers, jobbers or distributors of petroleum products and who buy liquid motor fuel products at the wholesale level and sell or distribute products to retail customers, other wholesalers, and other bulk consumers. HPMA’s primary purpose is to protect and advance its members’ legislative and regulatory interests in the Hawaiian Islands and Washington, DC.

S.B. No. 1186 seeks to amend Hawaii's Clean Energy Initiative Program to eliminate Hawaii's dependence on imported fossil fuels for electrical generation and ground transportation by setting an arbitrary target of 2045 for the state to reduce and eliminate the use of imported fossil fuels for electrical generation and for use in ground transportation. S.B. No. 1186 also seeks to amend Hawaii's State Planning Act to reduce and eliminate imported fuels for ground transportation by year 2045.

For the reasons set forth below, we recommend that S.B. No. 1186 be deferred.

While 100% clean fuel for ground transportation is an admirable goal, S.B. No. 1186 sets a completely arbitrary target date and fails to contemplate that the goal of eliminating fossil fuels may not be possible given the state of existing technologies for powering ground transportation. Whatever future technologies become available for ground transportation will require hundreds of millions of dollars of investment to replace

Testimony of
Hawaii Petroleum Marketers Association

S.B. No. 1186

Hearing Date: Friday, February 10, 2017

the existing liquid motor fuel infrastructure, which includes internal combustion automobiles, gas stations, fuel terminals, and oil refineries. It is impossible to know today if there will be private or public investors available and willing to make the necessary investments in the new, and for now unknown, technologies.

As we have seen in the past, imposing artificial limits on consumer demand for motor fuels in Hawaii will have adverse unintended consequences. S.B. No. 1186 ignores the potentially chilling effect and negative impacts to private capital investment in Hawaii if the State establishes a completely arbitrary end date to eliminate fossil fuel imports. S.B. No. 1186 could scare away private investors to fund the necessary replacement of end-of-life assets, thus raising health and safety issues for Hawaii's residents. If new infrastructure that will ultimately be required by S.B. No. 1186 cannot meet the bill's arbitrary target deadlines, small and large businesses in Hawaii will be severely impacted, including workforce layoffs, forfeitures and bankruptcies, as assets are closed and shuttered before their useful lives have ended. This bill presents many challenges that could ultimately present risks that severely damage the Hawaii economy, including in ways that we cannot imagine today.

Even if the state's plans call for a phased in approach before totally eliminating fossil fuel imports, there will be adverse unintended consequences. Although it was in the 1970s, many still remember the negative impact that rationing had on the national economy due to the oil embargo. Or more recently, who does not remember the volatile price swings and other unintended consequences of the poorly designed 2005 Hawaii "Gas Cap" law?

S.B. No. 1186 does not address the question of how the state will implement reducing (or rationing) the sale of motor fuels in the future if reduced volume "limits" are lower than the demand for ground transportation fuel. For example, how will the state determine the volumes of motor fuels that each island will be eligible to sell (i.e., the island of Hawaii has fewer people residing there than on Oahu, however, it comprises a much larger land area with higher transportation needs per capita)? How will the state determine how much motor fuel is allocated to each individual and business in the state? And how will the state determine who is allowed to sell motor fuel in the state, and how much motor fuel each company is allowed to sell?

Finally, S.B. No. 1186 fails to address how the state will recoup the more than \$150 Million it will lose in annual tax revenues based on current state taxes on motor fuels (fuel tax, barrel tax and general excise taxes).

For these reasons, we recommend that S.B. No. 1186 be deferred. Thank you for the opportunity to testify and provide our concerns to S.B. No. 1186.



Headquarters
and Refining

91-480 Malakole St.
Kapolei, HI 96707

DATE: Friday, February 10, 2017
TIME: 1:15pm
PLACE: Conference Room 225
State Capitol
415 South Beretania Street

Sente Bill 11186, Relating to Energy

Chair Inouye, Vice Chair Dela Cruz and Members of the Senate
Committee on Transportation and Energy,

Island Energy Services, LLC (IES) purchased the assets formerly owned and operated by Chevron on November 1, 2016 and continues to operate as a key supplier of petroleum products to the Hawaii market and economy. SB1186 establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045. This is a significant undertaking and needs to be well thought out as there are complex issues regarding supply, delivery and timing of fuel. IES respectfully suggests that this committee adopt the working group language found in a similar bill, HB 1580, regarding this issue. A working group would enable various stakeholders in the energy arena to voice their ideas and views, and work collaboratively with DBEDT on this objective. Mahalo for the opportunity to testify on this bill.

