

HAWAII STATE ENERGY OFFICE

STATE OF HAWAII

235 South Beretania Street, 5TH Floor, Honolulu, HI 96813 | energy.hawaii.gov

DAVID Y. IGE
GOVERNOR

SCOTT J. GLENN
CHIEF ENERGY OFFICER

(808) 587-3807

Testimony of **SCOTT J. GLENN, Chief Energy Officer**

before the
HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION
Tuesday, January 28, 2020
8:30 AM
State Capitol, Conference Room 325

In consideration of **HB 1855** **RELATING TO ENERGY.**

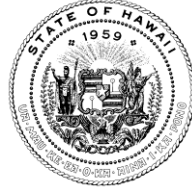
Chair Lowen, Vice Chair Wildberger and members of the Committee. The Hawaii State Energy Office appreciates the intent and offers comments on HB 1855 which requires electric utilities to offer smart imports to consumers beginning January 1, 2022; and directs the State's electric utilities to study smart imports, solar and energy storage solutions, and related solutions to excess electricity generation and propose a "smart imports" program in Hawaii to be implemented no later than January 1, 2022.

The ability to efficiently manage energy and energy infrastructure is essential for Hawaii to achieve its goal of sequestering more atmospheric carbon and greenhouse gases than emitted within the State as quickly as practicable, but no later than 2045. Hawaii will need to reduce the energy intensity in the production and supply of goods and services and efficiently utilize renewable energy to reduce the magnitude of renewable generation ultimately required to be sited and built.

Efficiently utilizing renewable energy resources will require matching energy demand with the energy generation from renewable resources. Hawaii's electric utilities currently have time-of-use (TOU) rates and the Public Utilities Commission has an open docket, 2019-0323, addressing the programmatic topic of advanced rate designs to be offered customers of the Hawaiian Electric Companies. A complimentary evolution to existing rate design and demand response programs are increasingly dynamic rates which can capture less predictable, shorter term periods when renewable energy is ultimately curtailed. TOU rates can send the everyday price signals for periods of low-cost energy encouraging consumers to shift or build load during those time periods. Pricing with steeper discounts provided through dynamic rates triggered by day-ahead notifications, all the way up to real-time pricing, can further increase the efficient utilization of energy infrastructure.

The Hawaii State Energy Office respectfully defers to the Public Utilities Commission on any considerations related to the current docket 2019-0323 or other proceedings and their ability to address the objectives of this bill.

Thank you for the opportunity to testify on this bill.



DAVID Y. IGE
GOVERNOR

JOSH GREEN
LT. GOVERNOR

**STATE OF HAWAII
OFFICE OF THE DIRECTOR
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS**

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P.O. BOX 541
HONOLULU, HAWAII 96809
Phone Number: 586-2850
Fax Number: 586-2856
cca.hawaii.gov

CATHERINE P. AWAKUNI COLÓN
DIRECTOR

JO ANN M. UCHIDA TAKEUCHI
DEPUTY DIRECTOR

Testimony of the Department of Commerce and Consumer Affairs

**Before the
House Committee on Energy & Environmental Protection
Tuesday, January 28, 2020
8:30 a.m.
State Capitol, Conference Room 325**

**On the following measure:
H.B. 1855, RELATING TO ENERGY**

Chair Lowen and Members of the Committee:

My name is Dean Nishina, and I am the Executive Director of the Department of Commerce and Consumer Affairs' (Department) Division of Consumer Advocacy. The Department appreciates the intent of and offers comments on this bill.

The purposes of this bill are to: (1) require electric utilities to offer smart imports to consumers beginning 1/1/2022 at rates approved by the Public Utilities Commission (Commission); and (2) require the Commission to direct the State's electric utilities to study, among other things, other states' smart imports programs to develop recommendations on how Hawaii can implement a smart imports program in Hawaii by 1/1/2022, with a report to the 2021 Legislature.

Solar energy plays a significant role in Hawaii's transition to clean energy, but due to the intermittent nature of photovoltaic energy, other technologies or solutions will be needed to maximize the potential of solar energy. This measure requires a smart

imports program to facilitate the expanded use of excess energy that may be available for purposes such as charging electric vehicles (EVs).

