







#### SENATE COMMITTEE ON TRANSPORTATION AND ENERGY

February 9, 2018, 1:35 P.M. Room 225 (Testimony is 4 pages long)

#### **TESTIMONY IN STRONG SUPPORT OF SB2955**

Aloha Transportation Chair Inouye, Vice Chair Espero, and members of the Committee:

Blue Planet Foundation strongly supports Senate Bill (SB) 2955, which requires that an increasing percentage of rental cars used in Hawaii be zero-emission vehicles (ZEVs). The rental car industry operates the state's largest vehicle fleets, and the frequent turnover of the vehicles (estimated to be about 13 months) means far more ZEVs entering the secondary market, allowing many more Hawaii residents to experience the benefits of ZEVs and help Hawaii reach its clean energy goals faster.

Blue Planet Foundation is a local, mission-driven nonprofit committed to clearing the path for 100% clean energy in Hawaii and believes that zero-emissions vehicles, like battery electric vehicles (EVs) and hydrogen fuel cell vehicles, will play a pivotal role in helping to eliminate fossil fuel use for both the ground transportation and the electricity sector. ZEVs are better for the environment, can lower household transportation costs, and can help Hawaii's electric utilities achieve 100% renewable electricity while lowering household electric bills.

The volume and model types of battery electric vehicles coming onto the market are expected to dramatically increase in the next five to seven years due to falling costs and EV-supportive policies from nations around the world, particularly those of China, the world's largest vehicle market.

The longer driving ranges, lower costs, and larger selection of models will make it possible for many of Hawaii's residents to lower their carbon footprints and take advantage of the economic benefits that EVs offer. However, the availability and accessibility of charging facilities will likely become a significant barrier in coming years, particularly for those living in apartments and condominiums. Furthermore, only a small percentage of the state's population has the financial resources to purchase new cars and so it could take a number of years for the influx of quality, affordable EVs to trickle down to the secondary market and become available to most people in the state.

Senate Bill 2955 aims to tackle this problem. Rental cars represent the largest vehicle fleets in Hawaii. Policies that expedite the scaling of ZEVs into rental car fleets will not only decrease the carbon footprint of the visitor industry, but due to the high frequency of fleet turnover, will translate into a huge influx of ZEVs onto the secondary market, making them affordable for far

more Hawaii residents. Finally, the development of public charging facilities necessary to enable a high penetration of battery EVs in the rental market would be more than adequate to meet the charging needs of the state's population – serving as the primary charging for those living in multi-family properties and as back up charging for the majority who are able to charge their vehicles at home.

#### **Environmental and Cost Benefits**

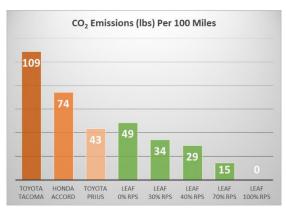
Electric vehicles produce less carbon than conventional vehicles, even when the electricity used to power them comes from fossil fuels. And with the State's 100% renewable portfolio standard, EVs will be carbon free by 2045.

In addition to the environmental benefits, EVs also present a number of economic benefits to Hawaii residents. Due to lower fuel and maintenance costs, EVs tend to be significantly less expensive to operate than conventional vehicles.

#### **Falling Prices and More Models**

Battery costs have fallen precipitously over the past several years so that in many cases, the total cost of ownership for EVs is lower than for conventional vehicles.

Experts expect battery prices to continue to fall and as automakers increase the number of models and volume of EVs in the next few years, the upfront cost of EVs is expected to reach upfront cost parity with conventional vehicles by 2025.1



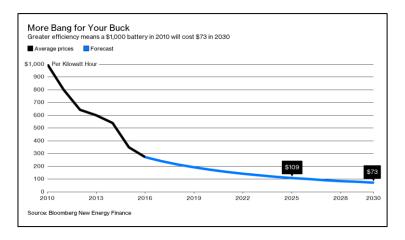


Assumes \$3.00 per gallon gasoline and HECO's Residential Interim Time of Use Rates and charging during mid-day off peak period (\$0.128/kWh)

<sup>&</sup>lt;sup>1</sup> Bloomberg New Energy Finance. https://about.bnef.com/blog/electric-cars-reach-price-parity-2025/

In part due to falling costs and increasing consumer demand, and in part due to government policies supporting EVs, nearly all of the world's leading automakers have announced aggressive strategies and investments in electric vehicles during the past year.