Mahalo,

Al Chee
Vice President
Island Energy
Retail Marketing & Community Relations



Brian Kitagawa, President
Dave Rolf, Executive Director

HADA testimony with COMMENTS on
SB 1186
RELATING TO ENERGY

Presented to the Senate Committee on Energy and Transportation
at the public hearing to be held
1:15 p.m. Friday, February 10, 2017
in Conference Room 225, Hawaii State Capitol

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

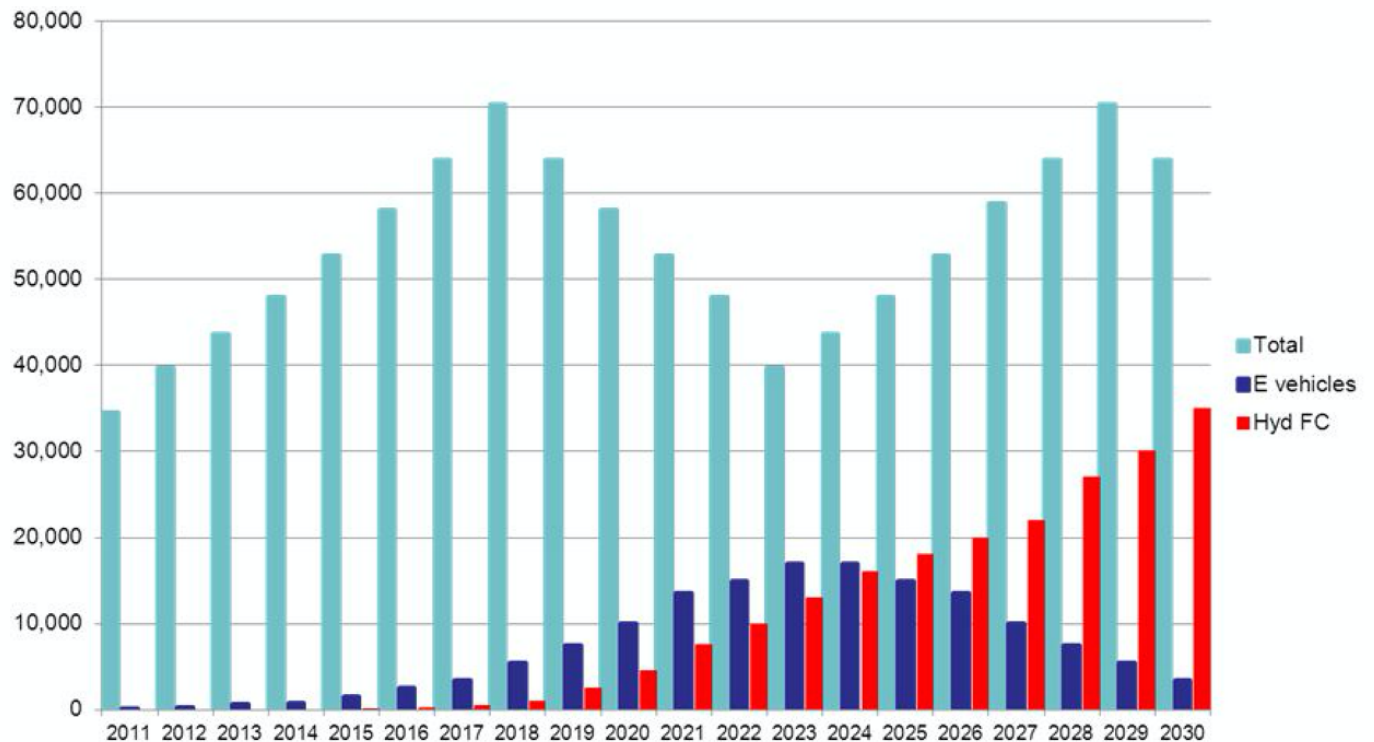
Chair Inouye, Vice Chair Dela Cruz, and Members of the Committee:

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 renewable energy for use in vehicles in Hawaii. The association supports the measured and considered transition to electric vehicles and hydrogen fuel cell electric vehicles, proposed in Senate Bill 1186, and offers the following comments on setting a goal to achieve 100% use of renewable fuel for ground transportation by 2045.

SB 1186's renewable fuel goal of 100% for the ground transportation sector by 2045 represents an extension of the 40% use goal for renewable fuel by 2030, established in the Hawaii Clean Energy Initiative. See the HCEI graphic below.



In 2010, HADA created a projection of the adoption rate for renewable fuel vehicles—electric vehicles and hydrogen fuel cell electric vehicles-- that would be “needed” to hit the HCEI 40% renewable goal.



