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Statement of
LUIS P. SALAVERIA
Director
Department of Business, Economic Development and Tourism
before the
HOUSE COMMITTEE ON FINANCE
Tuesday, February 28, 2017
11:00 a.m.
State Capitol, Conference Room 308

in consideration of
HB1543, HD2
RELATING TO RENEWABLE ENERGY.

Chair Luke, Vice Chair Cullen, and Members of the Committee.

The Department of Business, Economic Development and Tourism (DBEDT) **supports with amendments HB1543, HD2**, which requires DBEDT to establish an optional energy training course for state and county employees responsible for permitting, inspecting, licensing, and approving construction projects that contain renewable energy systems and related technology.

DBEDT is fundamentally not a curriculum development agency. As such, DBEDT is not equipped in its current budget with the appropriate human and financial resources to develop the ongoing curriculum required by this measure. For example, in order to implement the requirements of this measure, DBEDT would need ongoing (not just one time) funding and additional staff. However, recognizing the prevailing need to equip County personnel with appropriate training on the inspection and permitting of energy storage systems, DBEDT proposes the attached amendments that: (1) would allow for the establishment and deployment of storage battery systems training courses by the University of Hawai'i Community College System, (2) create a committee comprised of industry stakeholders such as representatives to support the development

and deployment of the energy storage systems, (3) appropriately fund (\$100,000 over two year period) University of Hawai'i Community College System to meet the requirements of this measure. DBEDT worked with the Pacific Center for Advanced Technology Training and Continuing Education and Lifelong Learning (PCATT) at Honolulu Community College West Oahu campus on the proposed amendments. It is our understanding that PCATT has experience working with industry to develop and deploy energy related curriculum. For the above reasons, we respectfully request that the Legislature adopt our proposed amendments.

Thank you for the opportunity to offer testimony on HB1543, HD2.

A BILL FOR AN ACT

RELATING TO ENERGY TRAINING.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

SECTION 1. The State's ambitious clean energy goals, along with advances in energy technology, have created incentives for the adoption of new technology, energy systems, and equipment, including solar panels and [most recently](#), energy storage.

Installation of these modern energy systems has been an economic driver of the economy, reduced the State's dependence on imported oil, and helped to protect the environment, but the increased construction has placed additional burdens on some county [and state](#) employees. Employees responsible for permitting, inspecting, licensing, and approving projects, including employees at county public works departments, employees at planning and permitting departments, and fire departments [fighters](#), must now remain constantly informed of new technology in the energy sector, [in particular energy storage systems which are relatively new to the electric energy market](#)

but are expected to greatly increase in adoption. However, the legislature finds that many of these employees are not provided with the proper training and must either research the standards themselves or pay for their own training. In addition, the lack of training can lead to unnecessary delays in the approval or implementation of a project.

The purpose of this Act is to create a program to provide training to the ~~state and~~ county employees responsible for permitting, inspecting, licensing, and approving energy storage systems. ~~and related technology.~~

SECTION 2. Chapter 196, Hawaii Revised Statutes, is amended by adding a new section to part I to be appropriately designated and to read as follows:

"§196- ~~Energy systems and~~ storage systems technology training. (a) Energy ~~systems and~~ technology storage systems training courses shall be established as needed to educate relevant officers and employees of the State and counties on the various standards and requirements for the inspection and permitting of renewable energy storage systems and related technology. The courses, including any materials necessary to implement the courses, may be developed, designed, prepared, and conducted by the University of Hawai'i Community College System department of business, economic development, and

tourism, or by a public or private entity contracted by the department University of Hawai'i Community College System.

(b) The energy storage systems and technology training courses shall include, but not be limited to, information on:

(1) New innovations in energy storage systems and technology, such as recent advancements in energy storage and the interaction of energy systems and technology with the electrical grid;

(2) The implementation of new and existing energy storage systems and technology in compliance with international, national, state, and county standards, including building and fire codes; and

(3) Any other relevant topic pertaining to the various standards and requirements for energy storage systems-renewable energy systems and related technology.

(c) The University of Hawai'i Community College System department of business, economic development, and tourism may:

(1) Administer the energy systems and technology storage systems training courses;

(2) Provide notifications or advertisements of the courses to relevant state and county employees, including employees at county public works departments, employees at planning and permitting departments, fire departments-fighters, and others

involved in the permitting, inspecting, licensing, and approving of construction projects energy storage systems; and

(3) Provide the courses for a fee to the participants, which may be offset to the extent permitted by the appropriated budget in section 3 of this Act.

(d) The ~~department of business, economic development, and tourism~~ University of Hawai'i Community College System may designate its staff to conduct the energy storage systems ~~and technology~~ training courses or contract with a public or private entity to conduct the courses."

(e) A committee shall be comprised of industry stakeholders such as representatives from the solar and energy storage systems industry both locally and nationally, and county representatives from each county who will work closely with the University of Hawai'i Community College System staff and subject-matter-experts to do the following:

(1) Provide input and guidance on identifying the training areas needed to provide to county employees;

(2) Provide input and guidance on identifying the related and required training equipment needed to be incorporated in to training content;

(3) Help with outreach and buy-in from county employees and constituents to get them to participate in training.