The Department has long recognized the need for Hawaii to modify existing rate structures to send better information and pricing signals to consumers, and it has been offering recommendations to pursue this effort. The Commission has opened Docket No. 2019-0323 to investigate distributed energy policies, which will include advanced rate design and market track issues that were suspended in Docket No. 2014-0192. In addressing these market track issues, it is anticipated that time-sensitive rates will encourage customers to take advantage of excess photovoltaic energy that may be available, and a modification of existing EV charging rates will encourage smart charging.

Since the Commission is already investigating advanced rate design and market track issues, the Department respectfully offers that this measure may be unnecessary and that, instead, it may be appropriate to consider a resolution that requires a report on the status of Docket No. 2019-0323, advanced rate design issues, and how new rate designs will address the objectives of smart imports programs that are being explored in other states.

Thank you for the opportunity to testify on this bill.

TESTIMONY OF
JAMES P. GRIFFIN, Ph.D.
CHAIR, PUBLIC UTILITIES COMMISSION
STATE OF HAWAII

TO THE
HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION

January 28, 2020
8:30 a.m.

Chair Lowen and Members of the Committee:

MEASURE: H.B. No. 1855

TITLE: RELATING TO ENERGY.

DESCRIPTION: Requires electric utilities to offer smart imports, or excess electricity, to consumers beginning 1/1/2022. Requires PUC to direct the State's electric utilities to study and recommend how to implement a smart imports program in Hawaii by 1/1/2022.

POSITION:

The Public Utilities Commission offers the following comments for consideration.

COMMENTS:

This measure would require electric utilities to offer excess generation to consumers at a just and reasonable rate, as approved by the Commission. The Commission supports the intent of this measure and notes that it is currently exploring advanced rate designs, including opportunities to design rates to encourage use of excess generation in its Distributed Energy Resources docket (Docket No. 2019-0323). This proceeding will investigate the ways to encourage customers to use excess generation through strategies such time-of-use rates, dynamic rates (including day-ahead or real-time dynamic rates), and specific rates for smart charging of electric vehicles.

Thank you for the opportunity to testify on this measure.



**Hawaiian
Electric**

**TESTIMONY BEFORE HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION**

LATE

H.B. 1855

Relating to Energy

January 28, 2020

8:30 a.m., Agenda Item #7

State Capitol, Conference Room 325

Kaiulani Shinsato
Director, Customer Energy Resources Programs
Hawaiian Electric

Chair Lowen, Vice-Chair Wildberger and Members of the Committee,

My name is Kaiulani Shinsato and I am testifying on behalf of Hawaiian Electric. Hawaiian Electric offers the following comments and concerns with H.B. 1855, Relating to Energy.

H.B. 1855 proposes to require electric utilities to offer smart imports, or sell excess electricity, to consumers beginning January 1, 2022. It requires the Public Utilities Commission (PUC) to direct the State's electric utilities to study and recommend how to implement a smart imports program in Hawai'i by January 1, 2022.

The bill as currently drafted is not clear as to the objectives it is trying to achieve and why it is necessary. In operating the electric grid, generation and consumption (i.e., supply and demand) must always be balanced in real-time. Thus, any excess generation that is being exported by customers who have rooftop solar is already being consumed by other customers.

If the bill is intended to promote advanced rate design that incentivizes customers to consume energy during the day when there is often excess solar

generation, Hawaiian Electric is already evaluating advanced rate designs with stakeholders in the PUC's Distributed Energy Resources (DER) proceeding (Docket No. 2019-0323).

In September 2019, Hawaiian Electric filed an Advanced Rate Design Strategy in the DER proceeding that provides a comprehensive strategy, including rates that are designed to encourage customers to export and use energy when it is most efficient to do so based on the needs of the electric system. Hawaiian Electric's Advanced Rate Design Strategy included discussion of proposals for, among other things, time-of-use rates and specific rates for smart charging of electric vehicles. These will be reviewed further before the PUC in the pending DER proceeding.

Moreover, Hawaiian Electric already has existing programs that are designed to incentivize customers to use more electricity during the day when there may be excess solar generation. Examples are Hawaiian Electric's recently developed Capacity or "Load Build" Grid Service and existing Time-of-Use Program.