HADA's Golden Gate Graph, nicknamed because of its resemblance to the bridge, shows the projected annual sales of new cars and light trucks, including, the 400,000 electric and hydrogen fuel cell vehicles "needed" to meet the Hawaii Clean Energy Initiative's goals—40% of the light vehicles in operation. So far, HADA's projections have been surprisingly accurate. The red and blue bar levels are laudable goals but likely unattainable without a strong communications plan—starting with \$3 million needed from the Hawaii Energy fund. With gasoline prices remaining low for the foreseeable future, recent EV uptake numbers are not currently hitting the projection.

What's just up the road?

New car dealers have enjoyed a thrilling, sometimes curvy, road up the hill, filled with great views, and exciting turns, for the past few years.

The same could be said for the Hawaii economy, which always seems to closely correspond to the bars on the graph showing the activity at new car dealerships.

New vehicle sales, after topping off, like old Pharaoh's dream, are in for some leaner years ahead. One can plan for just about anything ahead using these projected new car numbers.

There will remain about a million cars on the roads. The average of about 50,000 new cars and trucks imported each year, is offset by the 50,000 older vehicles coming off the roadways because the average lifespan of vehicles of about 20 years.

Hawaii's population will increase through 2030, but the number of vehicles on the roadways will remain relatively constant at one million vehicles because alternative public transportation is being developed, and people nowadays are doing more walking and biking. Another positive factor is that electronic commuters--those employees working at home via computer--are becoming more prevalent.

It's not a time to be afraid of adding more highway lanes.

The 30-minute city is a great concept.

With more highway lanes, many of which should have embedded electric induction chargers for the future's thousands of electric cars and autonomous cars, then, some 8 of 10 of commutes to work would take less than 30 minutes.

Life can soon be a lot more enjoyable for all.

Part of the problem facing Hawaii in the recent past has been inaccurate estimates. This lack of a clear-eyed understanding of costs associated with public policy has resulted in public spending for ground transportation that has become uncontrollable.



HADA dealers have ardently pursued the state goals which were set by stakeholders through the legislative process.

The new car dealers association welcomes the opportunity to participate in this bill's goal-

setting process, for 2045.

Members of the new car dealers association bring a great deal of experience to the table. That experience that has proven useful in predicting results from various public policy decisions.

In 1998, an accurate prediction of tax revenues was made. In that year, projected new car sales were wrapped into the calculation to determine anticipated tax revenues. The calculation also used the number of construction workers employed, and hotel room revenue numbers to accurately predict the future tax revenues, missing the mark by only tens of thousands of dollars. The Council on Revenues missed the mark by \$342 million.



Hawaii has an abundance of renewable fuel resources. Harnessing them with deliverables to the consumer that make economic sense for the average household is the what is needed for market-based uptake of the new technology and new renewable fuels.

See the chart relating to Hawaii's abundant resources...

The graphic is titled "Hawaii's Cars & Energy". In the top left, it states "650,000 T. Sato tiles" and "654,000 vehicles on Oahu". In the top right, it says "ANNUAL FUEL USE: 500 MILLION GAL. of gasoline are used annually by vehicles in Hawaii" next to an oil barrel icon. The central part of the graphic shows a large, colorful, circular platform with a grid pattern, surrounded by six vertical panels representing energy sources: WIND, WAVE, GEO THERMAL, OTEC, SOLAR, and H-PWR. At the bottom, there are logos for CHEVROLET, NISSAN, MITSUBISHI, TOYOTA, and the 2010 HAWAIIAN INTERNATIONAL AUTO SHOW.

HADA dealers welcome the opportunity to participate in the process of Hawaii's transition to renewable fuel vehicles.

Respectfully submitted,
David Rolf
Executive Director, Hawaii Automobile Dealers Association



SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

February 10, 2017 1:15PM Room 225

IN SUPPORT: SB1186 RELATING TO ENERGY

Aloha Chair Inouye, Vice Chair Dela Cruz, and committee members,

On behalf of the Young Progressives Demanding Action of Hawaii, I strongly support Senate Bill 1186, a bill that would enact a 100% renewable portfolio standard (RPS) for Hawaii's ground transportation sector by 2045.

SB 1186 is a wonderful embellishment to the existing 100% electricity RPS in Hawaii. This act created a movement to functionally relinquish dependence on petroleum to create more reliable energy security, stimulate Hawaii's economy, and decrease harmful emissions from electricity production; however, the catch is that electricity is only part of the battle. In 2014, almost 30% of petroleum consumed in Hawaii was by ground transportation. Below, figure 1 depicts the overall end-use consumption by sector in Hawaii during 2014. Without intervention, the ratio for petroleum consumption in Hawaii's ground transportation sector will only continue to rise due to growing population coupled with an from a predicted increase in dependence on renewable electricity.