Perhaps the biggest single factor contributing to this dramatic strategic shift towards electric is the



fact that the world's largest auto market, China, has announced that it is working on a policy that would ban internal combustion engine vehicles outright as soon as 2030.<sup>2</sup>

Major Automaker Commitments to EVs

Group	Brands	EV Plans/Commitments
Toyota	Toyota, Lexus, Daihatsu, Isuzu	10 all electric models by early 2020s. Investing \$13.3B on R&D for EVs and batteries by 2030.
Volkswagen	VW, Audi, Bentley, Bugatti, Lamborghini, Porsche	To spend up to \$84B to bring 300 EV models to market by 2030, hybrid or electric version of every model car they offer by 2030.  80 new electric vehicle models by 2025.  \$40B from 2017-2022 (five years) to develop battery powered vehicles, autonomous-driving features, and ride-hailing systems
Hyundai	Hyundai, Kia	Eight EVs by 2022, dedicated EV platform.
General Motors	Buick, Cadillac, Chevy, GMC	Two new electric crossovers by mid 2019, 20 new electric models by end of 2022, 1 million units by 2026  GM "believes the future is all-electric"
Ford	Ford, Lincoln	\$11B investment, 40 electrified vehicles (16 full BEVs) by 2022.
Nissan	Nissan, Infinity	Partnering with Nissan to launch 12 ZEVs by 2022.
Honda	Honda, Acura	Two-thirds of all vehicles electrified by 2030.
Renault	Renault	Partnering with Nissan to launch 12 ZEVs by 2022.
Groupe PSA	Peugeot, Citroen, Opel	To offer an all-electric vehicle by 2019, four by 2021, and 3 new plug-in hybrids To offer 40 EV models by 2025, and plans to sell vehicles in the US within 10 years
Suzuki	Suzuki	Partnering with Toyota to produce small electric car for India by 2020.
SAIC	MG, Roewe	To invest 20 billion yuan in new energy vehicles, release more than 30 new models, and work to meet a sales target of 600,000 units by 2020.
Daimler	Mercedes-Benz, Smart	Electric versions of all models by 2022, Smart fully electric.
BMW	BMW, Rolls-Royce, Mini	To offer 25 electrified vehicles in its lineup by 2025, 12 of those fully electric—to have useable range of up to 435 miles.

#### **Rental Car Market**

While there are no publicly available figures on the total number of rental cars on Hawaii's roadways, some have estimated the number to be around 40,000 – which would make rental cars by far the largest vehicle fleets in the state.

<sup>&</sup>lt;sup>2</sup> The Economist. "China moves towards banning the internal combustion engine" <a href="https://www.economist.com/news/business/21728980-its-government-developing-plan-phase-out-vehicles-powered-fossil-fuels-china-moves">https://www.economist.com/news/business/21728980-its-government-developing-plan-phase-out-vehicles-powered-fossil-fuels-china-moves</a>

Additionally, due to proprietary nature of the rental car business there is no publicly available data on the average turnover rate for rental car fleets in Hawaii, some national estimates put the average turnover time at around 13 months.<sup>3</sup>

By any estimates, however, incorporating meaningful ratios of ZEVs into rental car fleets would translate into thousands more ZEVs entering the secondary vehicle market each year. This would mean that many more of Hawaii's residents could afford to buy a ZEV, reducing their carbon footprints and lowering their transportation costs.

#### Conclusion

Zero-emission vehicles are better for the environment and the economy, and can help Hawaii's electric utilities achieve 100% renewable electricity. The rental car industry operates the state's largest vehicle fleets and the frequent turnover of the vehicles would translate into far more ZEVs entering the secondary market, allowing many more Hawaii residents to participate in the benefits of ZEVs.

We believe that this bill will help to dramatically expedite the uptake of ZEVs in Hawaii and help to develop a public charging network necessary to accommodate those vehicles. We urge the committee to pass the bill as currently drafted.

Thank you for the opportunity to testify.

