



NEIL ABERCROMBIE
GOVERNOR

SHAN S. TSUTSUI
LT. GOVERNOR

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

335 MERCHANT STREET, ROOM 310
P.O. Box 541
HONOLULU, HAWAII 96809
Phone Number: 586-2850
Fax Number: 586-2856
www.hawaii.gov/dcca

KEALI`I S. LOPEZ
DIRECTOR

JO ANN UCHIDA TAKEUCHI
DEPUTY DIRECTOR

TO THE HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

THE TWENTY-SEVENTH LEGISLATURE
REGULAR SESSION OF 2014

FEBRUARY 10, 2014
2:45 P.M.

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR, DIVISION OF
CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER
AFFAIRS, TO THE HONORABLE ANGUS L. K. MCKELVEY, CHAIR,
AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. 1878 - RELATING TO INTERCONNECTION FEES

DESCRIPTION:

This measure proposes to require the Public Utilities Commission (Commission) to create an interconnection fee schedule for solar energy generating facilities that provides reduced fees for facilities that have a battery back-up system.

POSITION:

The Division of Consumer Advocacy supports the intent of this bill and offers the following comments.

COMMENTS:

The exponential growth in the photovoltaic (PV) distributed generation (DG) market, or more commonly referred to as rooftop PV, in the past few years has raised various issues, including technical and economic concerns. Battery back-up systems to these rooftop PV systems have been touted as a possible solution for some of the technical issues. The Consumer Advocate understands that there are ongoing studies and analyses to determine the effect that battery back-up systems has on some of the safety and reliability issues that have been raised with respect to the proliferation of rooftop PV.

The Consumer Advocate supports the concept of encouraging open and transparent access to the electric grid by eligible customers. The idea of developing a schedule of interconnection fees may deserve additional consideration, but it is premature to require such actions at this time until a better understanding of electric grid limitations, as well as the technical and cost requirements of upgrading the grid to accommodate greater penetration of intermittent renewable generation, such as from rooftop PV. The Consumer Advocate understands and shares the frustration that has been expressed with respect to delays and costs that have impaired customers' ability to interconnect their DG systems. Vendors have been asserting that battery systems address those concerns. Even with a battery system, however, the ability and costs to interconnect a PV DG system will vary depending on factors, such as the circuit penetration level, the size of the PV DG system, and the capacity of the battery back-up system, to name a few factors; all affect the potential costs that might be incurred.

Prior to the establishment of a schedule of interconnection fees, including reduced fees for battery back-up systems, the legislature should await the intended investigation into the grid and how the existing grid might be cost effectively upgraded. As part of that investigation, the Commission can seek input from interested stakeholders including technical and economic input from system operators, PV and battery system manufacturers. With that information, the Commission's ability to establish interconnection fees for PV DG and other systems, including battery systems, will be well supported and just, reasonable, and fair rates can be established.

Thank you for this opportunity to testify.



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

NEIL ABERCROMBIE
GOVERNOR

RICHARD C. LIM
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
Richard C. Lim
Director
Department of Business, Economic Development, and Tourism
before the
HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE

Monday, February 10, 2014
2:45 p.m.

State Capitol, Conference Room 325

in consideration of

HB 1878

RELATING TO INTERCONNECTION FEES.

Chair McKelvey, Vice Chair Kawakami, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) supports the intent of HB 1878, which would require the Public Utilities Commission (PUC) to create an interconnection fee schedule for solar energy generating facilities and provide reduced fees if a solar energy generating facility includes a battery back-up system.

While DBEDT supports efforts to clarify and reduce interconnection fees, and it agrees in principal with supporting the deployment of energy storage systems that would verifiably improve grid reliability and increase renewable penetration, it defers to the PUC on the regulatory aspects of this bill. Further, DBEDT expresses its concern on measures that might usurp the PUC's authority to regulate Hawaii's electric utilities and set rates.

Thank you for the opportunity to offer these comments.

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON
CONSUMER PROTECTION AND COMMERCE**

H.B. No. 1878

Relating to Electric Utilities

Monday, February 10, 2014

2:45 pm

State Capitol, Conference Room325

Peter C. Young
Pricing Director, Pricing Department
Hawaiian Electric Company, Inc.