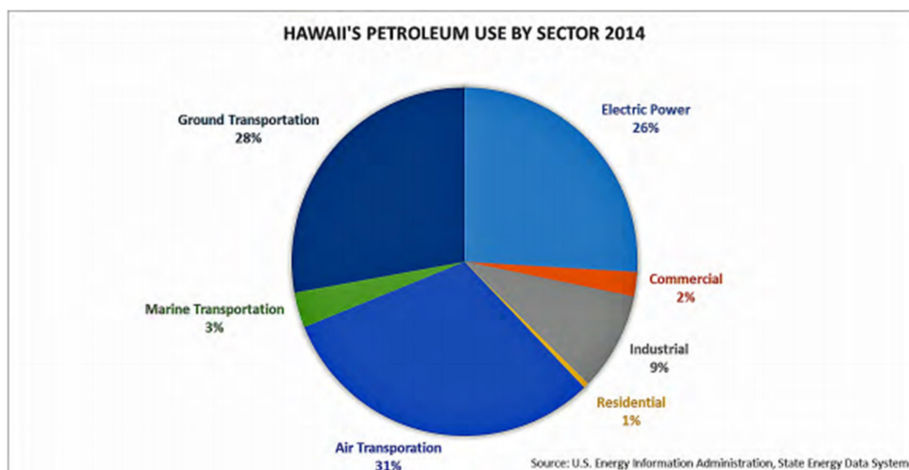
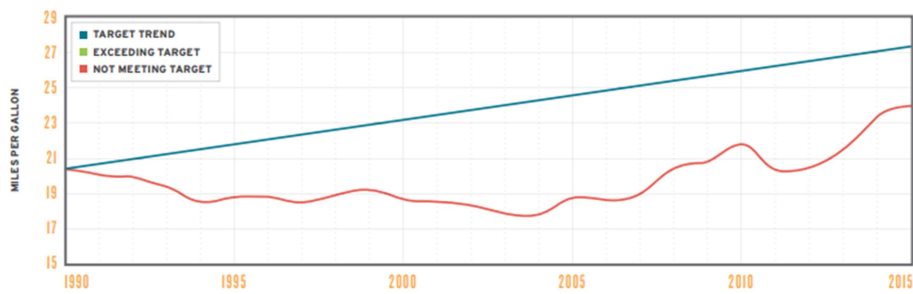


Figure 1. Source: Hawaii State Energy Office
[https://energy.hawaii.gov/wp-content/uploads/2011/08/FF_Nov2016.pdf]

At a 24 MPG average, we are on track to meet our 30 MPG goal by 2030; however, our vehicle efficiency is not quite aligning with the targeted trend (figure 2). This is likely due to an increased demand for light trucks and SUVs in the state of Hawaii. According to DBEDT’s 2015 State of Hawaii Data Book, total truck sales surpassed car sales in 2014 (table 1). Federal CAFÉ standards give more liberal restrictions to vehicles with a large footprint than smaller ones; this means that as the large trucks get larger, they experience less stringent efficiency standards. Due to the discrepancies in federal CAFÉ standards, implementing a State standard for transportation is crucial to increase vehicle efficiency moving forward. In the Blue Planet Foundation’s 2016 Report Card, Hawaii’s transportation sector scored a D+ (on an A-F scale). This score rests on the pinnacle that our vehicle efficiency rates are subpar and transportation is in large-part a contributor to our fossil fuel emissions in Hawaii.

VEHICLE EFFICIENCY



Statewide motor vehicle efficiency is derived from gasoline, highway diesel, and highway LPG consumption, and from vehicle miles traveled, reported in State of Hawaii Department of Taxation Annual Fuels Reports and the 2014 State of Hawaii Data Book, Table 18.17. Target trend is based on the Hawaii Clean Energy Initiative Road Map: 2011 Edition, targeting average vehicle efficiency of 30 mpg for passenger cars, and 22 mpg for light trucks, by 2020, and also on 2013 relative distributions of registered passenger cars and light trucks reported in the 2013 State of Hawaii Data Book, Table 18.06.