Blue Planet Foundation Senate Bill 2955 Page 4

<sup>&</sup>lt;sup>3</sup> The Motley Fool. "Surprising Facts about the Rental Car Industry" <a href="https://www.fool.com/investing/general/2012/07/13/surprising-facts-about-the-rental-car-industry.aspx">https://www.fool.com/investing/general/2012/07/13/surprising-facts-about-the-rental-car-industry.aspx</a>

Submitted on: 2/8/2018 10:17:09 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Joan Gannon	West Hawaii CHC	Support	No	

### Comments:

To:transportation and Energy

From: Joan Gannon Chair person Protect Marine Life Committee for Democratic Party Hawaii Island.

I support SB2955. Hearing date 2/9/18

I believe that car rental lessors with over 200 cars should incroperate only zero emission cars in their fleet.

Thank you Joan Gannon

Submitted on: 2/7/2018 10:52:05 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Ava Fedorov	Tell Tale Eye	Support	No

#### Comments:

The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.

Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.

It is also very economical. Electric vehicles have lower fuel and maintenance costs, and the market price of EVs continues to drop.



To: The Senate Committee on Transportation and Energy

From: Brodie Lockard, 350Hawaii.org, 808-262-1285

Date: Friday, 2/9/18

### In strong support of SB 2955

Dear Chair Inouye, Vice Chair Espero and Committee members,

I am the founder of the Hawaii chapter of 350.org, the largest international organization dedicated to fighting climate change. 350Hawaii.org strongly supports SB 2955, with an amendment.

The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of *real* zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.

As of January 2018 there were 6,748 passenger electric vehicles in the state, out of 1,062,518 total registered passenger vehicles, or an anemic 0.64 percent [1]. We should be doing everything we can to increase that percentage.

Zero-emission vehicles (ZEVs) provide many benefits to renters, lessors, and the State.

#### For lessors:

The price of ZEVs and replacement batteries continue to drop, while the number of available ZEV models continues to increase.

ZEVs have lower maintenance costs because there are usually fewer fluids to change and far fewer moving parts.

### For renters:

ZEVs have lower fuel costs, and many charging stations here are free. Even at today's low gas prices, charging an electric vehicle on the typical residential rate may save about 35 percent of fuel costs, compared to a similar-sized gasoline-powered sedan [2].

The charging time of ZEVs continues to drop, while their range and the number of charging stations in the State continues to climb, making hybrids' gasoline backup fuel less and less

necessary.

ZEVs get free parking in state and municipal lots and street spaces, plus access to highoccupancy lanes with only a driver on board.

#### And for the State:

Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are disqualified from meeting the targets. The transportation sector uses almost two-thirds of all petroleum consumed in Hawaii [3].

More ZEV rentals would increase the number of used ZEVs, making them more affordable to more Hawaii residents.

More ZEV rentals would show Hawaii's 8.9 million annual visitors that Hawaii is a leader in clean energy and sustainable transportation. Demonstrating their many benefits to visitors will also spread the word far beyond our state.

Please support SB 2955, amended, so the largest passenger vehicle fleets in Hawaii will contribute their share in reaching our clean energy goals.

Thank you for the opportunity to testify.

- [1] http://files.hawaii.gov/dbedt/economic/data\_reports/energy-trends/Energy\_Trend.pdf
- [2] https://www.hawaiianelectric.com/clean-energy-hawaii/electric-vehicles
- [3] https://www.eia.gov/state/analysis.php?sid=HI

Brodie Lockard 350Hawaii.org

<u>SB-2955</u> Submitted on: 2/8/2018 2:14:39 PM Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Joseph Kohn MD	We Are One, Inc www.WeAreOne.cc - WAO	Support	No

Submitted on: 2/8/2018 9:26:54 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dawn Morais Webster Ph.D.	Independent Issue Advocate	Support	No

#### Comments:

This bill, in enacted into law, will deepen our commitment to clean energy and send a clear message of leadership. This makes sense in the short and long term from both an environmental and financial perspective.

Electric vehicles have lower fuel and maintenance costs.

The price of EVs continues to drop.

Incorporating large numbers of zero-emission vehicles into rental motor vehicle fleets would significantly reduce carbon emissions.

It would increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more Hawaii residents.

It sends a clear message that we in Hawaii mean to lead in clean energy and sustainable transportation. It's good for us and will be welcomed by tourists. Please pass this bill.



