HOUSE OF REPRESENTATIVES
TWENTY-NINTH LEGISLATURE, 2018
STATE OF HAWAII

H.B. NO. 2249 H.D. 2

A BILL FOR AN ACT

RELATING TO ELECTRIC GRID RESILIENCY.

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

PART I

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

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

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

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

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

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

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

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

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

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

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

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

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

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

"Revolving line of credit" means a type of credit where loan advances are made for eligible purposes and where repaid principal deposited back into the sub-fund can be re-borrowed.

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

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

"**[~~[~~]§196-62[~~]~~] Hawaii green infrastructure loan program.** There is established a Hawaii green infrastructure loan program,

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

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

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

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

(2) Creating a $30,000,000 sub-fund, as a revolving line of credit under the umbrella of the green energy market securitization loan fund, for any state agency

or department to obtain low-cost financing to install energy efficiency measures;

[~~(2)~~] (3) Paying administrative costs of the Hawaii green infrastructure loan program;

[~~(3)~~] (4) Paying any other costs related to the Hawaii green infrastructure loan program; or

[~~(4)~~] (5) Paying financing costs, as defined in section 269-161, to the extent permitted by the public utilities commission in a financing order issued pursuant to section 269-163."

SECTION 5. There is appropriated out of the Hawaii green infrastructure special fund the sum of $30,000,000 or so much thereof as may be necessary for fiscal year 2018-2019 for the purpose of financing the installation costs for energy-efficient lighting and other energy efficiency measures for any state agency or department.

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

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

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

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

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

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

PART II

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

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

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

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

The purpose of this part is to:

(1) Create a grid resiliency task force to identify critical infrastructure needs and provide recommendations for enhancing grid resiliency throughout the State;

(2) Establish a critical infrastructure rebate program to provide funding for critical infrastructure;

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

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

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

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

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

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

(2) The head of each principal department;

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

(4) The chief justice;

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

(6) The president of the senate;

(7) The speaker of the house of representatives; and

(8) The mayors of the counties of Hawaii, Maui, and Kauai and the city and county of Honolulu.

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

(1) Analyze grid resiliency incentive programs, including the California small generator incentive program, and recommend aspects of those programs that should be adopted by the State; and

(2) Identify critical infrastructure and provide recommendations regarding the:

(A) Amounts of funding necessary for the grid resiliency rebate program established in section 269-A; and

(B) Priority recommendations for critical infrastructure upgrades.

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

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

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

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

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

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

(3) Recommended legislation, if any."

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

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

(b) In administering the grid resiliency rebate program, the public utilities commission shall:

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

section 269-C, expend moneys from the grid resiliency rebate special fund established pursuant to section 269-B to fund rebates for the purchase and installation of eligible resiliency facilities in accordance with this section;

(2) Prepare forms necessary for a resiliency facility owner to claim a rebate under subsection (c);

(3) At regular intervals and within reasonable periods of time, post the amounts remaining in the grid resiliency rebate special fund established in section 269-B on its website;

(4) Administer the grid resiliency rebate program in a manner to ensure that critical infrastructure throughout the State has sufficient grid resiliency facilities to maintain critical loads; and

(5) Adopt rules, without regard to chapter 91, necessary to effectuate the purposes of this section.

(c) A resiliency facility owner that:

(1) Leases an eligible resiliency facility to a resiliency facility user; or

(2) Purchases and installs an eligible resiliency facility in the State,

may apply to the commission, within six months of the eligible resiliency facility being first placed in service, to claim a one-time rebate per eligible resiliency facility under this section; provided that the rebate shall be made available for eligible resiliency facilities first placed in service after June 30, 2019.

(d) A resiliency facility owner shall be entitled to receive a rebate of no more than per cent of the qualified resiliency facility costs for each eligible resiliency facility.

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

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

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

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

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

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

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

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

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

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

(4) Has a storage capacity capable of supplying:

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

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

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

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

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

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

(1) Installed on the property where critical infrastructure is located or on property contiguous to the property where critical infrastructure is located without regard to interruptions in contiguity caused by easements, public thoroughfares, transportation rights-of-way, and utility rights-of-way; provided that the contiguous property is owned or leased by the same person or entity that owns or leases the property where the critical infrastructure is located;

(2) Sized to power at least fifty per cent but not more than one hundred per cent of the critical infrastructure's annual electrical requirements;

(3) Is capable of isolating from the electric grid and operating independently during periods of electrical outages; and

(4) Is not owned by an electric utility.

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

(1) Prevents or reduces the severity of damage to the electric grid from a natural disaster or state of emergency;

(2) Enables faster recovery of normal grid operations after a grid outage due to a natural disaster or state of emergency; and

(3) Maintains critical loads at critical infrastructure during a grid outage due to a natural disaster or state of emergency.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Enabling a diverse portfolio of renewable energy resources;

(2) Expanding options for customers to manage their energy use;

(3) Maximizing interconnection of distributed generation to the State's electric grids on a cost-effective basis at non-discriminatory terms and at just and reasonable rates, while maintaining the reliability of the State's electric grids, and allowing such access and rates through applicable rules, orders, and tariffs as reviewed and approved by the commission;

(4) Determining fair compensation for electric grid services and other benefits provided to customers and for electric grid services and other benefits provided by distributed generation customers and other non-utility service providers; [~~and~~]

(5) Maintaining or enhancing grid reliability and safety through modernization of the State's electric grids [~~.~~]; and

(6) Maintaining and enhancing grid resiliency.

(c) The commission shall require each electric public utility within its jurisdiction to incorporate a grid resiliency plan into the utility's integrated resource and grid modernization planning. All expenditures for grid resiliency approved by the commission as part of an electric public

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

SECTION 17. There is appropriated out of the green infrastructure special fund the sum of $20,000,000 or so much thereof as may be necessary for fiscal year 2018-2019 to be deposited into the grid resiliency rebate special fund established pursuant to section 196-B, Hawaii Revised Statutes, established in section 2 of this Act.

PART III

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

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

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

H.B. NO. 2249 H.D. 2

Report Title:
Grid Resiliency; Energy; Disaster Preparedness; Capital Investment; Rebate Program; Task Force

Description:
Creates a $30,000,000 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 Rebate Program and a Grid Resiliency Task Force to prepare the State's electrical grid for natural disasters and other emergencies. (HB2249 HD2)

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