

**TESTIMONY BEFORE THE HOUSE COMMITTEE ON  
ENERGY & ENVIRONMENTAL PROTECTION**

**H.B. No. 1730**

**Relating to Energy Tariffs**

Thursday, February 9, 2016

8:00 am

State Capitol, Conference Room 325

Dennis Lee

Manager, Pricing Department  
Hawaiian Electric Company, Inc.

Chair Lee, Vice Chair Lowen, and Members of the Committee:

My name is Dennis Lee and I am testifying on behalf of Hawaiian Electric Company and its subsidiary utilities Maui Electric Company and Hawai'i Electric Light Company in **opposition** to H.B. 1730.

This bill requires that the electric utility provide a credit to eligible customer-generators for any net electricity produced during peak hours of usage if there is a time-of-use feature in its rate structure.

The proposed legislation is unnecessary since the customer-generators under the net energy metering (NEM) program are eligible to opt in to a time-of-use rate. Any customer-generator energy that exceeds usage at the customer premise during a month for a particular time period would receive credit at a rate applicable to that period. Under current HRS 269-102, NEM customers are eligible to use time-of-use rates and in cases where net energy is produced for a given rating period during a billing month, then credit is given to the customer at the time-of-use rate for the rating period. Presently, NEM customers may voluntarily sign up for existing time-of-use rates. For example, there are about 360 customers on Schedule TOU-EV who export during the mid-peak period and receive credit at the higher mid-peak rate.

NEM customers will also be eligible for any new time-of-use rate programs applicable to the customer's class (e.g., residential) subject to the Commission's approval of such rates.

Furthermore, the matters related to customer-generators are currently being addressed by the Public Utilities Commission (PUC) in the Distributed Energy Resources (DER) docket (Docket No. 2014-0192) – where the PUC is evaluating and taking action upon the various issues associated with rooftop solar and other distributed energy resources (DER). The technical, economic and policy issues being addressed by the PUC are complex and inextricably intertwined.

In Phase 1 of the DER docket, the PUC established broad reforms through a collaborative process that will support sustainable growth in the market for rooftop solar PV and other DER desired by Hawaii's residents and businesses. The reforms established by the Commission will: (1) promote rapid adoption of the next generation of solar PV and other distributed energy technologies, (2) encourage more competitive pricing of DER systems, (3) lower overall energy supply costs for all customers, and (4) help to manage each island grid's scarce capacity.

With respect to NEM, the PUC acknowledged that NEM has been an extraordinary success in Hawai'i, but also determined, after a comprehensive investigation, that a transition away from NEM is essential to ensure all customers benefit from continued growth in distributed energy, not just those who have the ability to install solar PV or other forms of DER. The Commission has approved new rooftop PV programs to replace NEM that will continue to allow customers to add rooftop solar but in a manner that is fair and sustainable.

In Phase 2 of the DER docket, the PUC will focus on further developing competitive markets for DER in Hawaii. As stated by the PUC, the PUC will closely monitor the progress of the state's electric utilities as they move towards 100% renewable energy and will take further action to ensure the state's electric utilities continue to reduce costs to customers while ensuring the safety and reliability of each island grid.

Accordingly, the Hawaiian Electric Companies oppose H.B. 1730 and request that this bill be held.

Thank you for this opportunity to testify.



**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

February 9, 2016, 8:00 A.M.

Room 325

(Testimony is 2 pages long)

**TESTIMONY IN SUPPORT OF HB 1730  
SUGGESTED CLARIFYING AMENDMENTS**

Aloha Chair Lee, Vice Chair Lowen, and Committee members,

Blue Planet Foundation supports HB 1730, which would apply a time-of-use pricing concept to distributed energy generation (such as rooftop solar). We suggest two clarifying amendments.

Time-of-use pricing for electricity is a system under which the price of electricity varies based on when that electricity is used. This is a smart way to match the real cost of energy with the actual price paid by energy users. At times of day when excess energy generation is available, the price can be set lower to incentivize residents and businesses to use energy at that time. At other times of day, when energy demand is high, the price can be increased to shift some of that energy demand to other times of day.