Load Build is the utility's ability to reduce excess generation, or increase imports, by utilizing customer-sited assets. This could be done by turning on customer appliances such as water heaters and air conditioners, or charging batteries instead of exporting solar generation. Since this grid service offering is already in place, adding a "Smart Import" option may add confusion to the market and consumers.

Hawaiian Electric also currently offers a Time-of-Use Program to residential customers that encourages them to shift more usage during the day. Under this program, customers pay a lower rate during 9:00 am – 5:00 pm when there may be excess solar generation on the grid, and a higher rate between 5:00 pm – 10:00 pm, when there is peak demand for electricity.

Finally, H.B. 1855 requires the PUC to direct the State's electric utilities to study and recommend how to implement a smart imports program in Hawai'i by January 1, 2022. Hawaiian Electric recommends that any program regarding excess energy be assessed holistically and comprehensively along with other rate design proposals and programs before the PUC in the DER proceeding.

Thank you for this opportunity to testify.



183 Pinana St., Kailua, HI 96734 • 808-262-1285 • info@350Hawaii.org

To: The House Committee on Energy & Environmental Protection
From: Brodie Lockard, Founder, 350Hawaii.org
Date: Tuesday, January 28, 2020, 8:30 am

In strong support of HB 1855

LATE

Dear Chair Lowen, Vice Chair Wildberger, and members:

350Hawaii.org strongly supports HB 1855.

Consumers with rooftop PV produce enormous amounts of excess power, much of which goes to waste.

Why not use "smart imports"--selling excess power to charge electric vehicles (EVs) or produce hydrogen, at a special rate? Smart imports would efficiently use excess energy, reduce electricity rates, and promote EV adoption because of less expensive charging. They're good for the EV, solar, and battery storage industries.

HEI should help themselves, the Climate Crisis and consumers by selling excess electricity. Please support HB 1855.

Brodie Lockard
Founder, 350Hawaii.org

LATE

HB-1855

Submitted on: 1/27/2020 8:43:00 PM
Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Devyn	350 Hawaii	Support	No

Comments:

To: The House Committee on Energy & Environmental Protection
From: Devyn
Date: Tuesday, January 28, 2020, 8:30 am

In strong support of HB 1855

Dear Chair Lowen, Vice Chair Wildberger, and members:

I strongly support HB 1855.

Through their rooftop solar installations and Hawaii's overabundant sunlight, Hawaiian Electric Industries' customers produce enormous amounts of excess power nearly every day.

Much of this unneeded power goes to waste. Though batteries can store some, they are still expensive and not yet in all the many places they belong.

HEI could sell excess electricity to consumers for purposes such as hydrogen production, electric vehicle (EV) charging, or protected agriculture, at a rate suited to those uses. The sale of excess electricity from the grid to consumers is known as "smart imports."

Smart imports can reduce electricity rates and effectively use energy resources during periods of excess electricity generation. This can help EV adoption through low-cost charging. Smart imports can significantly boost the solar, battery storage, and EV industries.

HB 1855 would require HEI to offer excess electricity to consumers. It's a win-win-win for the Climate Crisis, consumers, and even HEI. Who could object to this idea?

Devyn

HB-1855

Submitted on: 1/27/2020 11:28:08 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Javier Mendez-Alvarez	350Hawaii.org	Support	No

Comments:

HB-1855

Submitted on: 1/26/2020 10:15:46 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Zoe Malia Ozoa Loos	Individual	Support	No

Comments:

Anything and everything needs to be done in order to take protect our aina, our keiki, our community during the climate crisis. We must do what it takes, we must lead the way as an island nation that will deal with more problems than the mainland. Problems that only an island nation will have to deal with. There should be no reason for me or anyone to convince legislators to enact laws that will fight to protect the land and do what needs to be done in order to help alleviate and reverse what is happening in our Aloha State.

Mahalo for all the work you have been doing and will be doing, I full-heartedly support all legislation that will work towards climate justice.

HB-1855

Submitted on: 1/27/2020 4:32:27 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

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

Comments:

Hello,

My name is Nanea Lo and I am a lifelong resident and kanaka maoli (Native Hawaiian) of this land. I am writing to say I fully support this bill and I'm asking for you all to do the same.

