

SB 2910

SD2 HD1

---

---

# A BILL FOR AN ACT

RELATING TO ELECTRIC GRID RESILIENCY.

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

1 PART I

2 SECTION 1. The legislature finds that achieving electric  
3 grid resiliency requires maximizing energy efficiency, strategic  
4 planning for electric grid infrastructure, and leadership from  
5 the public sector.

6 The legislature finds that green infrastructure financing  
7 was established in the public interest to make cost-effective  
8 green infrastructure equipment options accessible and affordable  
9 to Hawaii consumers.

10 The legislature further finds that Act 57, Session Laws of  
11 Hawaii 2017 (Act 57), appropriated \$46,400,000 out of the Hawaii  
12 green infrastructure special fund for fiscal year 2017-2018 for  
13 the purpose of financing the installation costs for energy-  
14 efficient lighting and other energy efficiency measures related  
15 to heat abatement at public schools. Act 57 also authorized the  
16 department of education, with the approval of the governor, to  
17 borrow \$46,400,000 for fiscal year 2017-2018 from the green



1 infrastructure loan program. Pursuant to Act 57, repayment of  
2 the loan, which is to be issued free of interest charges, will  
3 be from general revenue savings from reduced utility costs as a  
4 result of the implementation of energy-efficient lighting and  
5 other energy efficiency measures.

6 While the department of education's energy efficiency plan,  
7 utilizing Hawaii green infrastructure financing, initially  
8 included only light-emitting diode lighting retrofits, the  
9 legislature finds that this financing mechanism, coupled with  
10 innovative implementation strategies, will enable the department  
11 of education to implement deeper retrofits that include other  
12 energy efficiency measures.

13 The legislature notes that EnerNOC Utility Solutions  
14 Consulting prepared and presented the *State of Hawaii Energy*  
15 *Efficiency Potential Study: Project #1448* (Study) to the Hawaii  
16 public utilities commission on January 15, 2014. The Study  
17 categorized Hawaii's 2012 energy consumption into five sectors:  
18 residential (thirty-two per cent), military (eleven per cent),  
19 water and wastewater (four per cent), street lighting (0.5 per  
20 cent) and commercial (fifty-two per cent). According to the  
21 Study, the commercial sector, which includes government, is the



1 sector with the majority of the statewide energy efficiency  
2 savings potential.

3 The legislature also notes that in a 2015 report to the  
4 legislature on behalf of the department of business, economic  
5 development, and tourism, titled *Lead by Example: State of*  
6 *Hawaii Agencies' Energy Initiatives FY 2013-2014*, the department  
7 of education was found to be the second largest consumer of  
8 electricity amongst state departments, consuming over 135  
9 million kWh per year from fiscal year 2004-2005 through fiscal  
10 year 2013-2014 at an average cost of \$38,000,000 per year.  
11 However, there are a number of other state agencies and  
12 departments that would benefit from a similar financing  
13 arrangement. Reducing energy consumption in state buildings  
14 would significantly and positively contribute to the achievement  
15 of Hawaii's energy efficiency portfolio standard, while reducing  
16 and controlling costs for Hawaii's taxpayers.

17 The legislature additionally finds that although government  
18 agencies were not named as underserved by the Hawaii public  
19 utilities commission in the green energy market securitization  
20 program, the commission has acknowledged that the green energy  
21 market securitization program was not intended to be exclusively



1 dedicated to underserved customers. The legislature also notes  
2 that while state agencies constitute a significant component of  
3 energy consumption in Hawaii, investment in energy efficiency  
4 improvements by government agencies has been limited.  
5 Furthermore, government agencies can be classified with those  
6 ratepayers who are considered hard to reach with traditional  
7 market-competitive financing agreements, due to procurement  
8 limitations and the obligation to include contractual provisions  
9 that make the continuation of contracts contingent upon the  
10 allocation of funds. For these reasons, the use of the green  
11 energy market securitization program funds to provide low-cost  
12 financing to enable energy efficiency retrofits for state  
13 government agencies fills a gap not served by the capital  
14 market.

15 Accordingly, the purpose of this part is to provide all  
16 state agencies and departments the opportunity to obtain low-  
17 cost financing from the green energy market securitization  
18 program, at an interest rate of 3.50 per cent per annum, to  
19 reduce energy costs and consumption by installing energy  
20 efficiency measures. This part also creates a sub-fund under  
21 the umbrella of the green energy market securitization loan fund



1 and converts \$30,000,000 into a revolving line of credit for any  
2 state agency or department to finance energy efficiency  
3 measures, subject to sub-fund availability, on an on-going  
4 basis.

5 SECTION 2. Section 196-61, Hawaii Revised Statutes, is  
6 amended by adding three new definitions to be appropriately  
7 inserted and to read as follows:

8 "Energy efficiency measures" means any type of project  
9 conducted, or technology implemented, to reduce the consumption  
10 of energy in a building. The types of projects implemented can  
11 be in a variety of forms but are usually designed to reduce  
12 electric utility costs.