Submitted on: 2/11/2018 12:30:50 PM Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Janet Graham	350.org	Support	No	

#### Comments:

This is a great way to limit the effects of emissions from tourism.

- \* Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.
- \* The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.
- \* Electric vehicles have lower fuel and maintenance costs.
- \* The price of EVs continues to drop.

The rental car companies need us more than them.

Thank you for considering this testimony.

Mahalo, Janet

<u>SB-2955</u> Submitted on: 2/8/2018 11:16:12 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
John NAYLOR	N/A	Support	No

<u>SB-2955</u> Submitted on: 2/8/2018 8:43:20 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Patricia Blair		Support	No	

Submitted on: 2/8/2018 9:31:37 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Kim Osborn Mullen		Support	No	

### Comments:

I strongly support this bill. We must do anything we can to reduce our dependence on fossil-fuel and mandating zero-emission cars for rental car companies, as they replace their fleet, is an important step. The cost of zero-emission cars continue to decrease which will make the transition to these cars financially possible. This bill will also help Hawaii to achieve the Hawaii Clean Energy Initiative.

Thank you,

Kim Osborn Mullen

Kailua, HI

Submitted on: 2/8/2018 7:28:02 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Jordan Moniuszko		Support	No

- \* Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.
- \* The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.
- \* Electric vehicles have lower fuel and maintenance costs.
- \* The price of EVs continues to drop.
- \*Incorporating large numbers of zero-emission vehicles into rental motor vehicle fleets would significantly reduce carbon emissions, increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more Hawaii residents, and demonstrate to all who visit the State that Hawaii is a leader in clean energy and sustainable transportation.

Submitted on: 2/8/2018 11:56:15 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Diliaur Tellei		Support	No	

### Comments:

I support this measure. Anywhere we can replace fuel vehicles with **true** electric, zeroemission vehicles, it should be done. Hawaii, as a tourism economy, could drastically cut carbon emissions by requiring car rental companies to use EVs. Additionally, cleaning up the types of vehicles on the roads is an important step in the general conversion to clean energy in the state.

Submitted on: 2/8/2018 12:04:43 AM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Janet Pappas		Support	No

Comments:

Dear Senators,

As an early adopter of an electric car (2011), I strongly support the proliferation of electric vehicles in Hawaii, especially in the car rental industry. Not only will the use of these cars reduce Hawaii's greenhouse gas emissions significantly, electric cars are now cheaper, nearly maintenance free (except for tire rotation and wiper replacement), and, as of 2018, they average 150 miles per charge. What's not to like?

Let's make Hawaii a leader in sustainable ground transportation. We are the only state that can truly make this happen within a few short years. Please support bill SB2955.

Thank you for your consideration.

Sincerely,

Jan Pappas

Aiea, Hawaii

<u>SB-2955</u> Submitted on: 2/7/2018 11:57:07 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
B.A. McClintock		Support	No

### Comments:

I fully support this bill and hope everyone else will. With the amount of visitors driving around every single day, what better way to reduce emissions? Finally a common sense bill. Please do everything you can to pass this bill.

Thank you for listening.

Submitted on: 2/7/2018 10:52:47 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Nanea Lo		Support	No	

Comments:

Hello,

My name is Nanea Lo I am a resident, student, daughter, and native Hawaiian. I am writing to ask that you pass this bill and be in SUPPORT of it.

The rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.

The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.

Electric vehicles have lower fuel and maintenance costs.

The price of EVs continues to drop.

According from the bill, "Incorporating large numbers of zero-emission vehicles into rental motor vehicle fleets would significantly reduce carbon emissions, increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more Hawaii residents, and demonstrate to all who visit the State that Hawaii is a leader in clean energy and sustainable transportation."

Again please support this bill.

Sincerely,

Nanea Lo

<u>SB-2955</u> Submitted on: 2/7/2018 2:33:07 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
pat gegen		Support	No	

<u>SB-2955</u> Submitted on: 2/7/2018 12:21:43 PM Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Margaret Maupin		Support	No



February 8, 2018 DATE:

TO: Senator Lorraine Inouve

Chair, Committee on Transportation and Energy

Submitted Via Capitol Website

RE: S.B. 2955 Relating to Zero-Emission Vehicles

Hearing Date: Friday, February 9, 2018 at 1:35 p.m.