Figure 2. Source: Blue Planet Foundation

[https://blueplanetfoundation.org/wp-content/uploads/2016/12/Blue_Planet_2016_Energy_Report_Card.pdf]

Table 1. Source: DBEDT

[<http://files.hawaii.gov/dbedt/economic/databook/db2015/section18.pdf>]

Type and place of manufacture	2012 1/	2013	2014
Total	42,506	48,721	54,162
Car	21,925	24,761	26,504
Light truck	20,581	23,960	27,658
Domestic Brands	8,105	9,860	10,658
European Brands	5,129	5,315	5,504
Japanese Brands	26,063	30,255	34,187
Korean Brands	3,209	3,291	3,813

I do, however, believe that Hawaii is a true pioneer in renewable energy. Currently, it is the only state in the U.S. with the ambitious goal of harvesting 100% clean electricity. Why not push it further and mandate that all energy consumed by the ground transportation sector be in the form of clean energy too? There are current movements to further implement clean

transportation in Hawaii such as the Hawaii Sustainable Initiative, a flexible gas tax (SB1187/HB1259), a biofuel pilot program (SB237/HB1476), and growing demand for more accessible charging stations. If executed properly, we could be thriving in a society where we can drive using sustainable biofuels and charge our zero-emissions vehicles on completely renewable electricity by the year 2045.

The overarching benefit of this bill is that it is not strictly mandating businesses, airlines, travel agencies, or civilians to switch to zero-emissions vehicles else there be consequences; rather, this bill is just the start of a momentous goal to get to a 100% renewable ground transportation sector. It encompasses flexibility for amendments in the future yet is integrated with enough structure to begin piloting programs and partnerships to spearhead the clean transportation revolution here in Hawaii.

Relying on petroleum for electricity and transportation is not just unsustainable, but it is harmful to the environment and human health. Current and future generations look to you, our leaders, to protect our rights to clean air, clean water, and abundant resources. We can make a difference in the lives of our people and our wildlife inhabitants if we cut our emissions in both the electricity and transportation sectors. The Young Progressives Demanding Action Hawaii asks that you consider all of the potential benefits of passing this bill and take initiative for the health and well-being of Hawaii.

Thank you,

Jamee Allen

Environmental Chair | Young Progressives Demanding Action Hawaii

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 8, 2017 3:39 PM
To: TRE Testimony
Cc: htyeric@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/8/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Eric Johnson	Individual	Support	No

Comments: Dear Chair and Members of the Committee on Transportation and Energy, I strongly support SB1186. Hawaii's energy policy already aims to eliminate the use of imported fossil fuels for electricity and ground transportation. Two years ago you enacted a deadline for 100% renewable energy in the electricity sector re-framed energy issues, fostered collaboration, and catalyzed progress in electricity regulation and planning. Now it is time to do the same for the transportation sector. Sincerely, Eric Johnson

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:37 PM
To: TRE Testimony
Cc: moonierjames@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
James Moonier	Individual	Support	No

Comments: Members of the Committee on Transportation and Energy, I strongly support SB1186 with no amendments. Please pass this bill for the good of Hawaii and the planet. Hawaii's energy policy already aims to eliminate the use of imported fossil fuels for electricity and ground transportation. Two years ago you enacted a deadline for 100% renewable energy in the electricity sector re-framed energy issues, fostered collaboration, and catalyzed progress in electricity regulation and planning. Now it is time to do the same for the transportation sector. James Moonier

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:34 PM
To: TRE Testimony
Cc: jean67@me.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
jean homsy	Individual	Support	No

Comments: Dear Chair Inouye, Vice Chair Dela Cruz and members: Please pass SB1186 without amendments. Without a firm plan for infrastructure Hawaii residents will not be able to take advantage of the new transportation technologies such as electric and hydrogen vehicles. Residents who want to do the right thing for the planet and their pocketbooks deserve this opportunity. With appreciation, Jean Homsy

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:31 PM
To: TRE Testimony
Cc: donascot67@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

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

Comments: Dear Chair Inouye and TRE Committee Members, I strongly support and urge you to facilitate the passage of SB1186. Given Hawaii's ample wind, sun, geothermal and other ways of generating clean renewable energy, weaning our transportation modes and systems away from fossil fuels should be a high priority for the State. Setting a firm date for a complete transition to renewable fuels will facilitate making this happen. Sincerely, Scott Sullivan Kaneohe

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:28 PM
To: TRE Testimony
Cc: alohasteph@mac.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
stephanie frazier	Individual	Support	No

Comments: Aloha Senators, I ask you to pass SB1186. Please do not weaken it. Using local, renewable energy in Hawaii's transportation sector will clean our air, slow climate change, save money on imported fossil fuel, stimulate our economy, and make our energy supply more secure. We need to set a firm date so that decision makers will take it into account when planning. Thank you, Stephanie Frazier

