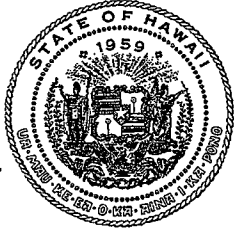


**SB 2985**



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

LINDA LINGLE  
GOVERNOR  
THEODORE E. LIU  
DIRECTOR  
MARK K. ANDERSON  
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](http://www.hawaii.gov/dbedt)

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

Statement of  
**THEODORE E. LIU**  
**Director**

Department of Business, Economic Development, and Tourism

before the

**SENATE COMMITTEE ON  
ENERGY & ENVIRONMENT**

Tuesday, February 5, 2008

3:00 p.m.

State Capitol, Conference Room

in consideration of

**SB2985**

**RELATING TO PAY AS YOU SAVE.**

Chair Menor, Vice Chair Hooser, and Members of the Committee.

The Department of Business, Economic Development and Tourism (DBEDT) supports SB2985, which is an Administration measure to expand the present Pay As You Save to residential electric utility customers and allow them to purchase a photovoltaic system with no upfront payments and to pay the cost of the system or systems over time on the customer's electricity bill.

This proposal amends the present Pay As You Save statute by including photovoltaics for residential use as part of a pilot project established by Act 240, SLH 2006. The present Pay as You Save addresses only residential solar water heating and only recently has been implemented by the various utilities. As with the residential solar water heating Pay as You Save program, the photovoltaics Pay as You Save program requirements will be subject to input by any interveners

in a docket established for this particular proposal and subject to review and oversight by the Public Utilities Commission.

As with solar water heating, the upfront cost for a photovoltaic system can be prohibitive for home owners. With Pay as You Save, these costs can be spread over time to make photovoltaic systems accessible to home owners. With the rising cost of electricity, photovoltaic systems, using Pay as You Save, will allow home owners to purchase and install photovoltaic systems to reduce their monthly utility bills by amortizing payments on a monthly basis. Photovoltaic systems use the sun to generate electricity for direct use by the home owner. Photovoltaic systems are an off-the-shelf and readily available technology that uses solar energy to reduce the State's dependence on fossil fuel.

Thank you for the opportunity to offer these comments.



LINDA LINGLE  
GOVERNOR  
JAMES R. AIONA, JR.  
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: (808) 586-2850  
Fax Number: (808) 586-2856  
[www.hawaii.gov/dcca](http://www.hawaii.gov/dcca)

LAWRENCE M. REIFURTH  
DIRECTOR  
RONALD BOYER  
DEPUTY DIRECTOR

TO THE SENATE COMMITTEE ON ENERGY AND ENVIRONMENT

THE TWENTY-FOURTH LEGISLATURE  
REGULAR SESSION OF 2008

Tuesday, February 5, 2008  
3:00 p.m.

TESTIMONY OF CATHERINE P. AWAKUNI, EXECUTIVE DIRECTOR,  
DIVISION OF CONSUMER ADVOCACY, DEPARTMENT OF COMMERCE AND  
CONSUMER AFFAIRS TO THE HONORABLE SENATOR MENOR, CHAIR  
AND MEMBERS OF THE COMMITTEE

**SENATE BILL NO. 2985 – RELATING TO PHOTOVOLTAIC SYSTEMS FOR  
PAY AS YOU SAVE.**

**DESCRIPTION:**

This measure expands the "Pay As You Save" solar water heater program to photovoltaic systems that convert sunshine into electricity, allowing users to pay each month through their electricity bill.

**POSITION:**

The Division of Consumer Advocacy ("Consumer Advocate") supports this Administration measure, which authorizes the Hawaii Public Utilities Commission ("Commission") to implement a pilot "Solar Pay As You Save Program."

**COMMENTS:**

Hawaii has an abundance of renewable energy resources that can and should be used as alternatives to fossil fuels. As the measure accurately notes,

S.B. No. 2985  
Senate Committee on Energy and Environment  
Tuesday, February 5, 2008, 3:00 p.m.

the up-front cost of installing solar devices is a barrier preventing many Hawaii residents from purchasing and using solar water heating and photovoltaic systems.

Since the electric utilities' Solar Water Heating Pay As You Save tariffs were effective on June 30, 2007, we do not yet have a large amount of data evidencing the success and effects of the program. Nevertheless, based upon the information obtained while participating in the Solar Water Heating Pay As You Save docket relating to the opportunities for customers to acquire such solar water heating devices, we believe that the expansion of the program to include photovoltaic systems is worthy of exploration by the Commission.

Page 3 of the bill provides that the electric utilities are required to file tariffs to comply with the new section by the end of this year, for implementation by June 30, 2009. Given our experience with the Solar Water Heating Pay As You Save docket, we believe that this may not be an adequate amount of time for the utilities to successfully obtain financing and for the parties to complete their necessary review. We suggest amending the measure to provide implementation by December 31, 2009, with six months' notice of the proposed tariff, in compliance with section 269-12(b), HRS.

Thank you for this opportunity to testify.

**Testimony Before the Senate Committee  
On  
Energy & Environment**

**S.B. 2985 - RELATING TO PHOTOVOLTAIC SYSTEMS FOR PAY AS YOU SAVE**

**Tuesday, February 5, 2008  
3:00 PM, Conference Room 414**

**By: Alan Hee  
Energy Services Department  
Hawaiian Electric Company, Inc.**

Chair Menor, Vice Chair Hooser, and Members of the Committee:

My name is Alan Hee, and I represent Hawaiian Electric Company (HECO), Hawaii Electric Light Company (HELCO), and Maui Electric Company (MECO).