SECTION 3. There is appropriated out of the general revenues of the State of Hawaii the sum of \$50,000 per fiscal year, totaling \$100,000 or so much thereof as may be necessary for fiscal year 2017-2018 and the same sum or so much thereof as may be necessary for fiscal year 2018-2019 for energy storage systems and ~~technology training~~ as provided for in this Act.

The sums appropriated shall be expended by the University of Hawai'i Community College System ~~the department of business, economic development, and tourism~~ for the purposes of this Act.

SECTION 4. New statutory material is underscored.

SECTION 5. This Act shall take effect on July 1, 201750.

Report Title:

Energy Systems and Technology; Training; State Employees; County Employees; Appropriation

Description:

Requires the establishment of energy storage systems ~~and technology~~ training courses for ~~state and~~ county employees responsible for permitting, inspecting, licensing, and approving construction projects that contain energy storage systems ~~renewable energy systems and related~~ technology. Appropriates funds. (HB1543 HD2 PROPOSED AMENDMENTS)

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.



Before the House Committee on Finance
Tuesday, February 28, 2017, 11 a.m., Room 308
HB 1543 HD 2: Relating to Energy Training

Aloha Chair Luke, Vice Chair Cullen, and members of the Committee,

On behalf of the Distributed Energy Resources Council of Hawaii (“DER Council”), I would like to testify in strong support for HB 1543 HD 2 which authorizes DBEDT to establish an optional training course for state and county employees responsible for permitting, inspecting, licensing and approving construction projects that contain renewable energy systems and related technology, and appropriates an unspecified amount to establish the training course.

The DER Council is a nonprofit trade organization formed to assist with the development of distributed energy resources and smart grid technologies which will support an affordable, reliable, and sustainable energy supply for Hawaii.

In the last few years, the renewable energy industry has been undergoing a rapid technological evolution. Both the components of renewable energy installations and the configurations of the installations have continued to evolve, and inspectors and plan checkers need to be informed and up to date to do their jobs. They are expected to understand a very wide variety of system and component variables ranging from smart inverters, AC and DC configurations, various battery chemistries, fire safety and enforcement protocol, and the many battery management systems that ensure safe and efficient operation of systems that include battery energy storage, just to name a few.

Unfortunately, there is no formal or ongoing means in place by which inspectors and plan checkers who work for the state and county can learn about the ongoing changes in the renewable energy industry. This means that state and county employees have different levels of understanding about renewable energy installations, resulting at times in the inconsistent application of the rules and an inefficient process where plans and inspections can be greatly delayed if the installation has unfamiliar technology

The state and county employees who work to ensure that renewable energy installations are safe and properly designed and installed should be given the option of trainings in renewable energy so that they can get the information that they need. In addition, we believe that the state energy office under DBEDT is the best entity to facilitate these trainings. Right now, the permitting and inspection process is one of the main impediments to renewable energy projects getting installed and energized. Without the necessary training, Hawaii’s 100% RPS goal will be adversely compromised. We therefore urge this committee to support HB 1543 HD 2.

Thank you for the opportunity to testify
Leslie Cole-Brooks
Executive Director
Distributed Energy Resources Council of Hawaii



Hawaii Solar Energy Association

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**TESTIMONY OF THE HAWAII SOLAR ENERGY ASSOCIATION
IN REGARD TO HB 1543 HD 2, RELATING TO THE PUBLIC UTILITIES
COMMISSION
BEFORE THE
HOUSE COMMITTEE ON FINANCE
ON
THURSDAY, FEBRUARY 28TH, 2017**

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

HSEA **supports** HB 1543 HD2. This measure seeks to provide a program managed and conducted by DBEDT to educate employees responsible for the permitting and approving of energy systems and related technology.

Currently the state of Hawai'i is in the midst of an energy revolution. We are on the cutting edge of energy policy and technology and have one of the most ambitious and aggressive renewable energy goals ever codified into law. Additionally, the Hawaii Solar Energy Association and its members have collectively installed thousands of solar PV and solar hot water systems across all the major neighbor islands. We have proven ourselves more than capable of meeting the goals set forth in the Hawaii Revised statutes §269-92.

However, this aggressive energy policy also comes with a cost. Being on the cutting edge of the energy economy means that you are often sailing into uncharted waters. In these instances, the necessary services provided by the local municipalities that deal with the permitting, licensing, and approving of the types of projects that move the state forward on its renewable energy goals will most certainly need education and instruction on the various energy technologies that will be installed.

HB 1543 HD2 allows DBEDT to provide an essential service to these various agencies. This allows both permitting agencies and industries to absolve themselves from attempting to learn from each other on an informal and ad hoc basis. It also provides an official forum for these agencies and industries to collaborate moving forward.

However, given concerns raised by some state agencies **we have some suggestions that HSEA feels would improve this bill**. Rather than tasking DBEDT to complete and administer these programs, perhaps it would be best for the agency to be allowed to work with an educational institution. While DBEDT could oversee these programs, an educational institution would be better able to administer an education program.