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:24 PM
To: TRE Testimony
Cc: vickieinkailua@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Vickie Fullard-Leo	Individual	Support	No

Comments: Dear Chair and Members of the Committee on Transportation and Energy, I request that you pass SB1186. Without a firm plan for infrastructure Hawaii residents will not be able to take advantage of the new transportation technologies such as electric and hydrogen vehicles. Residents who want to do the right thing for the planet and their pocketbooks deserve this opportunity. Renewable energy stored in our cars and buses will help balance renewable energy on the grid. This will allow more people to benefit from solar panels on their homes. Aloha, Vickie Fullard-Leo

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:20 PM
To: TRE Testimony
Cc: jlarson@lejardinacademy.org
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Julie Larson Hicks	Individual	Support	No

Comments: Aloha. I request that you support HB1580. Using local, renewable energy in Hawaii's transportation sector will keep our air clean, slow climate change, save money on imported fossil fuel, stimulate our economy, and make our energy supply more secure. We need to set a firm date in order to guide decision makers when they are making investment decisions. Mahalo, Julie Larson Hicks Kaneohe

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:18 PM
To: TRE Testimony
Cc: sksb@earthlink.net
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Karen Simmons	Individual	Support	No

Comments: TRE Chair Inouye, Vice Chair Dela Cruz and Members: I ask that you support and pass HB1580. Without a firm plan for infrastructure Hawaii residents will not be able to take advantage of the new transportation technologies such as electric and hydrogen vehicles. Residents who want to do the right thing for the planet and their pocketbooks deserve this opportunity. Thank you, Karen Simmons

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:11 PM
To: TRE Testimony
Cc: cochrah@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Heather Cochran	Individual	Support	No

Comments: Dear Chair Inouye and TRE Committee Members, I, Heather Cochran, strongly ask you to pass SB1186. Hawaii's energy policy already aims to eliminate the use of imported fossil fuels for electricity and ground transportation. Two years ago you enacted a deadline for 100% renewable energy in the electricity sector re-framed energy issues, fostered collaboration, and catalyzed progress in electricity regulation and planning. Now it is time to do the same for the transportation sector. Sincerely, Heather Cochran, MA, MEd

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:07 PM
To: TRE Testimony
Cc: laniquinns@yahoo.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

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

Comments: TRE Committee members: I support Hawaii's energy policy to eliminate the use of imported fossil fuels for electricity and ground transportation. Please strengthen it by including a firm target date. Please pass SB1186 in its current form. Mahalo, Julie Quinn Kailua

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 6:02 PM
To: TRE Testimony
Cc: annmarten@hawaii.rr.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Ann Marten	Individual	Support	No

Comments: Dear Chair Inouye, Vice Chair Dela Cruz and Committee members, I strongly support SB1186. We can no longer stick our heads in the sand and pretend that it is the '70's and everyone 16 and over should have their own car. Many will want cars though so they need to be clean. Our population, both temporary and permanent, keeps growing and we must protect Hawaii from the exhaust from cars and trucks, etc. Fossil fuels come here on a boat, and we cannot take the chance that boats will not want to or be able to come to Hawaii. Hawaii's energy policy already aims to eliminate the use of imported fossil fuels for electricity and ground transportation. Two years ago you enacted a deadline for 100% renewable energy in the electricity sector re-framed energy issues, fostered collaboration, and catalyzed progress in electricity regulation and planning. Now it is time to do the same for the transportation sector. Thank you, Ann Marten

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 5:56 PM
To: TRE Testimony
Cc: kittyc8571@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Catherine Courtney	Individual	Support	No

Comments: Dear Chair Inouye, Vice Chair Dela Cruz and Committee members, I strongly support and ask you to pass SB1186. We need to make Hawaii's energy policy comprehensive. Our policy already aims to eliminate the use of imported fossil fuels for electricity and ground transportation. Two years ago you enacted a deadline for 100% renewable energy in the electricity sector re-framed energy issues, fostered collaboration, and catalyzed progress in electricity regulation and planning. Now it is time to do the same for the transportation sector. Mahalo, Kitty Courtney Windward Oahu

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 4:13 PM
To: TRE Testimony
Cc: douglasperrine@yahoo.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Douglas Perrine	Individual	Support	No

Comments: Please pass this very important bill to clarify our path toward energy independence, clean air, and a stable climate, and to reduce the dangers of sea level rise, coastal flooding and erosion, coral bleaching, coral death, and multiple other negative effects we are already starting to experience due to upsetting the balance of atmospheric chemistry.