13 "Revolving line of credit" means a type of sub-fund for  
14 loan advances for eligible purposes and repaid principal is  
15 deposited back into the sub-fund for future loan advances.

16 "Sub-fund" means a separate fund within the green energy  
17 market securitization fund reserved for a specific purpose."

18 SECTION 3. Section 196-62, Hawaii Revised Statutes, is  
19 amended to read as follows:

20 "[+]§196-62[+] Hawaii green infrastructure loan program.

21 There is established a Hawaii green infrastructure loan program,



1 which shall be a loan program as defined under section 39-51.  
2 The program shall be administered by the authority on behalf of  
3 the department in a manner consistent with chapter 39, part III.  
4 This loan program may include loans made to government entities  
5 and private entities, whether corporations, partnerships,  
6 limited liability companies, or other persons, which entities  
7 may lease or provide green infrastructure equipment to electric  
8 utility customers, as well as direct loans to electric utility  
9 customers, on terms approved by the authority."

10 SECTION 4. Section 196-65, Hawaii Revised Statutes, is  
11 amended by amending subsection (b) to read as follows:

12 "(b) Moneys in the Hawaii green infrastructure special  
13 fund may be used, subject to the approval of the public  
14 utilities commission, for the purposes of:

15 (1) Making green infrastructure loans, including for  
16 installation costs for energy-efficient lighting and  
17 other energy-efficiency measures [~~related to heat~~  
18 ~~abatement at public schools~~];

19 (2) Creating a \$50,000,000 sub-fund, as a revolving line  
20 of credit under the umbrella of the green energy  
21 market securitization loan fund, for any state agency



- 1           or department to obtain low-cost financing to install
- 2           energy efficiency measures;
- 3       ~~[(2)]~~ (3)   Paying administrative costs of the Hawaii green
- 4           infrastructure loan program;
- 5       ~~[(3)]~~ (4)   Paying any other costs related to the Hawaii
- 6           green infrastructure loan program; or
- 7       ~~[(4)]~~ (5)   Paying financing costs, as defined in section
- 8           269-161, to the extent permitted by the public
- 9           utilities commission in a financing order issued
- 10          pursuant to section 269-163."

11           SECTION 5. There is appropriated out of the Hawaii green  
 12 infrastructure special fund the sum of \$50,000,000 or so much  
 13 thereof as may be necessary for fiscal year 2018-2019 for the  
 14 purpose of financing the installation costs for energy-efficient  
 15 lighting and other energy efficiency measures for any state  
 16 agency or department.

17           The sum appropriated shall be expended by the Hawaii green  
 18 infrastructure authority for the purposes of this Act.

19           SECTION 6. With the approval of the governor, interested  
 20 state agencies and departments may apply for financing, subject  
 21 to availability under the revolving line of credit for fiscal





1 year 2018-2019, and annually thereafter, from the green  
2 infrastructure loan program for the purposes of this Act, upon  
3 such terms and conditions as are agreed to between the  
4 department or agency and the Hawaii green infrastructure  
5 authority; provided that the loans shall be issued at an  
6 interest rate of 3.50 per cent per annum.

7 SECTION 7. The department or agency shall meet with the  
8 public benefits fee administrator prior to the launch of the  
9 project planning phase. The department or agency's proposed  
10 energy efficiency measures shall meet or exceed the public  
11 benefits fee administrator's enhanced efficiency levels and  
12 requirements in order to be eligible for the Hawaii green  
13 infrastructure loan program. The department or agency shall  
14 work with the public benefits fee administrator throughout the  
15 entire project cycle to ensure energy efficiency is maximized.  
16 All supporting documentation required by the public benefits fee  
17 administrator shall be provided by the department or agency to  
18 ensure proper tracking toward the State's energy-efficiency  
19 portfolio standard, as specified in section 269-96, Hawaii  
20 Revised Statutes.



1 SECTION 8. The department or agency shall submit an  
 2 expenditure plan to the Hawaii green infrastructure authority's  
 3 executive director, who shall serve as the fiscal administrator  
 4 for the loans issued pursuant to section 6 of this Act and shall  
 5 make payment on behalf of the department or agency, as  
 6 appropriate, upon submission of requests for payment from the  
 7 department or agency.

8 SECTION 9. Beginning with fiscal year 2018-2019, and  
 9 annually thereafter, the department or agency shall begin to  
 10 repay the loan pursuant to section 6 of this Act using general  
 11 revenue savings resulting from reduced utility costs as a result  
 12 of the implementation of energy efficient lighting and other  
 13 energy efficiency measures.