Me ke aloha 'Ä• ina,

Nanea Lo

HB-1855

Submitted on: 1/27/2020 9:03:08 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Peg Sullivan-Miller	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/27/2020 8:29:50 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Noel Morin	Individual	Support	No

Comments:

Aloha,

Please support HB1855. This has been tried and tested elsewhere and represents great opportunity for the state.

Thanks,

Noel Morin - Hilo

808 987 7428

HB-1855

Submitted on: 1/27/2020 7:23:23 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Lynn Aaberg	Individual	Support	No

Comments:

This is necessary to help us move towards our goal of renewable clean energy. It helps consumers and helps with the climate emergency. It may be that you get profit-driven entities to push back but that won't help in this time of climate collapse.

HB-1855

Submitted on: 1/26/2020 10:14:42 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Judith A Mick	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/26/2020 10:17:24 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
John Nix	Individual	Support	No

Comments:

A;oha all,

Please support HB1855 and lead us into the future away from toxic exposure and away from a dying planet. Support increasing good paying jobs and let us all benefit from doing the right thing,

Mahalo,

Dr. John and Debra Nix

Kihei

HB-1855

Submitted on: 1/26/2020 10:55:39 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Joy Silver	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/27/2020 12:35:51 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Louis Herman	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/27/2020 11:14:41 AM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
janice palma-glennie	Individual	Support	No

Comments:

please support this measure which will supports wise efforts to prevent Climate Crisis.

mahalo and sincerely,

janice palma-glennie

kailua-kona

HB-1855

Submitted on: 1/27/2020 1:19:47 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jesse Brown-Clay	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/27/2020 1:47:19 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Jonathan Boyne	Individual	Support	No

Comments:

I support HB1855.

HB-1855

Submitted on: 1/27/2020 2:57:23 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Charles K. Burrows	Individual	Support	No

Comments:

HB-1855

Submitted on: 1/27/2020 6:27:32 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Caroline Kunitake	Individual	Support	No

Comments:

Please support HB1855.

Mahalo,

Caroline Kunitake

LATE

HB-1855

Submitted on: 1/27/2020 7:11:35 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Matthew Geyer	Individual	Support	Yes

Comments:

These small incremental changes are important, but we need to do so much more to fight climate change in order to leave a decent world for our children to thrive in.

LATE

HB-1855

Submitted on: 1/27/2020 7:21:26 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Koohan Paik	Individual	Support	No

Comments:

LATE

HB-1855

Submitted on: 1/27/2020 8:41:26 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
John NAYLOR	Individual	Support	No

Comments:

LATE

HB-1855

Submitted on: 1/27/2020 8:39:28 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Bradford Baang	Individual	Support	No

Comments:

To: The House Committee on Energy & Environmental Protection

From: Brad Baang, Waianae, HI 96792

Date: Tuesday, January 28, 2020, 8:30 am

In strong support of HB 1855



Dear Chair Lowen, Vice Chair Wildberger, and members:

I strongly support HB 1855.

Through their rooftop solar installations and Hawaii's overabundant sunlight, Hawaiian Electric Industries' customers produce enormous amounts of excess power nearly every day.

Much of this unneeded power goes to waste. Though batteries can store some, they are still expensive and not yet in all the many places they belong.

HEI could sell excess electricity to consumers for purposes such as hydrogen production, electric vehicle (EV) charging, or protected agriculture, at a rate suited to those uses. The sale of excess electricity from the grid to consumers is known as "smart imports."

Smart imports can reduce electricity rates and effectively use energy resources during periods of excess electricity generation. This can help EV adoption through low-cost charging. Smart imports can significantly boost the solar, battery storage, and EV industries.

HB 1855 would require HEI to offer excess electricity to consumers. It's a win-win-win for the Climate Crisis, consumers, and even HEI. Who could object to this idea?

LATE

**Pearl Johnson
45-090 Namoku St, apt 1304
Kaneohe HI 96744**

HB-1855

Submitted on: 1/27/2020 9:08:48 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
John Grandinetti	Individual	Support	Yes

Comments:

LATE

Late

LATE



**Hawaiian
Electric**

**TESTIMONY BEFORE HOUSE COMMITTEE ON
ENERGY AND ENVIRONMENTAL PROTECTION**

LATE

H.B. 1855

Relating to Energy

January 28, 2020

8:30 a.m., Agenda Item #7

State Capitol, Conference Room 325

Kaiulani Shinsato
Director, Customer Energy Resources Programs
Hawaiian Electric

Chair Lowen, Vice-Chair Wildberger and Members of the Committee,

My name is Kaiulani Shinsato and I am testifying on behalf of Hawaiian Electric.

