

SB 75 SD1

Measure Title: RELATING TO THE ENVIRONMENT.

Report Title: Energy; Behind-the-Meter Battery Recycling

Description: Enacts a new chapter to regulate behind-the-meter battery recycling under the department of health. (SD1)

Companion:

Package: None

Current Referral: CPH/EET, WAM/JDL

Introducer(s): ENGLISH



STATE OF HAWAII
DEPARTMENT OF HEALTH
P. O. Box 3378
Honolulu, HI 96801-3378
doh.testimony@doh.hawaii.gov

**Testimony COMMENTING on S.B. 75, S.D. 1
RELATING TO THE ENVIRONMENT**

SENATOR ROSALYN H. BAKER, CHAIR
SENATE COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH

SENATOR GLENN WAKAI, CHAIR
SENATE COMMITTEE ON ECONOMIC DEVELOPMENT, ENVIRONMENT, AND
TECHNOLOGY

Hearing Date: February 16, 2016
Time: 9:45 am

Room Number: 229

1 **Fiscal Implications:** Establishes a Behind-the-Meter Recycling Fund.

2 **Department Testimony:** Commenting on the Measure.

3 The Department appreciates the progressive and forward thinking of S.B. 75, S.D. 1,
4 which places the responsibility on manufacturers to register with the State on their Behind-the-
5 Meter Batteries and requires a recycling program to be implemented by the manufacturers. The
6 bill also establishes a recycling fund to administer the program.

7 The Department would prefer to establish dialogue with all parties concerned and obtain
8 statistics on the flow through of these batteries (numbers of incoming batteries, recycling and
9 disposal of batteries and the costs involved). There are current regulations already in place to
10 insure the proper management, handling and disposal of lead acid batteries, lithium ion batteries
11 and other rechargeable batteries.

12 Thank you for the opportunity to testify on this measure.

13

14



Before the Senate Committee on Commerce, Consumer Protection, and Health & Committee on
Economic Development, Environment, and Technology
Tuesday, February 16, 2016, 9:45 a.m., Room 229
SB 75 SD 1: Relating to the Environment

Aloha Chairs Baker and Wakai, Vice Chairs Kidani and Slom, and members of the Committees,

On behalf of the Distributed Energy Resources Council of Hawaii (“DER Council”), I would like to testify in opposition to SB 75 SD 1 with suggestions for amendments, which establishes a framework for energy storage recycling of batteries sold and disposed of in the State of Hawaii. The DER Council is a nonprofit trade organization formed to assist with the development of distributed energy resources and smart grid technologies to support an affordable, reliable, and sustainable energy supply for Hawaii.

The DER Council fully supports the intent of SB 75 SD 1 and wishes to work with other stakeholders and the Hawaii State Department of Health to create a recycling program that will protect Hawaii’s environment and recognize the complex nature of energy storage recycling. The DER Council sees energy storage as a key next step in the state’s progress towards its renewable goals and our pledge to eliminate Hawaii’s dependence upon imported fossil fuels. Although SB 75 SD 1 serves the purpose of starting the conversation regarding proper environmental stewardship for battery recycling, the DER Council has several concerns detailed below regarding implementation of the plan and we respectfully suggest an alternate plan.

Energy storage can often be repurposed for another use before it reaches its full “end of life”

SB 75 SD 1 has been modeled after the current rules in place for recycling of electronic waste in Hawaii, including televisions, computers, and so forth. Although this may be a good starting place, the DER Council wishes to note that recycling for energy storage is much more complicated than the average e-waste. Depending upon the purpose of the energy storage, the batteries used for energy storage can in many cases be repurposed for other uses once the lifetime value of the original purpose is met.

Many manufacturers already have storage recycling in place

Since batteries used for energy storage have value even once the original purpose is exhausted, many manufacturers and companies which purchase batteries to use in their products have recycling programs already in place to harvest the value of their spent products. For example, Stem, a company that provides smart grid solutions with predictive analytics and energy storage, includes as part of its customer service a commitment to retrieve the customer’s battery once it has reached end of life and repurpose, recycle, or dispose of at no expense to the customer.

In addition, a recycling program should also recognize the complexity of the industry, where most contractors and smart energy companies purchase batteries for use in their systems from companies outside of Hawaii. This raises the question of what entity should stand as ultimately responsible for recycling. Should it be the manufacturer who sold the storage outside of Hawaii?

Should it be the Contractor? Should it be the customer, who is likely the entity most in charge of disposal or repurposing?

These questions deserve further study. The DER Council contends that an effective recycling program will depend on several factors, and applying the state's e-waste statute to this complex problem without full consideration of the options would not produce the best results.

Recycling for lead acid batteries already exists

The DER Council also wishes to note that recycling for lead acid batteries already exists in Hawaii and customers who have energy systems with lead acid batteries can already utilize the existing program in place. This is true for all types of lead acid batteries, and we can see this program in action at both the recycling centers and local merchants. For instance, if a customer wishes to buy a new lead acid car battery, the new purchase will cost more if the customer doesn't bring in the old battery which needs replacing. The lead acid battery has value, and offsets the cost of the new battery.