14 PART II

15 SECTION 10. The legislature finds that in September 2017,  
 16 Hurricanes Irma and Maria struck Puerto Rico with devastating  
 17 force, causing an estimated \$95,000,000,000 in damages to the  
 18 island, including extensive damages to the island's electrical  
 19 infrastructure. Recent estimates predict that power in Puerto  
 20 Rico will not be fully restored until spring of 2018, thus  
 21 leaving some residents without power for half a year. The



1 prolonged lack of electrical power has left the residents of  
2 Puerto Rico without essential services and has created a  
3 humanitarian crisis.

4 The legislature further finds that a direct hit on Oahu  
5 from a similar category five hurricane will almost certainly  
6 cause extensive property damage and extended power outages  
7 across the island. Moreover, much of the State's energy-  
8 generating infrastructure is susceptible to storm surges due to  
9 the structures being located at or near the coastline. The  
10 Hawaii emergency management agency estimates that under a best-  
11 case scenario, it would take at least fourteen days after  
12 landfall of a category four hurricane on Oahu to restore eighty  
13 per cent of grid power. Most public emergency shelters in the  
14 State do not have the capacity to provide two weeks of  
15 electrical service and relief from the mainland is dependent  
16 upon a functioning airport and seaport. Furthermore, the risks  
17 of a natural disaster increase with the impacts of climate  
18 change. Scientists have described 2017 as the most weather  
19 destructive year on record and opined that the number of extreme  
20 weather events will continue to increase.



1           The legislature hereby declares that it shall be the policy  
2 of the State to ensure that the State is prepared to withstand  
3 natural disasters and other emergencies by making investments in  
4 grid resiliency to protect the State's critical infrastructure  
5 and its citizens. The goals of this policy are: to prevent or  
6 reduce the severity of damage to the electric grid from a  
7 natural disaster or state of emergency; enable faster recovery  
8 of normal grid operations after a grid outage due to a natural  
9 disaster or state of emergency; and maintain critical loads at  
10 critical infrastructure such as hospitals, fire stations, police  
11 stations, airports, and seaports during a grid outage due to a  
12 natural disaster or state of emergency. Furthermore, a loan  
13 program is necessary to proactively upgrade resiliency before a  
14 natural disaster.

15           The purpose of this part is to:

- 16           (1) Create a grid resiliency task force to identify  
17                 critical infrastructure needs and provide  
18                 recommendations for enhancing grid resiliency to  
19                 critical infrastructure throughout the State;
- 20           (2) Establish a grid resiliency loan program to provide  
21                 funding for critical infrastructure;



1 (3) Direct government agencies to begin building grid  
2 resiliency into their planning; and

3 (4) Direct public utilities to incorporate grid resiliency  
4 planning into their integrated resource and grid  
5 modernization planning.

6 SECTION 11. Chapter 196, Hawaii Revised Statutes, is  
7 amended by adding two new sections to part III to be  
8 appropriately designated and to read as follows:

9 "§196-A Grid resiliency task force; membership. (a) A  
10 grid resiliency task force is established within the department  
11 of business, economic development, and tourism for  
12 administrative purposes.

13 (b) The task force shall comprise the following members or  
14 their designees:

15 (1) The governor, who shall serve as the chair;

16 (2) The head of each principal department;

17 (3) The administrator of the Hawaii emergency management  
18 agency;

19 (4) The chief justice;

20 (5) The chairperson of the board of trustees of the office  
21 of Hawaiian affairs;



- 1        (6) The president of the senate;  
2        (7) The speaker of the house of representatives; and  
3        (8) The mayors of the counties of Hawaii, Maui, and Kauai  
4        and the city and county of Honolulu.

5        §196-B Grid resiliency task force; duties. (a) The grid  
6 resiliency task force shall:

- 7        (1) Analyze grid resiliency incentive programs, including  
8        the California small generator incentive program, and  
9        recommend aspects of those programs that should be  
10       adopted by the State; and  
11       (2) Identify critical infrastructure and provide  
12       recommendations regarding the:  
13       (A) Amounts of funding necessary for the critical  
14       infrastructure loan program established in  
15       section 269-A; and  
16       (B) Priority recommendations for critical  
17       infrastructure upgrades.

18       (b) The task force may hire a consultant to assist the  
19 task force in performing its duties.

20       (c) No later than twenty days prior to the convening of  
21 the 2019 regular session, the task force shall submit an interim



1 report to the legislature. The report shall include the  
2 recommendations required under subsection (a)(2)(A).

3 (d) No later than twenty days prior to the convening of  
4 the 2020 regular session, the task force shall submit a final  
5 report to the legislature. The report shall include:

6 (1) A description of the activities of the task force for  
7 the previous fiscal year;

8 (2) Recommendations, including, if necessary, amendment to  
9 those recommendations made pursuant to subsection (c);  
10 and

11 (3) Recommended legislation, if any."

12 SECTION 12. Chapter 269, Hawaii Revised Statutes, is  
13 amended by adding two new sections to part I to be appropriately  
14 designated and to read as follows:

15 "§269-A Grid resiliency loan program. (a) There is  
16 established a grid resiliency loan program that shall be  
17 administered by the public utilities commission.