**Conference Room: 225** 

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

We submit this testimony on behalf of Enterprise Holdings, which includes Enterprise Rent-A-Car, Alamo Rent-A-Car, National Car Rental, Enterprise CarShare and Enterprise RideShare (Van Pool).

Enterprise Holdings opposes S.B. 2955, which requires rental motor vehicle lessors with more than two hundred light duty passenger vehicles to expedite the incorporation of zero-emission vehicles into the lessor's fleet by 2025. The bill also requires all rental motor vehicle lessors to report a list of the make, model, license plate number, and fuel type of each rental motor vehicle in the lessor's fleet to the Director of the Department of Commerce and Consumer Affairs.

Enterprise has been a leader in sustainability in its industry and has been committed to making efforts to incorporate sustainable transportation into its fleet. When electric vehicles came onto the market, Enterprise launched a new program locally to incorporate electric vehicles into their fleet and put them out for rent. Enterprise has also invested in sustainable transportation by incorporating fuel efficient vehicles, as well as car sharing and ride sharing services.

The mandate in this bill requires that rental car companies incorporate electric, hybrid, or fuel cell vehicles in their fleet and meet a 10 percent requirement by 2021, 25 percent by 2023, and 50 percent by 2025. For every vehicle that does not meet this requirement, the companies would be penalized \$1,000 per month per vehicle.

Enterprise tried to encourage its customers to rent electric vehicles, but was unsuccessful. As a practical matter, the rental car industry is driven by market demand. When Enterprise incorporated several electric vehicles into their fleet, the vehicles were ultimately not selected by consumers to rent. Rental car companies cannot force customers to choose cars they do not want to rent. Due to their construction, electric vehicles tend to have small trunk space, so the cars are naturally less desirable for families who come to the islands on vacation.

This mandate is problematic for the industry and there will be implementation issues. Although Enterprise cannot know the exact reasons why its customers did not rent its electric vehicles, there are some logistical and practical reasons. First, the infrastructure needed to support electric vehicles is currently not adequate. Given that 85% of renters are tourists, if electric vehicles start to become a larger part of the fleet, it is unclear where tourists would charge their cars. Charging stations would need to be installed everywhere they are not now -- airport facilities (including the new consolidated facilities being planned), hotels, and other tourist destinations. None of these locations have enough charging stations to handle the influx of these vehicles on the road, nor do they have the capacity to install the significant numbers of charging stations in their parking lots that would be needed.

For the above reasons, we respectfully oppose this measure and ask that it be held in committee.

Thank you for the opportunity to submit testimony.

Submitted on: 2/8/2018 12:43:56 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
Dave Kisor		Support	No

### Comments:

More electric vehicles would be a good idea. Steam driven would be even better, as steam can be much more efficient, although the pollution industries don't want it because a single tank of water with recirculating steam wouldn't make them tons of money. It's all about money.

Submitted on: 2/8/2018 4:48:34 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
HENK ROGERS		Support	No

#### Comments:

SENATE COMMITTEE ON TRANSPORTATION AND ENERGY Feb. 9, 2018, 1:35 P.M. Room 225

#### **TESTIMONY IN STRONG SUPPORT OF SB2955**

Aloha Chair Inouye, Vice Chair Espero, and members of the Committee:

I'm writing in my personal capacity to offer strong support for SB 2955. This measure requires that an increasing percentage of rental cars used in Hawaii be zero-emission vehicles (ZEVs).

Rental cars represent the largest passenger vehicle fleets in the islands. Incorporating large numbers of zero-emission vehicles into rental car fleets would significantly reduce carbon emissions; would increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more residents; and would demonstrate to visitors that Hawaii is a leader in clean transportation solutions.

Electric vehicles have a far smaller carbon footprint than comparable gasoline-powered vehicles. They transform stored energy into kinetic energy more efficiently than gas cars, they don't idle when stopped at a light, and they are able to capture braking energy that is otherwise wasted in gas cars. What's more, EVs can be charged with renewable energy, as I do at my home in Honolulu and ranch in North Kona. Even if they are plugged in to the utility's grid, the energy that they use gets "cleaner" each year, as the utilities achieve the renewable targets as required by law.