We believe that the development of renewable solar energy such as PV should be encouraged in the State since it can reduce the State's dependence on fossil fuels. However, we ask that the committee consider examining the current PAYS Program, which has been renamed the SolarSaver Pilot Program and is still in its first year of implementation, before considering any new proposals to add to the current PAYS Program.

The SolarSaver Program is a pilot program which is still in its infancy stage, having begun just a little over 6 months ago. Under the existing SolarSaver Pilot Program, customers are able to get a solar water heater installed with no up-front cost. A customer, whose application is approved, is able to get a solar water heating system installed by a licensed contractor. The system is paid for over time as part of their monthly electricity bill. These systems that are currently being installed under the SolarSaver Program are financed entirely by all residential customers.

The purpose of this SolarSaver Pilot Program is to test the three essential elements of the Pay-As-You-Go<sup>®</sup> concept:

1. Participants pay for the system over time through their monthly electricity bill without any upfront cost.
2. The system has to be cost effective. Benefits must exceed the cost; in other words, there must be a monthly positive cash flow and the loan period must be significantly less than the life of the water heater.
3. Repayment obligation follows the premise and not the customer.

So far, the program has seen moderate success. Through the middle of January, we have received 103 applications for solar water heating systems, approved 94 applications, and have installed 40 solar water heating systems. We have found that this particular program requires much more time due to administrative paperwork and processing since financing documents are involved and proper recordation through the Bureau of Conveyances is also required.

We would appreciate the opportunity to first focus on solar water heating to ensure that the existing pilot program is running smoothly and to work out any issues before considering any new proposals. We have not fully tested the pilot program with respect to transfers of ownership of a solar water heating unit between occupants, nor do we have a full picture of the total cost of administering the program given the short time the program has been in existence. As mentioned above the upfront cost for these system installations and the cost to administer

the program are financed entirely by residential ratepayers and we would like to insure that the program is as efficient as can be.

We would like to offer these comments for your consideration with respect to the inclusion of PV to the program.

- 1) PV systems are much more expensive relative to solar water heating systems. A typical solar water heating system for a family of four costs around \$5,000 whereas a typical residential PV installation of 2 kw costs around \$18,000.
- 2) PV systems will have a much longer loan repayment period under the program. The typical repayment period for a solar water heater is 12 years. The loan repayment period for a PV system would be nearly 29 years.
- 3) PV may not meet the cost-effective criteria of the program which requires the repayment period be significantly less than the service life of the system. The service life for a PV system is estimated at 25 to 30 years (as long as a 30 year mortgage).
- 4) The higher relative cost and the longer repayment period for PV will increase the financing responsibility on residential ratepayers and also increase their exposure to payment default risk.

Thank you for this opportunity to testify.

Dear Chair Menor and Vice Chair Hooser,

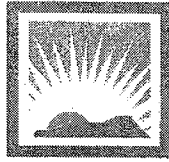
Thank you for the opportunity to testify on this bill.

I SUPPORT SB2985 RELATING TO PHOTOVOLTAIC SYSTEMS FOR PAY AS YOU SAVE, and think that the legislature, by supporting the implementation of programs like this, can help individuals make a difference in the use of renewable energy. If this bill happens, I will be one of the first to take advantage of it.

Aloha,

Kevin Kelly  
Kahuku





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

TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION  
IN REGARD TO S.B. 2985  
RELATING TO RENEWABLE ENERGY  
BEFORE THE  
SENATE COMMITTEE ON ENERGY & ENVIRONMENT  
ON  
TUESDAY, FEBRUARY 5, 2008

Chair Menor, Vice-Chair Hooser and members of the committee, my name is Richard Reed and I represent the Hawaii Solar Energy Assn. (HSEA). HSEA supports the passage of S.B. 2985.

Senate Bill 2957, SD 2, HD 2, CD 1, Part IV, Section 13, enacted by the 2006 Hawaii State Legislature (Act 240), authorized the Public Utilities Commission (PUC) to implement a pilot project to be called the "solar water heating pay as you save program". The legislature found that solar water heating systems provide important public interest benefits, but the initial cost of these systems remains an up-front barrier that excludes, "many Hawaii residents".

The legislature further found that the renewable energy technologies income tax credit and the electric utility rebates for solar water heating systems have not provided sufficient incentive to overcome the up-front cost issue, "Especially for rental housing and homes in need of retrofit".

The specific elements of the pay as you save solar water heating pilot project as defined by Act 240 are designed to overcome the potential purchase objections associated with first cost. The explicit goal of the pay as you save concept is to encourage solar system purchases by homebuyers that are not motivated by conventional financial incentives, i.e. tax credits and/or rebates, who do not qualify for conventional financing or have had a solar loan request previously rejected, or by renters that heretofore have had no financial motivation to purchase this energy saving device.

The implicit assumption, or hypothesis, in this legislation is that the potential market for retrofit solar water heating systems in Hawaii remains much larger than the actual number of systems purchased each year, and that the up-front capital cost is the primary stumbling block for those that have not yet purchased a system.

The record will reflect that HSEA argued before the legislature in 2006, that residential photovoltaic solar electric systems- which cost many times more than a solar water heating systems - deserved to be added to this pilot. It is clear that the initial capital cost of residential PV systems is the KEY obstacle to increased market penetration.