Chair McKelvey, Vice Chair Kawakami, and Members of the Committee:

My name is Peter C. Young and I represent Hawaiian Electric and its subsidiary utilities Maui Electric and Hawaii Electric Light.

We support the intent of HB No. 1878 to have the Public Utilities Commission review the interconnection charges associated with customer-owned distributed generation, including battery back-up systems, such that fees that would be required are clearer for such customers. However, it will be difficult to establish a precise fee schedule, and it is likely that the result could be limited to descriptions of the type of fees that would be assessed.

Actual costs of interconnection are highly dependent on the location, type, and size of a customer's generation system and individual circuit. As an analogy, a home builder could say all two bedroom houses cost X and all three bedroom houses cost Y and all four bedroom houses Z. In reality, there are smaller and larger houses in each class and some have larger lots and others smaller lots, and some may have standard features and others may have upgraded features. As a result, the cost of a house is not just based on the number of rooms, but rather is priced based on the location, size and cost of the finishing (appliances and special features). In other words, the specific attributes contribute to the cost. Similar to the cost of interconnecting a customer-owned distributed generation to the electric grid, a number of factors, such as the size of the installation, the complexity of the installation and other specific attributes, contribute to the cost, which would determine the charge of the interconnection.

To have a schedule up front of the exact amount that a customer-generator will be charged to connect no matter where they are on the grid, or without regard to

the attributes of the system, means that the difference between the actual costs and the estimate used to develop the fees would need to be “shared” among all other customers.

Under the PUC’s “cost causation” principle, the customer with the distributed generation should bear the cost that is required to interconnect such system to the grid. This principle assures fairness for all customers. The cost causation principle should be followed for interconnection fees rather than having set fees. To do otherwise would result in either some customers overpaying and others underpaying the cost of the interconnection, or would transfer costs to customers without a customer sited generated system.

We agree that distributed generation is an important and integral piece of our energy portfolio. The issue of interconnection fees would be best considered as part of the PUC review of the value of customer generation as part of the broad review of energy resource mix, with the intent to maximize benefits and minimize costs to all customers, not just those that have customer-owned generation.

Again, we support the intent of HB 1878; however, the development of a schedule of interconnection fees should first be discussed in the broader context of the value of customer generation on the entire electric grid.

Thank you for this opportunity to testify.



Hawaii Solar Energy Association
Serving Hawaii Since 1977

Before the House Committee on Consumer Protection & Commerce
Monday, February 10, 2014
HB 1878: RELATING TO INTERCONNECTION FEES

Aloha Chair McKelvey, Vice-Chair Kawakami, and members of the House Committee on Consumer Protection & Commerce,

On behalf of the Hawaii Solar Energy Association (HSEA), I would like to testify in support for HB 1878, requires the PUC to create an interconnection fee schedule for solar energy generating facilities, and that provides reduced fees for facilities that have a battery back-up system. HSEA is a non-profit trade organization that has been advocating for solar energy since 1977, with an emphasis on residential distributed generation and commercial for both solar hot water (SHW) and photovoltaics (PV). We currently represent 79 companies, which employ thousands of local employees working in the solar industry. With 37 years of advocacy behind us, HSEA's goal is to work for a sustainable energy future for all of Hawaii.

Hawaii customers who wish to install solar and invest in Hawaii's green energy infrastructure currently face financial uncertainty as they are required to pay the prorated costs of upgrades. On Maui, for instance, customers are now told that they will pay from \$600 to \$1,600/kW, which means a cost of \$3,000 to \$8,000 for upgrades for the average sized system. In addition to the cost of the system, customers must wait for up to 18 months for the utility to determine the cost, and thus end up paying for up to 18 months of unanticipated electric bills, making the installation of solar financially out of reach for many. Customers on Oahu, who up until September 6th, 2013, did not pay for prorated upgrade costs if the system was under 10kW, are still waiting to find out how much the cost might be. They expect to hear sometime later this year, and customers on the Big Island face similar roadblocks. By providing a reasonable interconnection fee schedule, the customer will be given needed certainty with regards to overall costs.

In addition, this bill recognizes the potential service that battery backup could provide to the utility and all ratepayers in that a customer with a backup battery could use excess energy harvested during the day to off-set expensive peak load in the evening. Customer sited battery back-up may also provide key ancillary services, and reducing interconnection costs for these kind of systems will encourage investment.

