



## **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  
SENATE COMMITTEE ON ECONOMIC DEVELOPMENT, TOURISM, AND  
TECHNOLOGY  
ON  
FRIDAY, MARCH 17<sup>TH</sup>, 2017**

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

HSEA **supports the intent of** 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.



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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 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  
Testimony in Support for hearing 3/17/2017  
Senate Committees:  
Economic Development, Tourism, and Technology  
Transportation and Energy

On June 8, 2015 Governor David Ige signed into law HB623, mandating Hawaii achieve 100% renewable by 2045. Last week the Pacific Business News reported:

- Hawaiian Electric Co. received nearly 26 percent of its energy from renewable resources in 2016, up from 23 percent in 2015, ...
- The Big Island ... with 54 percent of its power coming from renewables, up from 49 percent in 2015. Maui County also reached a new high of 37 percent, up from 35 percent. On Oahu, 19 percent of electricity used by customers came from renewable resources, up from 17 percent the year before.
- Last month, the Honolulu Department of Planning and Permitting issued 153 photovoltaic permits, a **drop of 66 percent from February 2016**, according to data collected
- Kauai Island Utility Cooperative, the only other utility in Hawaii, is achieving about 44 percent renewable energy.
- SolarCity built the system and selected Telsa Energy for the planned project, which is believed to be the first utility-scale system in the United States that will be able to provide electricity generated from solar energy on demand, even at night [and] On Wednesday morning, the two companies along with Kauai Island Utility Cooperative [unveiled] The 52-megawatt-hour Tesla Powerpack lithium-ion battery storage system [which] will provide up to 13 megawatts of power onto the grid. ... CEO of KIUC, said in a statement. "By using solar energy stored in the battery after the sun goes down, we will reduce our use of imported fuels and our greenhouse gas emissions significantly." ... KIUC has a 20-year power purchase agreement to purchase power from the project at **13.9 cents per kilowatt-hour**, which is less than the current cost of oil.

Panelist "experts" in the renewable industry believe that the first 25% should be easily achieved, with the next 50% (to 75%) will be challenging, and the remaining 25% will be very difficult if efforts are not made to assist the process. This bill, if supported and implemented by government, will be instrumental in achieving that 100% goal.

This bill accurately recognizes the need for batteries as one of the solutions for the State to reach 100% renewable energy due to the quickly advancing technology of these system as it states:

*"Employees responsible for permitting, inspecting, licensing, and approving projects, including employees at county public works departments, employees at planning and permitting departments, and firefighters, must now remain constantly informed of new technology in the energy sector. 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."*

Last week Underwriters Laboratories (UL) invited the municipality's Fire Departments to updates of regulation being considered for safety and code conformance. A courtesy invitation was also extended to Building and Electrical with this important information:

- **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.

The representatives from UL enlightened County attendees of the current regulations and upcoming revisions. Most attendees quickly realized the rapidly changing code environment and the need to be immediately apprised of industry updates. A UL rep was later taken to a renewable energy project that demonstrate the advances that Hawaii has already achieved. He wrote back and was pleasantly surprised and impressed.

I am also participating with a California group that has a two-year lead on a collaborative effort to achieve something similar. The stakeholders readily realize the need for this collaborative effort and has assembled a balanced team:

- utility companies
- National organizations that provide 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 department heads that lead on permit plan review approvals and inspections
- Private industry who develop the sustainable energy products and have the technical know-how

The California PUC also recognized this need and subsidizes this group through the rate-payers with no private industry funding. Hawaii passed SB1087 creating the GEMS Program (Green Energy Market Securitization) that is similarly financed by Hawaii's rate-payers.

Any support for this bill and all efforts to expedite achieving the goal of 100% Renewable Energy before 2045 is appreciated.

Mahalo,  
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