It's wise for the legislature to focus on transitioning Hawaii's rental car fleets to EVs. These vehicles are typically driven further than other passenger cars in Hawaii, so they provide the best opportunity for fuel reductions. These vehicles also turn over quickly and are sold to locally at the end of their rental car lives. Passing SB 2955 will increase the number of lower-cost EVs available for residents and businesses.

Finally, offering EV rental cars is exactly the type of message that Hawaii wants to send to visitors. Tourists come to Hawaii expecting a clean environment and seeking new experiences. Hawaii is also increasingly being viewed as the "clean energy destination."

This is the positive type of branding that we want to continue for the state, and increasing the number of EVs in the rental fleet does just that. Tourists will go home with yet another new experience to share about their visit to the islands.

Electric vehicles are the future for Hawaii and rental car fleets are the most logical place to accelerate progress on EV adoption statewide.

I urge the committee to pass SB 2955 for our clean transportation--and clean visitor industry--future.

Mahalo for the opportunity to testify.

Aloha,

Henk B. Rogers

Submitted on: 2/8/2018 6:49:00 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
tlaloc tokuda	n/a	Support	No	ı

#### Comments:

Aloha Committee,

I belong to 350 HI who's goal is to have a carbon free world and to keep all fossil fuels in the ground. I support SB 2955 for the following reasons:

- \* Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.
- \* The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.
- \* Electric vehicles have lower fuel and maintenance costs.
- \* The price of EVs continues to drop.

Mahalo for your consideration

<u>SB-2955</u> Submitted on: 2/8/2018 8:01:08 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing	
Samuel John		Support	No	

Submitted on: 2/8/2018 9:37:01 PM

Testimony for TRE on 2/9/2018 1:35:00 PM

Submitted By	Organization	Testifier Position	Present at Hearing
tia pearson	self	Support	No

- \* Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.
- \* The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.
- \* Electric vehicles have lower fuel and maintenance costs.
- \* The price of EVs continues to drop.
- \* [This is straight from the bill:] Incorporating large numbers of zero-emission vehicles into rental motor vehicle fleets would significantly reduce carbon emissions, increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more Hawaii residents, and demonstrate to all who visit the State that Hawaii is a leader in clean energy and sustainable transportation.

## Senate Committee on Transportation and Energy Rep., Lorraine R. Inouye, Chair Rep., Will Espero, Vice Chair

Liezl Lacambacal MSW Candidate Myron B. Thompson School of Social Work University of Hawaii Conference Room 225 Friday, February 9, 2018

In support: SB2955

Relating to Zero-Emission Vehicles

Aloha, my name is Liezl Lacambacal, I am a third year Master's student from the University of Hawaii Myron B. Thompson School of Social Work. I am testifying in support of SB2955.

Not only do rentals represent the largest passenger vehicle fleets in Hawaii, they are probably driven much farther than the average local car on an average day as tourists explore our islands. This bill should reduce Hawaii's greenhouse gas emissions quite significantly, and more so if hybrids are not allowed to meet the targets.

The definition of "zero-emission vehicle" should not include plug-in hybrid electric vehicles. The legislature has the opportunity—and the power—to mandate very significant use of real zero-emission vehicles with this bill. Don't water it down by allowing sort-of-clean vehicles. Rental car companies will have to buy many new cars to comply with SB 2955; they should buy fully electric or hydrogen ones, not ones that will perpetuate our embarrassingly high percentage of imported fossil fuels.

Electric vehicles have lower fuel and maintenance costs. There is relatively little servicing and no expensive exhaust systems, starter motors, fuel injection system and radiators. Replacement batteries will be eventually needed, but most car manufacturers warrant EV batteries for around 8 years. It is important to highlight that he price of electric vehicles also continue to drop.

I want to conclude with a significant point in the bill. Incorporating large numbers of zero-emission vehicles into rental motor vehicle fleets would significantly reduce carbon emissions, increase the number of zero-emission vehicles entering the secondary market, making them more affordable to more Hawaii residents, and demonstrate to all who visit the State that Hawaii is a leader in clean energy and sustainable transportation.

Mahalo for your time and understanding, Liezl Lacambacal liezl2@hawaii.edu (808) 384-2748