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

From: mailinglist@capitol.hawaii.gov
Sent: Tuesday, February 7, 2017 3:38 PM
To: TRE Testimony
Cc: mendezj@hawaii.edu
Subject: *Submitted testimony for SB1186 on Feb 10, 2017 13:15PM*

SB1186

Submitted on: 2/7/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	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

From: mailinglist@capitol.hawaii.gov
Sent: Wednesday, February 8, 2017 3:36 PM
To: TRE Testimony
Cc: rangood4@hotmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/8/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Randy Erickson	Individual	Support	No

Comments: Aloha Chair Inouye and Committee Members, Using local, renewable energy in Hawaii's transportation sector will clean our air, slow climate change, save money on imported fossil fuel, stimulate our economy, and make our energy supply more secure. We need to set a firm date so that decision makers will take it into account when making investment decisions. Having a photo voltaic system attached to our home and a vehicle that charges off a normal 115 volt home outlet is a simple process and keeps on giving free energy and a feeling of independence. A plan like this should be implemented to include all of Hawaii's transportation needs. Please support SB1186. Mahalo, Randy Erickson

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

From: mailinglist@capitol.hawaii.gov
Sent: Thursday, February 9, 2017 10:19 AM
To: TRE Testimony
Cc: bigredvt@gmail.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/9/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Travis Counsell	Individual	Support	No

Comments: Clean energy is the only way to a sustainable future. Without government incentive/mandates, I am concerned that change will occur at the speed necessary. Please support this bill and others that encourage a more rapid adoption of sustainable measures to ensure the future is green for our keiki. Mahalo.

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

Lauren Reichelt

- Committee: Senate Committee on Transportation & Energy
- Hearing date: February 10, 1:15 PM
- Bill Number: Senate Bill 1186

Aloha Senate Committee on Transportation & Energy,

I am a graduate student in HPU's Global Leadership and Sustainable Development Program and I am writing in support of Senate Bill 1186, which would establish the elimination of all imported fossil fuels for ground transportation by 2045.

The passing of this bill will be the catalyst for necessary intermediate policy and business decisions to create a more sustainable transportation system for our state. If we don't set aggressive targets, we will continue with business-as-usual and never create the just and sustainable transportation system that we all deserve. The 100% clean energy bill that was passed in 2015 has created a new vigor for moving our electricity sector away from fossil fuels. It is my hope that this bill will provide the same incentive and enthusiasm behind moving the transportation sector in the same direction. Additionally, the millions of dollars we would save on fossil fuel imports could be used to support electric vehicle infrastructure or create safer bicycle lanes in Honolulu, among a myriad of other things.

I hope you take this testimony into consideration when considering SB1186.

Mahalo,
Lauren Reichelt

From: mailinglist@capitol.hawaii.gov
Sent: Thursday, February 9, 2017 12:24 PM
To: TRE Testimony
Cc: sarah@cleverev.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/9/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Sarah McCann	Individual	Support	No

Comments: Aloha, I support this bill. It is the appropriate next step towards energy independence for Hawaii. Thank you.

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

From: mailinglist@capitol.hawaii.gov
Sent: Thursday, February 9, 2017 2:58 PM
To: TRE Testimony
Cc: ccampa1@msn.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/9/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Carl Campagna	Individual	Support	No

Comments: Thank you for the opportunity to offer my strong support for this measure. I would suggest adding Air and Marine Transportation to this measure. I spent the better part of 2016 working on the framework for a biofuels supply chain based in Hawaii. This work was performed for the US Navy via the Pacific Command (PACOM). During VERGE and RIMPAC forums held in 2016, stakeholders all agree that alternative and bio fuels are the future. In 2015 The State of Hawai'i spent \$5.7 billion on imported oil. Up to 70 percent of each barrel goes towards transportation fuels while 30 % goes towards electricity. The Hawai'i State Energy Office states that Hawai'i's most important economic enterprise is developing a clean energy economy. In an effort to address our energy security needs, the increasing electricity costs, volatile price shocks and potential supply shortages, the State Legislature enacted the Hawai'i's Clean Energy Initiative in 2009. This Initiative aimed to supply 70 percent of electricity needs using clean sources by 2030; in 2016, this has been increased to 100 percent by 2045. Tax incentives were created to support energy security and sustainability. All of this to address 30% of each barrel. What about the other 70%? Displacing imported oil with a proven renewable source of locally grown, converted and distributed fuel would significantly improve Hawaii's energy security, sustainability, and economy. In addition, a vibrant biofuels sector would support the local farmers grow more food as it would help provide a baseline revenue. This legislation is not just about renewable fuel, they are about jobs and cost of living.