Hawaiian Electric offers the following comments and concerns with H.B. 1855, Relating to Energy.

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The bill as currently drafted is not clear as to the objectives it is trying to achieve and why it is necessary. In operating the electric grid, generation and consumption (i.e., supply and demand) must always be balanced in real-time. Thus, any excess generation that is being exported by customers who have rooftop solar is already being consumed by other customers.

If the bill is intended to promote advanced rate design that incentivizes customers to consume energy during the day when there is often excess solar

generation, Hawaiian Electric is already evaluating advanced rate designs with stakeholders in the PUC's Distributed Energy Resources (DER) proceeding (Docket No. 2019-0323).

In September 2019, Hawaiian Electric filed an Advanced Rate Design Strategy in the DER proceeding that provides a comprehensive strategy, including rates that are designed to encourage customers to export and use energy when it is most efficient to do so based on the needs of the electric system. Hawaiian Electric's Advanced Rate Design Strategy included discussion of proposals for, among other things, time-of-use rates and specific rates for smart charging of electric vehicles. These will be reviewed further before the PUC in the pending DER proceeding.

Moreover, Hawaiian Electric already has existing programs that are designed to incentivize customers to use more electricity during the day when there may be excess solar generation. Examples are Hawaiian Electric's recently developed Capacity or "Load Build" Grid Service and existing Time-of-Use Program.

Load Build is the utility's ability to reduce excess generation, or increase imports, by utilizing customer-sited assets. This could be done by turning on customer appliances such as water heaters and air conditioners, or charging batteries instead of exporting solar generation. Since this grid service offering is already in place, adding a "Smart Import" option may add confusion to the market and consumers.

Hawaiian Electric also currently offers a Time-of-Use Program to residential customers that encourages them to shift more usage during the day. Under this program, customers pay a lower rate during 9:00 am – 5:00 pm when there may be excess solar generation on the grid, and a higher rate between 5:00 pm – 10:00 pm, when there is peak demand for electricity.

Finally, H.B. 1855 requires the PUC to direct the State's electric utilities to study and recommend how to implement a smart imports program in Hawai'i by January 1, 2022. Hawaiian Electric recommends that any program regarding excess energy be assessed holistically and comprehensively along with other rate design proposals and programs before the PUC in the DER proceeding.

Thank you for this opportunity to testify.

LATE

HB-1855

Submitted on: 1/28/2020 10:26:54 AM
Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
donald erway	Individual	Support	No

Comments:

The GEMS program was a great idea for offering accessible, affordable, cost-effective green infrastructure financing options to customers. The building energy efficiency revolving loan fund went far in helping low-income residents borrow from the State to make energy efficiency improvements to buildings. But they've had limits.

- * These programs suffered from inefficient bond financing.
- * Because it's expended annually, a revolving loan fund will improve these flaws.

LATE

LATE

HB-1855

Submitted on: 1/28/2020 11:37:15 AM
Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Barbara Hershey	Individual	Support	No

Comments:

LATE

LATE

HB-1855

Submitted on: 1/28/2020 4:10:15 PM
Testimony for EEP on 1/28/2020 8:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Phaethon Keeney	Individual	Support	No

Comments:

Aloha!

Strong SUPPORT for HB1855! Smart Imports are just smart, why waste energy? Not just for efficiency sake and costs but for all those suffering from endless war for oil and climate impacts, HB1855 is a step closer to a clean energy future.

Mahalo!

Phaethon Keeney

Honokaa Hawaii

LATE

HB-1855

Submitted on: 1/28/2020 6:15:52 PM

Testimony for EEP on 1/28/2020 8:30:00 AM

LATE

Submitted By	Organization	Testifier Position	Present at Hearing
Mark A. Koppel	Individual	Support	No

Comments:

YOU KNOW ALL THE REASONS.

LATE