18 (b) In administering the grid resiliency loan program, the  
19 public utilities commission shall:

20 (1) After adopting or modifying the recommendations of the  
21 grid resiliency task force established pursuant to



- 1 section 269-C, expend moneys from the grid resiliency  
2 loan special fund established pursuant to section 269-  
3 B to fund loans for the purchase and installation of  
4 eligible resiliency facilities in accordance with this  
5 section;
- 6 (2) Prepare forms necessary for a resiliency facility  
7 owner to claim a loan under subsection (c);
- 8 (3) At regular intervals and within reasonable periods of  
9 time, post the amounts remaining in the grid  
10 resiliency loan special fund established in section  
11 269-B on its website;
- 12 (4) Administer the grid resiliency loan program in a  
13 manner to ensure that critical infrastructure  
14 throughout the State has sufficient grid resiliency  
15 facilities to maintain critical loads; and
- 16 (5) Adopt rules, without regard to chapter 91, necessary  
17 to effectuate the purposes of this section.
- 18 (c) A resiliency facility owner that:
- 19 (1) Leases an eligible resiliency facility to a resiliency  
20 facility user; or





1        (2) Purchases and installs an eligible resiliency facility  
2            in the State,  
3 may apply to the commission, within six months of the eligible  
4 resiliency facility being first placed in service, to claim a  
5 one-time loan per eligible resiliency facility under this  
6 section; provided that the loan shall be made available for  
7 eligible resiliency facilities first placed in service after  
8 June 30, 2019.

9        (d) A resiliency facility owner shall be entitled to  
10 receive a loan of no more than \_\_\_\_\_ per cent of the qualified  
11 resiliency facility costs for each eligible resiliency facility.

12        (e) Nothing in this section shall alter taxes due on the  
13 original purchase price of an eligible resiliency facility prior  
14 to the application of this loan. Any loan received pursuant to  
15 the grid resiliency loan program shall not be considered income  
16 for the purposes of state or county taxes.

17        §269-B Grid resiliency loan special fund. There is  
18 established a grid resiliency loan special fund within the  
19 treasury of the State into which shall be deposited:

20        (1) Appropriations made by the legislature into the fund;  
21            and



1           (2) The public benefits fee collected pursuant to section  
2                   269-121.

3 Moneys from the fund shall be used to fund loans in accordance  
4 with section 269-A."

5           SECTION 13. Section 196-2, Hawaii Revised Statutes, is  
6 amended by adding nine new definitions to be appropriately  
7 inserted and to read as follows:

8           "Battery storage device" means an identifiable facility,  
9 equipment, or apparatus that:

10           (1) Is electrically connected to a resiliency facility  
11 user's critical load and paired with a new or existing  
12 renewable generation system;

13           (2) Stores electricity from its paired renewable  
14 generation system via a chemical or mechanical  
15 process;

16           (3) Delivers stored energy at a later time to the  
17 resiliency facility user, an electric utility, or the  
18 Hawaii electric system; and

19           (4) Has a storage capacity capable of supplying:

20           (A) A critical infrastructure's critical load for a  
21 minimum of twenty-four hours; or



1           (B) The total of a critical infrastructure's average  
2           daily usage for a minimum of five hours.

3           "Critical infrastructure" means a police station, fire  
4           station, hospital, nursing home, designated emergency shelter,  
5           emergency care providers, health centers, and other critical  
6           infrastructure that may be designated by the governor pursuant  
7           to the recommendations of the grid resiliency task force, or by  
8           the governor or other authorized official pursuant to a natural  
9           disaster or state of emergency designation.

10          "Critical load" means the minimum load necessary for any  
11          critical infrastructure to perform its essential functions  
12          during a natural disaster or state of emergency.

13          "Designated emergency shelter" means any building owned by  
14          the State, a county, or a municipal government agency that has  
15          been designated by appropriate authorities as a place of  
16          community refuge made available to provide temporary shelter and  
17          housing to citizens during any natural disaster or state of  
18          emergency as declared by the governor or other authorized  
19          official.



1       "Eligible resiliency facility" means a battery storage  
2 device paired with an electric generation system powered by  
3 renewable energy that is:

- 4       (1) Installed on the property where critical  
5 infrastructure is located or on property contiguous to  
6 the property where critical infrastructure is located  
7 without regard to interruptions in contiguity caused  
8 by easements, public thoroughfares, transportation  
9 rights-of-way, and utility rights-of-way; provided  
10 that the contiguous property is owned or leased by the  
11 same person or entity that owns or leases the property  
12 where the critical infrastructure is located;
- 13       (2) Sized to power at least fifty per cent but not more  
14 than one hundred per cent of the critical  
15 infrastructure's annual electrical requirements;
- 16       (3) Is capable of isolating from the electric grid and  
17 operating independently during periods of electrical  
18 outages; and
- 19       (4) Is not owned by an electric utility.