We also suggest that DBEDT work collaboratively with a variety of state and local agencies as well as local industry in developing a non-partisan program. The HSEA has



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within its membership several well-qualified individuals who are more than willing to volunteer time and expertise to assisting these agencies with developing a successful program. In a program like this, no one agency, institution, or industry should be tasked with developing an entire curriculum. Instead, a collaborative stakeholder process would be preferred. The HSEA is one of the most experienced and longest standing solar industry groups in Hawaii and would be more than happy to assist DBEDT with development of a curriculum.

We strongly urge the committee to pass HB 1543 HD2.

Thank you for the opportunity to testify.

HB1543 HD2
Support with the exception of Section 5
Testimony Finance Committee 2/28/2017 hearing
February 26, 2017

I have been following the HB1543 since January upon notification by the author of the Bill. I provided comments at a conference on energy solutions last year and the House Reps in attendance took notice and supported what I had spoken about and I believe therefore she authored this legislation. This Bill will assist Hawaii's goal of attaining 100% renewable by 2045.

I am an independent consultant who assists clients in the construction industry who are working toward being code compliant in attaining the appropriate approvals to install energy systems that will help Hawaii achieve its goal. Those in government that oversee all code compliant installations need to be educated with up-to-date information. As many work for the County municipalities currently funding is very low and not a priority. This is a technical field of high and rapid changes and very difficult to understand its technicalities and these government agencies and individuals could use the help to be educated and keep up with the pace of new products.

I believe this help is needed immediately if we are to achieve our goal of being less dependent on fossil fuels for electricity. The Labor Committee revised this Bill to take effect on July 1, 2050 which will be far beyond the mandate to achieve 100% Renewable by 2045. I STRONGLY recommend the earlier language of being in effect **immediate upon approval** be restated.

It takes bold leadership to take a stand for the good of Hawaii and I urge this Legislation being ratified.

The State's department, DBEDT designated in this this Bill testified that there is a California group that is taking this bold leadership. The group is Sustainable Energy Action Committee and SEAC "*produces toolkits to aid in safe and streamlined energy installation processes. Our work provides a better understanding of sustainable energy requirements and improved practices and procedures to effectively and optimally support the transition to zero net energy communities.*"

This group took the initiative to assemble the stake holders and focus to evaluate steps to reach 100% Sustainability. The participants that make up this group are:

- utility companies
- National organization that help produce standards like Underwriters Laboratories (UL), Center for Sustainable Energy (CSE), International Association of Electrical Inspectors (IAEI), International Code Council-Solar Rating & Certification Corporation (ICC-SRCC)

- Municipalities with those who lead departments for permit plan review approval and inspection
- Private industry who develop the sustainable energy products and have the technical know-how

The cross section of participants is well-balanced and there is no corporate funding as the local PUC supported this initiative and the rate payers fund the administration cost. Hawaii has a GEMS program similarly funded by rate payers which is not being fully utilized.

Next week UL representatives will be here in Hawaii to educate and inform municipalities on:

- **A code official's guide to UL** This session provides an overview of UL and its product certification programs. It will provide you with a better understanding of the implications associated with codes that require products to be listed versus approved. The program includes an interactive Q&A on common questions code officials may hear during their normal work and inspections.
- **Determining code compliance using UL online tools and resources** An interactive class that focuses on how code officials can utilize online information to verify if products are suitable for use in compliance with locally enforced codes.
- **Energy storage systems, fire safety considerations** Energy storage systems are being installed in ever increasing numbers to address business and community energy needs. These include stationary storage battery systems, fuel cells, capacitor energy storage systems and combinations of renewable energy systems that provide load shedding and load sharing capabilities. This session will provide an overview of fire safety considerations associated with these systems and changes to fire and electrical codes that address hazards associated with new energy technologies.

UL is meeting with fire officials on their respective islands and has invited the county officials to participate.

If the State is serious to attain 100% Renewable Energy, we need this Bill to be ratified as a resource to help facilitate the achievement. The need for assistance is immediate, not after the goal deadline of 2045.

Mahalo,
Brian Yahata
1326 Akele Street
Kailua, Hawaii 96734

From: mailinglist@capitol.hawaii.gov
Sent: Sunday, February 26, 2017 8:54 PM
To: FINTestimony
Cc: louyounghawaii@gmail.com
Subject: *Submitted testimony for HB1543 on Feb 28, 2017 11:00AM*

HB1543

Submitted on: 2/26/2017

Testimony for FIN on Feb 28, 2017 11:00AM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Lou Young	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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From: mailinglist@capitol.hawaii.gov
Sent: Sunday, February 26, 2017 7:59 PM
To: FINTestimony
Cc: jeanyounghawaii@gmail.com
Subject: *Submitted testimony for HB1543 on Feb 28, 2017 11:00AM*

HB1543

Submitted on: 2/26/2017

Testimony for FIN on Feb 28, 2017 11:00AM in Conference Room 308

Submitted By	Organization	Testifier Position	Present at Hearing
Jean Young	Individual	Support	No

Comments:

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