Thank you for the opportunity to testify.

Leslie Cole-Brooks
Executive Director
Hawaii Solar Energy Association



HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE

February 10, 2014, 2:45 P.M.
(*Testimony is 1 page long*)

TESTIMONY IN OPPOSITION TO HB 1878

Aloha Chair McKelvey and Members of the Committee:

The Sierra Club of Hawai'i, with over 12,000 members and supporters, *opposes* HB 1878. This measure calls for interconnection fees for distributed generation, but a reduced fee for generating systems that include batteries.

The relative cost or benefit of distributed generation is not an easy issue, and one that has been subject to a tremendous national debate. Currently the utilities in Hawaii are starting to prevent customers from interconnecting to the grid, leading to the potential that more and more customers will exit the grid entirely. This creates a potential for a so-called "death spiral" for all utilities. Higher interconnection fees — without a reasonable basis — could expedite this process.

PV customers plainly should pay for any costs they may cause. But utilities have an incentive to trump up this numbers in a short-sighted effort to prevent customers from self-generating their own electricity. Our preference would be to make sure the discussion of interconnection fees is done in context of a rate case, which allows for a broader analysis of the utilities need for profits.

That being said, if this Committee is going to call for interconnection fees, respectfully this Committee should direct the Commission what to consider, such as the costs and benefits to:

- (a) the State of Hawaii;
- (b) Customers-generators who participate in net metering;
- (c) Customers of a utility who do not participate in net metering; and
- (d) Each utility which offers net metering.

In addition, we suspect this Committee would have to allocate additional funding to ensure the Commission has the resources to appropriately delve into this issue.

We hope you will defer this measure indefinitely. Thank you for the opportunity to testify.



LATE

TESTIMONY OF HERMINA MORITA
CHAIR, PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE
STATE OF HAWAII
TO THE
HOUSE COMMITTEE ON
CONSUMER PROTECTION & COMMERCE

FEBRUARY 10, 2014

2:45 p.m.

MEASURE: H.B. No. 1878

TITLE: Relating to Interconnection Fees

Chair McKelvey and Members of the Committee:

DESCRIPTION:

This measure adds a new section to Chapter 269, Hawaii Revised Statutes ("HRS"), which would require the Public Utilities Commission ("Commission") to establish a schedule of interconnection fees that may be charged by an electric utility to a customer for connecting a solar energy generating facility to the electrical grid. The schedule of interconnection fees would include a maximum interconnection fee and would provide for reduced interconnection fees for solar energy generating facilities that are equipped with a battery back-up system.

POSITION:

The Commission has strong concerns with this measure and would like to offer the following comments for the Committee's consideration.

COMMENTS:

The Commission notes that establishing an interconnection fee schedule via administrative rulemaking would be an extremely cumbersome process that is better addressed through a tariff structure. Therefore, the Commission finds this measure to be unnecessary.

Understanding the costs caused and value provided by eligible customer-generators, especially when the technology is rapidly evolving, is essential in determining an interconnection fee schedule. The rulemaking process is not able to address these quickly evolving challenges in a timely way.

Further, this measure favors specific technology types by incentivizing adoption through capped and, in the case of battery back-up systems, reduced interconnection fees, which indicates a presumption that battery back-up systems is a preferred alternative energy solution of the Legislature as opposed to other renewable resources or other alternative energy options. Given the finite capability and capacity of the grid to accommodate intermittent energy resources, the Commission asks the Legislature to be cognizant of the potential cost increases that may result as more and more intermittent renewable energy resources are interconnected, particularly with respect to solar PV systems regardless of system size or ownership.

This measure specifically mandates reduced interconnection fee caps for customers installing battery back-up systems. Battery back-up systems can be configured in various ways depending on the purpose and function of the system. Rather than specifically mandating reduced interconnection fees for solar energy generating facilities that are equipped with a battery back-up system, the Commission prefers a market approach offering compensation based on the value of services the battery back-up system can provide to the grid along with other technologies and operational practices to ensure the least cost for services that may be provided by other types of technologies.

Thank you for the opportunity to testify on this measure.