20       "Grid resiliency" means the installation and operation of  
21 electrical equipment that:



- 1        (1) Prevents or reduces the severity of damage to the  
2        electric grid from a natural disaster or state of  
3        emergency;
- 4        (2) Enables faster recovery of normal grid operations  
5        after a grid outage due to a natural disaster or state  
6        of emergency; and
- 7        (3) Maintains critical loads at critical infrastructure  
8        during a grid outage due to a natural disaster or  
9        state of emergency.

10       "Qualified resiliency facility cost" means those  
11       expenditures made for the purchase and installation of an  
12       eligible resiliency facility. Expenditures made for the  
13       purchase and installation of a battery storage device that is  
14       paired with an existing renewable generation system is a  
15       qualified resiliency facility cost.

16       "Resiliency facility owner" means the person, individual,  
17       partnership, corporation, association, or public or private  
18       organization that holds legal title to an eligible resiliency  
19       facility.



1       "Resiliency facility user" means the real property owner,  
2 or the real property owner's lessees or tenants, that use the  
3 energy discharged from an eligible resiliency facility."

4       SECTION 14. Section 269-1, Hawaii Revised Statutes, is  
5 amended by adding eight new definitions to be appropriately  
6 inserted and to read as follows:

7       "Critical infrastructure" shall have the same meaning as  
8 defined in section 196-2.

9       "Critical load" shall have the same meaning as defined in  
10 section 196-2.

11       "Eligible resiliency facility" shall have the same meaning  
12 as defined in section 196-2.

13       "First placed in service" has the same meaning as title 26  
14 Code of Federal Regulations section 1.167(a)-11(e)(1).

15       "Grid resiliency" shall have the same meaning as defined in  
16 section 196-2.

17       "Qualified resiliency facility cost" shall have the same  
18 meaning as defined in section 196-2.

19       "Resiliency facility owner" shall have the same meaning as  
20 defined in section 196-2.



1        "Resiliency facility user" shall have the same meaning as  
2 defined in section 196-2."

3        SECTION 15. Section 269-121, Hawaii Revised Statutes, is  
4 amended by amending subsection (b) to read as follows:

5        "(b) The public benefits fee shall be used to support  
6 clean energy technology, demand response technology, grid  
7 resiliency, and energy use reduction, and demand-side management  
8 infrastructure, programs, and services, subject to the review  
9 and approval of the public utilities commission. Of the  
10 revenues collected pursuant to this section, \$                    shall be  
11 allocated to the grid resiliency loan special fund established  
12 pursuant to section 269-B to address critical infrastructure  
13 priorities. These moneys shall not be available to meet any  
14 current or past general obligations of the State; provided that  
15 the State may participate in any clean energy technology, demand  
16 response technology, or energy use reduction, and demand-side  
17 management infrastructure, programs, and services on the same  
18 basis as any other electric consumer.

19        For the purpose of this subsection, "clean energy  
20 technology" means any commercially available technology that  
21 enables the State to meet the renewable portfolio standards,



1 established pursuant to section 269-92, or the energy-efficiency  
2 portfolio standards, established pursuant to section 269-96, and  
3 approved by the public utilities commission by rule or order."

4 SECTION 16. Section 269-145.5, Hawaii Revised Statutes, is  
5 amended to read as follows:

6 "§269-145.5 **Advanced grid modernization technology;**  
7 **principles.** (a) The commission, in carrying out its  
8 responsibilities under this chapter, shall consider the value of  
9 improving electrical generation, transmission, and distribution  
10 systems and infrastructure within the State through the use of  
11 advanced grid modernization technology in order to improve the  
12 overall reliability and operational efficiency of the Hawaii  
13 electric system.

14 (b) In advancing the public interest, the commission shall  
15 balance technical, economic, environmental, and cultural  
16 considerations associated with modernization of the electric  
17 grid, based on principles that include but are not limited to:

- 18 (1) Enabling a diverse portfolio of renewable energy  
19 resources;  
20 (2) Expanding options for customers to manage their energy  
21 use;





- 1 (3) Maximizing interconnection of distributed generation  
2 to the State's electric grids on a cost-effective  
3 basis at non-discriminatory terms and at just and  
4 reasonable rates, while maintaining the reliability of  
5 the State's electric grids, and allowing such access  
6 and rates through applicable rules, orders, and  
7 tariffs as reviewed and approved by the commission;
- 8 (4) Determining fair compensation for electric grid  
9 services and other benefits provided to customers and  
10 for electric grid services and other benefits provided  
11 by distributed generation customers and other non-  
12 utility service providers; ~~and~~
- 13 (5) Maintaining or enhancing grid reliability and safety  
14 through modernization of the State's electric  
15 grids ~~[ ]~~; and
- 16 (6) Maintaining and enhancing grid resiliency.
- 17 (c) The commission shall require each electric public  
18 utility within its jurisdiction to incorporate a grid resiliency  
19 plan into the utility's integrated resource and grid  
20 modernization planning. All expenditures for grid resiliency  
21 approved by the commission as part of an electric public



1 utility's integrated resource plan or grid modernization plan  
2 shall be presumed to be just and reasonable for the purposes of  
3 the grid resiliency loan program pursuant to section 269-A."