The application of a \$2,500 enrollment fee and \$5,000 fee would add unnecessary administrative costs and increase costs for an emerging technology in Hawaii

The DER Council believes that the very high application fees and yearly dues do not serve the state, the local economy, or the environment and should be handled another way. Hawaii is currently undergoing a profound transformation from a fossil fuel driven economy to a renewable energy economy which will bring stability, reliability, and sustainability for all. We have already had great success with rooftop solar and other renewable energy, and have the highest per capita installs of rooftop solar in the country.

However, due to the unique load curve in Hawaii and various other factors concerning energy generation and use, it has become clear that storage will play a vital role in our continued progress towards our goal of 100% renewables by 2045. This next phase of renewable development stands to become the next big wave of renewable installations and clean energy jobs which will drive our progress to 100% RPS. With the exception of issues concerning permitting and interconnection requirements, the only thing standing in the way of our progress is cost. Storage adds on considerable expense to existing roof top solar systems and other types of installations, and customers who wish to invest will pay more. SB 75 SD 1 further increases the costs by adding on registration fees and yearly fees. These costs will ultimately be passed onto the customer and will likely slow the progress of green energy investment.

Ironically, by slowing down renewable development, the benefits of renewable energy such as cleaner air and slowing the impacts of climate change would be reduced, which contradicts the legislation's intent to promote environmental stewardship.

A recycling program should be flexible to reflect new technologies

SB 75 SD 1 also does not address which types of battery storage companies can and should recycle. For instance, the Aquion battery is essentially a salt-water battery and is very useful for applications that need a slow and steady source of energy. These types of batteries do not need a recycling program. In addition, storage technologies continue to evolve, and any recycling program should have enough flexibility to reflect the market's emerging technologies and corresponding environmental impacts. A trade group has formed to address these issues regarding storage recycling, and they are currently in the process of formalizing a recycling plan.

Energy storage has just begun and batteries now being installed will not reach end of life for many years.

Very few distributed energy systems have been installed with energy storage in Hawaii. The Public Utilities Commission just created the self-supply tariff last year, and self-supply systems will be the primary means for residential customers to install storage. So far, the utility has only approved a handful of self-supply systems. Commercial installations of energy storage number less than 100, and the installation of the majority of commercial energy storage has occurred in these last two years. In addition, battery storage with distributed energy has a lifetime on average of 10 years, depending upon battery type and use. Therefore, the DER Council wishes to note that the question of recycling for battery storage is not urgent, and the State will not need to recycle this type of device for years to come.

The DER Council recommends that stakeholders work together to create a plan that addresses these concerns

As stated above, the DER Council fully supports the intent of SB 75 SD 1 and wishes to underscore our commitment to environmental stewardship. However, due to the complexity of battery storage, the potential impact on this emerging market, and the fact that the State will not need to have a program in place for many years, the DER Council recommends that SB 75 SD 1 be deferred. Instead, the DER Council proposes that stakeholders convene an energy storage working group and recommend best next steps and program development by the opening of the 2017 legislative session.

Thank you for the opportunity to testify.

Best regards,
Leslie Cole-Brooks
Executive Director
The Distributed Energy Resources Council of Hawaii



P.O. Box 37158, Honolulu, Hawai`i 96837-0158
Phone: 927-0709 henry.lifeoftheland@gmail.com

COMMITTEE ON COMMERCE, CONSUMER PROTECTION, AND HEALTH
Senator Rosalyn H. Baker, Chair
Senator Michelle N. Kidani, Vice Chair

COMMITTEE ON ECONOMIC DEVELOPMENT, ENVIRONMENT, AND TECHNOLOGY
Senator Glenn Wakai, Chair
Senator Sam Slom, Vice Chair

DATE: Tuesday, February 16, 2016
TIME: 9:45am
PLACE: Conference Room 229

Re: SB 75, SD1 Relating to the Environment

CONCERNS

Aloha Chairs Baker and Wakai, Vice Chairs Kidani and Slom, and Members of the Committees

Life of the Land is Hawai`i's own energy, environmental and community action group advocating for the people and `aina for 46 years. Our mission is to preserve and protect the life of the land through sound energy and land use policies and to promote open government through research, education, advocacy and, when necessary, litigation.

Normally Life of the Land supports recycling. Electronic recycling is very important. But SB 75 SD1 overly focuses on a small sector of the market. The bill excludes customers who install the same battery but are not grid-connected, or who put the same battery in their car and hence there is no meter. The bill only focuses on batteries that generate electricity and not thermal output. The bill excludes energy storage other than batteries. The bill excludes utility-scale batteries. The title "Relating to the Environment" is broad enough to expand covered items.

Mahalo, Henry Curtis, Executive Director