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

Aloha Chairperson Inouye,

My name is Lilly and am a recent college graduate working over in Kalihi. I work almost 60 hours a week trying to take advantage of every opportunity that I have been given while trying to give the same opportunities to my little sister. I spend almost \$200 on gas every month. That \$200 could pay for a month of groceries, my sister's school supplies for a whole year, one shot at the GRE, the list goes on. However, I believe that SB 1186 would give people like me and my sister the options to alternative forms of transportation that are just not practical for us now.

Driving around the island for work, I spot people in their \$80,000 Teslas, homes with powered by solar panels and I can't help but feel inadequate. I think that I will never be able to afford the luxury of living by my conscience. Why does clean energy have to be for those that can literally afford to be environmentally conscious?

My mother and I came to the U.S. 22 years ago because it was the land of opportunity. I want to work hard because I believe I owe it to my mother, myself, and my sister. I want my sister to focus less on making a living and just be able to live. I'm writing you today because if by 2045 I still can't afford to do the right thing for the place I have come to call home, I would have failed to fight for a future that my sister deserves. I think it is too often that we continue to procrastinate on issues of pollution and climate change. By implementing SB 1186 I believe that I, and everyone, that is just trying to give their families a life better than they had will be able to protect their futures.

Thank you for giving me the opportunity to submit testimony.

Mahalo,

Lilly Iijima

Rachel Schutz
1504 Uluhao St.
Kailua, HI 96734

Feb. 9th, 2017

Aloha TRE Committee Members,

My name is Rachel Schutz and I am writing in support of Senate Bill 1186 which establishes the objective of eliminating all imported fossil fuels for ground transportation by 2045.

I live in Kailua but work in Honolulu, so spend a decent chunk of time and money commuting back and forth. This means that the price of gas affects my bottom line. Importing our gas naturally inflates the price, meaning that Hawai'i has some of the highest gas prices in the country. By switching to 100% renewable sources, we could, over time, reduce the price of my daily commute while improving our environment simultaneously.

Last year my husband and I made the switch over to solar power and are proud to be contributing to our state's commitment to 100% renewables by 2045. However, when it came to purchasing a new car last year, we didn't feel that we could easily go electric because the state's infrastructure for charging stations was not comprehensive enough.

This bill would renew our dedication to renewable energy and fill in the gaps that our 2015 bill left open when it pledged to achieve 100% renewable energy by 2045. I urge you to support the bill to protect our 'aina and our bottom lines.

Mahalo for your time.

Rachel Schutz

SB1186

Imported Fossil Fuels; Elimination; Clean Energy Initiative Program

February 10, 2017, 1:15 P.M.

RELATING TO ENERGY

Aloha members of the TRE committee. My name is Maxim Poudrier-Tudan, I am a student at the University of Hawaii at Manoa, and I am testifying in support of SB1186.

As a millennial who is inheriting the environmental problems of my predecessors I believe it is necessary to insure a plan to combat such problems as the carbon emissions that are hastily increasing the planets temperature by destroying its ozone layer. Such a bill would drastically decrease pollutants in the atmosphere, and make this world a cleaner, and safer place for my generation to raise a family. I am very concerned that if such legislation is not passed, as a twenty-year-old, I will witness a world unlivable in my lifetime. 2016 was the hottest year on record; if we do not take steps to combat this issue soon, I fear it may be too late.

If Hawaii passes this bill and decides for a future based on renewable energy, it would be a leader by example on what the rest of the nation, and the world could do. This bill has the potential of pushing Hawaii to its goal of becoming an economy based entirely on renewable energy sources by 2045. Goals such as this have the ability to save the future of this planet.

From: mailinglist@capitol.hawaii.gov
Sent: Friday, February 10, 2017 9:30 AM
To: TRE Testimony
Cc: bbreis@me.com
Subject: Submitted testimony for SB1186 on Feb 10, 2017 13:15PM

SB1186

Submitted on: 2/10/2017

Testimony for TRE on Feb 10, 2017 13:15PM in Conference Room 225

Submitted By	Organization	Testifier Position	Present at Hearing
Brijit Reis	Individual	Support	No

Comments: Commuting by electric vehicle is already cheaper and cleaner than commuting by gas car. Establishing a 100 percent renewable ground transportation directive will speed up the deployment of electric vehicle charging and other infrastructure that will enable more people to switch to cheaper, clean ground transportation and reduce the cost of living in Hawaii.

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