4 SECTION 17. There is appropriated out of the green  
5 infrastructure special fund the sum of \$20,000,000 or so much  
6 thereof as may be necessary for fiscal year 2018-2019 to be  
7 deposited into the grid resiliency loan special fund established  
8 pursuant to section 196-B, Hawaii Revised Statutes, established  
9 in section 12 of this Act.

10 PART III

11 SECTION 18. In codifying the new sections added by  
12 sections 11 and 12 of this Act, the revisor of statutes shall  
13 substitute appropriate section numbers for the letters used in  
14 designating the new sections in this Act.

15 SECTION 19. Statutory material to be repealed is bracketed  
16 and stricken. New statutory material is underscored.

17 SECTION 20. This Act shall take effect on July 1, 2050.



**Report Title:**

Grid Resiliency; Loan Program; Special Fund; Task Force

**Description:**

Creates a \$50,000,000 revolving line of credit sub-fund under the umbrella of the Green Energy Market Securitization Loan Fund for any state agency or department to finance energy efficiency measures. Establishes the Grid Resiliency Loan Program and a Grid Resiliency Task Force to prepare the State's electrical grid for natural disasters and other emergencies. Establishes a Grid Resiliency Loan Special Fund to provide funding for critical infrastructure. (SB2910 HD1)

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





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

DAVID Y. IGE  
GOVERNOR

LUIS P. SALAVERIA  
DIRECTOR

MARY ALICE EVANS  
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  
**LUIS P. SALAVERIA**  
Director

Department of Business, Economic Development and Tourism  
before the

**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Wednesday, March 21, 2018

2:15 P.M.

State Capitol, Conference Room 329

in consideration of  
**SB2910, SD2, HD1**  
**RELATING TO ELECTRIC GRID RESILIENCY**

Chair Takumi, Vice Chair Ichiyama, and Members of the Committee.

The Department of Business, Economic Development, and Tourism (DBEDT) **offers comments on SB2910, SD2, HD1**, which creates a \$50.0 million revolving line of credit sub-fund under the umbrella of the green energy market securitization loan fund for any state agency or department to finance energy efficiency measures, establishes the grid resiliency loan program, and a grid resiliency task force to prepare the State's electrical grid for natural disasters and other emergencies.

HGIA has submitted testimony, and DBEDT defers to HGIA comments.

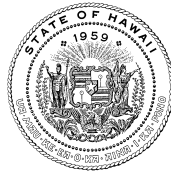
DBEDT appreciates the leadership found in Part II to enhance grid resiliency to prepare for and recover more quickly from events such as hurricanes, which are increasing in frequency.

Under the statutory responsibilities of the Energy Resource Coordinator, we could convene with stakeholders regarding grid resiliency and building grid resiliency into buildings and planning, but our limited staffing and funding for technical assistance is a concern.

DBEDT also has concerns with appropriating \$20 million from the Green Infrastructure Special Fund into the Grid Resiliency Loan Special Fund, as this will impact HGIA's ability to conduct its mandated responsibility.

Thank you for the opportunity to provide DBEDT's comments on SB2910, SD2, HD1.

DAVID Y. IGE  
GOVERNOR



LAUREL A. JOHNSTON  
DIRECTOR

KEN N. KITAMURA  
ACTING DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII  
DEPARTMENT OF BUDGET AND FINANCE**

P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**

**TESTIMONY BY LAUREL A. JOHNSTON  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE  
ON  
SENATE BILL NO. 2910, S.D. 2, H.D. 1**

**March 21, 2018  
2:15 p.m.  
Room 329**

**RELATING TO ELECTRIC GRID RESILIENCY**

Senate Bill No. 2910, S.D. 2, H.D. 1, creates a sub-fund under the umbrella of the Green Energy Market Securitization (GEMS) loan fund and appropriates \$50,000,000 in special funds in FY 19 from the GEMS loan fund to act as a revolving line of credit available for any State agency or department to obtain low-cost financing to install energy efficiency measures; creates a Grid Resiliency Task Force to identify critical infrastructure needs and provide recommendations for enhancing grid resiliency to critical infrastructure throughout the State; establishes the Grid Resiliency Loan Program and Grid Resiliency Loan Special Fund (GRLSF); allocates an unspecified amount from the revenues collected through the Public Benefits Fee as authorized in Section 269-121, HRS, to be deposited into the GRLSF; and appropriates out of the GEMS loan fund \$20,000,000 to be deposited into the GRLSF in FY 19 to provide loans to eligible resiliency facilities.