By pricing electricity in closer relation to its actual cost and value, time-of-use also creates a mechanism for innovative new energy solutions, such as energy storage, smart thermostats, and similar technologies that could help to match our energy supply and demand. This concept can thus make our electricity system fairer, more efficient, and more effective.

HB 1730 recognizes the power of this sensible policy solution by ensuring that some aspects of the time-of-use concept are applied to *both* energy use *and* energy generation. Presently, time-of-use electricity tariffs and proposals from our utilities apply time-of-use only to energy use. This is asymmetrical and inefficient. HB 1730 ensures that energy generated during times of peak usage would be appropriately credit. This will incentivize residents and businesses, if they utilize rooftop solar and export some energy to the grid, to find ways to export that energy when energy demand is highest.

We suggest two clarifications for the bill:

1. Presently, HB 1730 would amend H.R.S. § 269-102. This section is within the Part IV of Ch. 269, regarding net energy metering (“NEM”). The language and intent of HB 1730 is broader than NEM as it set forth in Part IV. And as the Committee is likely aware, the Public Utilities

Commission recently ended the prior version of the NEM program. Thus, it may be clearer if the language in HB 1730 is placed into another portion of Ch. 269. For example, H.R.S. § 269-16 covers the topic of utility ratemaking in general.

2. To clarify that the “peak usage” credit in HB 1730 applies to utility tariffs that may not always be described as “NEM” tariffs, we suggest the following revised language:

If any electric utility uses a time-of-use feature in any rate structure, then that rate structure shall include a customer credit for any net electricity exported to the grid by that customer, under an approved utility interconnection agreement, during peak hours of energy demand. This credit shall be calculated at the same rate as the rate for energy consumption during those hours under the applicable rate structure.

Thank you for the opportunity to testify.



**Hawaii Solar Energy Association**  
*Serving Hawaii Since 1977*

**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION  
IN REGARD TO HB 1730, RELATING TO ENERGY TARIFFS  
BEFORE THE  
HOUSE COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION  
ON  
TUESDAY FEBRUARY 9, 2016**

Chair Lee, Vice-Chair Lowen and members of the committee, my name is Hajime Alabanza, and I represent the Hawaii Solar Energy Association, Inc. (HSEA)

HSEA supports HB 1730 with comments. This bill amends §269-102 to include a credit to the eligible customer-generator for any net electricity produced during peak hours of usage.

This bill is a step in the right direction as it pertains to grid modernization and valuating ancillary services of renewable energy. It is important to provide a credit for excess energy generated by a customer-generator, especially during peak hours. This creates fair valuation of energy produced and fosters the use of renewable.

Furthermore, the same credit should be given to customers who have chosen or will choose to add energy storage to their individual systems. Energy storage systems provide benefits to the grid and should be incentivized with the same credit proposed in HB 1730. Part of grid modernization is the ability of customer-owned energy storage to export excess energy to the grid when requested by the utility in both peak and non-peak hours. This export should be fairly valued and credited to the generator.

Finally, language protecting current NEM customers from violating their own NEM agreements by modifying their solar systems with energy storage should be inserted. There would be little incentive to add energy storage to an existing system if that addition invalidated a preferable rate agreement.

Thank you for the opportunity to testify.



DAVID Y. IGE  
GOVERNOR

SHAN S. TSUTSUI  
LT. GOVERNOR

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**OFFICE OF THE DIRECTOR**  
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TO THE HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION

THE TWENTY-EIGHTH LEGISLATURE  
REGULAR SESSION OF 2016

TUESDAY, FEBRUARY 9, 2016  
8:00 A.M.

TESTIMONY OF JEFFREY T. ONO, EXECUTIVE DIRECTOR, DIVISION OF  
CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND CONSUMER  
AFFAIRS, TO THE HONORABLE CHRIS LEE, CHAIR,  
AND MEMBERS OF THE COMMITTEE

HOUSE BILL NO. HB 1730 - RELATING TO ENERGY TARIFFS

DESCRIPTION:

This measure proposes to require electric utilities that use a time-of-use feature in its rate structure to include a credit to the eligible customer-generator for any net electricity produced during peak hours of usage.