The Department of Budget and Finance, as a matter of general policy, does not support the creation of any special fund which does not meet the requirements of Section 37-52.3, HRS. Special funds should: 1) serve a need as demonstrated by the purpose, scope of work and an explanation why the program cannot be implemented successfully under the general fund appropriation process; 2) reflect a clear nexus between the benefits sought and charges made upon the users or beneficiaries or a

clear link between the program and the sources of revenue; 3) provide an appropriate means of financing for the program or activity; and 4) demonstrate the capacity to be financially self-sustaining. In regards to Senate Bill No. 2910, S.D. 2, H.D. 1, it is difficult to determine whether the GRLSF would be self-sustaining.

Thank you for your consideration of our comments.



DAVID Y. IGE  
GOVERNOR

GWEN S. YAMAMOTO LAU  
EXECUTIVE DIRECTOR

## HAWAII GREEN INFRASTRUCTURE AUTHORITY

No. 1 Capitol District Building, 250 South Hotel Street, Suite 501, Honolulu, Hawaii 96813  
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804  
Web site: gems.hawaii.gov

Telephone: (808) 587-3868  
Fax: (808) 587-3896

**Testimony of Gwen Yamamoto Lau, Executive Director  
Hawaii Green Infrastructure Authority (HGIA)**

before the

**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Wednesday, March 21, 2018 at 2:15 P.M.

State Capitol, Conference Room 329

in consideration of

**SENATE BILL NO. 2910, SD2, HD1  
RELATING TO ELECTRIC GRID RESILIENCY**

Chair Takumi, Vice Chair Ichiyama and Members of the Consumer Protection & Commerce Committee:

Thank you for the opportunity to testify and offer comments on Senate Bill 2910, SD2, HD1, relating to electric grid resiliency. This bill proposes to (1) create a sub-fund under the umbrella of the Green Energy Market Securitization (“GEMS”) loan fund and convert \$50.0 million into a revolving line of credit available for any state agency or department to obtain low-cost financing to install energy efficiency measures, (2) establish a grid resiliency task force, and (3) create a grid resiliency loan program utilizing \$20.0 million of GEMS funds.

HGIA will defer to Department of Business, Economic Development and Tourism on the grid resiliency task force and the Public Utilities Commission (“PUC”) on the loan program.

With approximately \$47.0 million in GEMS funds available, raiding \$20.0 million for the grid resiliency loan special fund would only leave some \$27.0 million in loan capital for HGIA’s existing lending programs, the Green Energy Money Saver On-Bill Program (the request for which was submitted to the PUC on February 28, 2018), and other future loan programs, including community based solar.

Thank you for this opportunity to testify and offer comments for Senate Bill 2910, SD2, HD1.

TESTIMONY OF RANDY IWASE  
CHAIR, PUBLIC UTILITIES COMMISSION  
STATE OF HAWAII  
TO THE  
HOUSE COMMITTEE ON CONSUMER PROTECTION AND COMMERCE  
March 21, 2018  
2:15 p.m.

**MEASURE:** S.B. No. 2910 HD1

**TITLE:** RELATING TO ELECTRIC GRID RESILIENCY.

Chair Takumi and Members of the Committees:

**DESCRIPTION:**

Creates a \$50,000,000 revolving line of credit sub-fund under the umbrella of the Green Energy Market Securitization Loan Fund for any state agency or department to finance energy efficiency measures. Establishes the Grid Resiliency Loan Program and a Grid Resiliency Task Force to prepare the State's electrical grid for natural disasters and other emergencies. Establishes a Grid Resiliency Loan Special Fund to provide funding for critical infrastructure. (SB2910 HD1)

**POSITION:**

The Public Utilities Commission ("Commission") offers the following comments for consideration.

**COMMENTS:**

The Commission takes no position on the \$50,000,000 revolving line of credit sub-fund under the umbrella of the green energy market securitization loan fund.

Regarding the grid resiliency loan program and the grid resiliency task force, the Commission welcomes Legislative guidance to specifically analyze vulnerability and improve grid resilience through planning and investment. The Commission notes that the Public Benefits Fee (PBF) supports the Hawaii Energy program and achievement of the State's energy efficiency portfolio standards under HRS § 269-96. Redirecting funds away from the PBF into the grid resiliency loan program could be detrimental to achievement of the State's energy efficiency standards under HRS § 269-96.



The Commission notes that in the alternative, this legislation would require increasing the PBF on customer bills to support the grid resiliency loan program. As such, the Commission requests the Legislature consider appropriating additional funds into the grid resiliency loan special fund instead of requiring an increase in the PBF.

In addition, the Commission is unclear as to whether it is the Legislature's intent that Section 16(c) of this measure would allow electric utilities to receive funds from the grid resiliency loan program.

Thank you for the opportunity to testify on this measure.