POSITION:

The Division of Consumer Advocacy ("Consumer Advocate") offers comments on this bill.

COMMENTS:

The Public Utilities Commission ("PUC") and dozens of stakeholders have been immersed in the PUC's Distributed Energy Resources ("DER") docket for months, and the relevant preceding dockets for years before that. Last October, the PUC issued a decision and order in Phase I of the DER docket addressing immediate issues involving time-of-use ("TOU") rates by ordering the utilities to propose a TOU tariff for consideration and review.

In Phase II of the DER docket, the proposed TOU tariff is playing a key role in helping the PUC determine the value of the energy that customer-generators produce for themselves and for the grid. High peak pricing under the proposed TOU tariff increases the implicit value of any energy a customer-generator can avoid buying from the grid, and it may persuade the PUC that the value of any energy exported to the grid by customer-generators during peak hours should be more valuable than at other times of day. The PUC's continuing investigatory proceedings in Phase II of the DER docket, reviewing the proposed TOU tariff and determining the value of exported energy, may make this bill unnecessary.

Thank you for this opportunity to testify.





**HOUSE COMMITTEE ON ENERGY & ENVIRONMENTAL PROTECTION**

February 8, 2016  
(Testimony is 3 pages long)

**TESTIMONY IN SUPPORT OF HB 1730 WITH A PROPOSED AMENDMENT**

Chair Lee and Members of the Committee:

The Alliance for Solar Choice (TASC) appreciates the opportunity to support HB 1730, relating to energy tariffs.

TASC advocates for maintaining successful distributed solar energy policies and markets throughout the United States. Collectively, TASC members serve a significant portion of solar customers in Hawaii.

In a white paper, entitled *Customer-Based Solutions for the Hawaii Electric System*, TASC and other members of the solar industry observed:

Historically, utility customers both in Hawaii and nationally have had the right to use as much or as little energy as they want, provided that the activities of the customer do not compromise the safety and reliability of the utility grid. Reshaping the services that electric utilities provide to accommodate changes in consumers' needs, behaviors, and preferences is an essential concept that has guided the evolution of the regulatory compact since the beginning of the industry.

*Id.* at 5. Here, the concept of connecting net energy meeting — which gives fair credit to rooftop solar customers who provide power to their neighbors — with time of use rates encourages customers to provide power when the grid needs it the most. It also continues to support the adoption of distributed rooftop solar, a critical step towards meeting Hawaii's broader clean energy goals and empowering customer choice. Finally, it helps reduce rates overall for all ratepayers.

To the end, TASC observed in its white paper:

TOU tariffs encourage consumers to adjust their electric consumption based on price signals. TOU rates abide by cost-causation principles by providing higher prices during peak hours in order to reflect the higher marginal costs during those times. TOU pricing provides customers with signals that more accurately reflect how system capacity costs are incurred. Higher prices create an incentive for customers to shift load and improve energy efficiency in their homes or facilities. The more closely a customer's bill is calibrated to the customer's actual usage of electricity, the more control the customer ultimately has over his/her total monthly bill — and the greater motivation the customer will have to modify electricity consumption. Thus, TOU rates reduce both coincident and non-coincident peak demand, while encouraging conservation and energy efficiency.

**In addition, TOU rates assist with renewables integration by signaling to customers when it is optimal to consume power from, prevent exports to, or**

**place power onto the grid. Ideally, cost-based TOU rates should allocate capacity-related costs to the on-peak period, because it is these hours of highest demand which drive the utility to incur capacity-related costs.** TOU rates also should be based on accurate data on the higher marginal costs to produce energy when demand is high and less efficient generating capacity is operated to meet demand. TOU rates designed in this way create powerful cost signals to shift usage out of the on-peak period, or to use storage or west-facing PV system orientations to shift PV production into the on-peak period when it is most valuable to the system. **Moreover, because such a rate design is cost-based, it does not result in cost shifts between customers who choose to shift their demand or to invest in DERs and those who do not.**

*Id.* (footnotes omitted; emphases added). We believe this rationale was true when it was first stated, and remains true today. Net energy metering, combined with time of use, is the model for how to integrate high levels of renewable energy penetration and to encourage continuing grid participation.