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

**HOUSE COMMITTEE ON CONSUMER PROTECTION & COMMERCE**

Wednesday, March 21, 2018 2:15PM Conference Room 329

**In SUPPORT of SB 2910 SD2 HD1** Relating to electric grid resiliency

---

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

On behalf of our 20,000 members and supporters, the Sierra Club of Hawai'i, a member of the Common Good Coalition, **strongly supports SB 2910 SD2 HD1**, a measure that creates a sub-fund under the GEMS loan fund to finance energy efficiency in the state. It also establishes a grid resiliency loan program a task force to prepare Hawai'i's electrical grid for natural disasters and other emergencies.

*The electrical infrastructure of Hawai'i is severely vulnerable to major disaster.* Currently, all of Hawai'i's major utility scale power generators sit within inundation zones across all islands. In the event of a major natural disaster, such as a category 4 hurricane or a tsunami, the majority of these generators would be rendered inoperable. This and other major vulnerabilities also extend to transformers, transmission systems, and distribution networks. The people of Hawai'i would be without power for days or weeks post disaster, and recovery would be slow and expensive.

SB 2910 SD2 HD1 creates a structure by which this system can be updated. By creating a sub-fund to finance resiliency in the electric grid, our emergency shelters and hospitals, and residential homes, this measure seeks to safeguard the people of Hawai'i against major disaster. Additionally, many of these updates will utilize renewable energy which is in line with Hawaii's 2045 RPS goals, the power supply improvement plan, and grid modernization efforts. SB 2910 SD2 HD1 simultaneously creates reliability, grid stability, and clean power infrastructure.

Last year, Hurricane Irma and Maria devastated the country of Puerto Rico and its people, leaving thousands without power and creating massive environmental devastation. A similar fate

awaits Hawai'i, unless this bill is passed. Major flooding in even one of our fuel oil burning power plants could irreversibly destroy the vulnerable ecosystems surrounding them. A renewable power generator on a similar geographic footprint, such as wind turbines or ground-mounted solar, would have not even 1/100 of the environmental impact of an inundated traditional fossil fuel plant. Solar panels do not generate oil slicks or leak dangerous hydrocarbons into the water supply.

**Hawai'i, its people, and the environment need smart energy policies** like SB 2910 SD2 HD1. The alternative to not passing this measure is terrifying and unacceptable.

We **strongly support SB 2910 SD2 HD1** and urge the committee to pass this measure.

**Testimony before the House Committee on Consumer Protection & Commerce**

**S.B. No. 2910, H.D. 1**

**Relating to Electric Grid Resiliency**

Wednesday, March 21, 2018

2:15 pm

State Capitol, Conference Room 329

Rodney Chong  
Manager, Grid Modernization  
Hawaiian Electric Company, Inc.

Chair Takumi, Vice Chair Ichiyama, and Members of the Committee:

My name is Rodney Chong 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 S.B. 2910, H.D. 1.

The preamble of this bill correctly frames the importance of and need to invest in grid resiliency. However the bill does not address improving overall electric system resilience – which benefits all customers - but instead focuses on using public funding for PV-battery systems to serve as emergency generators at critical infrastructure facilities. As such, this bill is too narrowly focused and fails to consider and prioritize resilience upgrades that provide the best benefits to the State.

S.B. 2910, H.D. 1 jumps to a one-size-fits-all solution without properly considering the specific needs of critical facilities. Although PV-battery systems may be suitable to provide emergency power for certain buildings if properly designed and hardened to withstand severe hurricanes and operate independently from the grid, they may still be inadequate for other critical facilities that will need emergency power during periods beyond the capability of a PV-battery system. The cloudy and rainy weather that we experienced last month has shown that having PV-battery systems

as a single solution will not always meet the needs for critical infrastructure to operate under a range of events and circumstances.

For example, the Queen's Medical Center and the Daniel K. Inouye International Airport have emergency power systems that are able to separate from the utility grid during a power outage and keep operating through prolonged periods of adverse weather, which a PV-battery system would not be able to do.

Furthermore, this bill does not take into consideration existing codes and standards related to emergency power systems, such as the National Fire Protection Association (NFPA) 101 Life Safety Code, NFPA 110 Emergency and Standby Power Systems, and NFPA 111 Standard on Stored Electrical Energy Emergency and Standby Power Systems, that have been developed over time and includes design, installation, and testing requirements for these systems..

We support the need for resilience of critical infrastructure and critical facilities. But there first needs to be a process of determining and prioritizing those needs, and then meeting those needs with the right solutions. We should not force fit one technology as the solution for resilience, because there are a variety of needs and a variety of solutions. We support the prior version of the bill, S.B. 2910 S.D. 2, since it appropriately focuses on the need to assess and prioritize the security and resiliency needs of our state's electric grid and critical infrastructure, and then to develop recommendations to best serve those needs.

Accordingly, the Hawaiian Electric Companies oppose S.B. 2910, H.D. 1.  
Thank you for this opportunity to testify.