To illustrate this point, the California Public Utilities Commission recently spent over two years examining distributed energy resources, including rooftop solar, and concluded that mandatory time of use in association with net energy metering was the best approach going forward.<sup>1</sup> This is a smart approach, and one that Hawaii should follow.

To this end, TASC suggests the following amendment is necessary to effectuate the intent of this bill, that is, to allow customers to take advantage of a time-of-use rate with net energy metering.

#### **Proposed Amendment:**

**§269-104 Additional customer-generators.** Notwithstanding section 269-102, an electric utility is ~~not~~ obligated to provide net energy metering to additional customer-generators in its service area with a time of use rate, except when the public utilities commission, by rule or order, finds there are safety and reliability concerns with further interconnection. ~~when the combined total peak generating capacity of all eligible customer-generators served by all the electric utilities in that service area furnishing net energy metering to eligible customer-generators equals .5 per cent of the system peak demand of those electric utilities; provided that the public utilities commission may increase, by rule or order, the allowable percentage of the electric utility's~~

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<sup>1</sup> DECISION ADOPTING SUCCESSOR TO NET ENERGY METERING TARIFF, February 5, 2016, at 91, available at <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M158/K181/158181678.PDF> (“In order to maximize the value of the TOU rates in improving customers' responsiveness to demands on the grid, the incentives for NEM successor tariff customers should be aligned with grid conditions, which is especially important since these customers will be making a one-time decision on the orientation of their solar PV systems.107 Requiring all NEM successor tariff customers to be on a TOU rate, whether on their default TOU rate, or another available TOU rate, will accomplish this alignment efficiently and in a way that is easy for the customer to understand.”).

~~system peak demand produced from eligible customer-generators in the electric utility's service area, whereupon the electric utility will be obligated to provide net energy metering to additional eligible customer-generators in that service area up to the increased percentage amount.~~

Mahalo for considering our comments.

**From:** mailinglist@capitol.hawaii.gov  
**Sent:** Monday, February 08, 2016 3:50 PM  
**To:** EEPtestimony  
**Cc:** dylanarm@hawaii.edu  
**Subject:** \*Submitted testimony for HB1730 on Feb 9, 2016 08:00AM\*



**HB1730**

Submitted on: 2/8/2016

Testimony for EEP on Feb 9, 2016 08:00AM in Conference Room 325

<b>Submitted By</b>	<b>Organization</b>	<b>Testifier Position</b>	<b>Present at Hearing</b>
Dylan Armstrong	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.

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House Bill 1730 – Relating to Energy Tariffs  
Testimony of Hermina Morita



I oppose this measure for the following reasons.

The Hawaii Public Utilities Commission (PUC) is in the midst of Phase 2 of its distributed energy resources investigation (Docket No. 2014-0192). This investigation is about how to evolve and integrate Hawaii's electric system with new services and products to serve all of Hawaii affordably and reliably with the most cost-effective and cleanest resources to be a model for the rest of the nation.

Given dynamics of advancing technology, the technical and economic implications of time of use rates and its rate design should not be in statute. The authority of the PUC in dealing with these types of issues through appropriate tariffs should not be undermined.

Thank you for allowing me to share my views.

Hermina Morita  
P.O. Box 791  
Hanalei, HI 96714



SIERRA CLUB OF HAWAI'I  
MĀLAMA I KA HONUA. *Cherish the Earth.*

House COMMITTEE ON ENERGY AND ENVIRONMENTAL PROTECTION

Tuesday February 9, 2016 8AM Room 325

In Support **HB1730** Relating to Energy Tariffs

**LATE**

Aloha Chairman Lee and members of the House EEP Committee,

On behalf of our 12,000 members and supporters, the Sierra Club of Hawai'i **strongly supports** HB1730 to require electric utilities that use a time-of-use feature in its rate structure to include a credit to the eligible customer-generator for any net electricity produced during peak hours of usage.

Following the Public Utilities Commission decision on net metering for solar customers, Time of Use (TOU) standards have become an essential element to ensuring Hawaii continues its transition to a 100% clean energy economy.

Thank you for the opportunity to testify on this measure.

Mahalo,

Martha Townsend  
Director