

JAN 24 2018

A BILL FOR AN ACT

RELATING TO ELECTRIC GRID RESILIENCY.

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

1 SECTION 1. The legislature finds that in September 2017,
2 Hurricanes Irma and Maria struck Puerto Rico with devastating
3 force, causing an estimated \$95,000,000,000 in damages to the
4 island, including extensive damages to the island's electrical
5 infrastructure. Recent estimates predict that power in Puerto
6 Rico will not be fully restored until spring of 2018, thus
7 leaving some residents without power for half a year. The
8 prolonged lack of electrical power has left the residents of
9 Puerto Rico without essential services and has created a
10 humanitarian crisis.

11 The legislature further finds that a direct hit on Oahu
12 from a similar category five hurricane will almost certainly
13 cause extensive property damage and extended power outages
14 across the island. Moreover, much of the State's energy-
15 generating infrastructure is susceptible to storm surges due to
16 the structures being located at or near the coastline. The
17 Hawaii emergency management agency estimates that under a best-



1 case scenario, it would take at least fourteen days after
2 landfall of a category four hurricane on Oahu to restore eighty
3 per cent of grid power. Most public emergency shelters in the
4 State do not have the capacity to provide two weeks of
5 electrical service and relief from the mainland is dependent
6 upon a functioning airport and seaport. Furthermore, the risks
7 of a natural disaster increase with the impacts of climate
8 change. Scientists have described 2017 as the most weather
9 destructive year on record and opined that the number of extreme
10 weather events will continue to increase.

11 The legislature hereby declares that it shall be the policy
12 of the State to ensure that the State is prepared to withstand
13 natural disasters and other emergencies by making investments in
14 grid resiliency to protect the State's critical infrastructure
15 and its citizens. The goals of this policy are: to prevent or
16 reduce the severity of damage to the electric grid from a
17 natural disaster or state of emergency; enable faster recovery
18 of normal grid operations after a grid outage due to a natural
19 disaster or state of emergency; and maintain critical loads at
20 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.

The purpose of this Act is to:

- (1) Establish programs and designate funds that shall provide immediate, emergency funding for the development of energy facilities at critical infrastructure;
- (2) Create a grid resiliency task force to identify critical infrastructure needs and provide recommendations for enhancing grid resiliency throughout the State;
- (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 2. Chapter 196, Hawaii Revised Statutes, is amended by adding four new sections to part III to be appropriately designated and to read as follows:

"§196-A Grid resiliency capital investment program. (a)

There is established a grid resiliency capital investment



1 program that shall be administered by the department of
2 business, economic development, and tourism.

3 (b) In administering the grid resiliency capital
4 investment program, the department shall:

5 (1) After adopting or modifying the recommendations of the
6 grid resiliency task force established pursuant to
7 section 269-C, expend moneys from the grid resiliency
8 capital investment special fund established pursuant
9 to section 196-B to fund rebates for the purchase and
10 installation of critical infrastructure in accordance
11 with this section;

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

14 (3) At regular intervals and within reasonable periods of
15 time, post the balance of the funds remaining in the
16 grid resiliency capital investment special fund
17 established in section 196-B on its website; and

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

20 (c) In administering the grid resiliency capital
21 investment program, the department of business, economic



1 development, and tourism may, without regard to chapter 103D,
2 contract with a third party for services to assist with the
3 administration of the program.

4 (d) A resiliency facility owner that:

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

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

9 may apply for a one-time rebate per eligible resiliency facility
10 under this section; provided that the rebate shall only be
11 available for eligible resiliency facilities placed into service
12 after June 30, , and before July 1, .

13 (e) A resiliency facility owner shall be entitled to
14 receive a rebate equal to per cent of the qualified
15 resiliency facility costs of each eligible resiliency facility.

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



1 **§196-B Grid resiliency capital investment special fund.**

2 There is established a grid resiliency capital investment
3 special fund within the treasury of the State into which shall
4 be deposited appropriations made by the legislature into the
5 fund. Moneys from the fund shall be used to fund rebates for
6 the purchase and installation of critical infrastructure in
7 accordance with section 196-A.

8 **§196-C Grid resiliency task force; membership.** (a) A

9 grid resiliency task force is established within the department
10 of business, economic development, and tourism for
11 administrative purposes.

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

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

15 (2) The head of each principal department;

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

18 (4) The chief justice;

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

21 (6) The president of the senate; and



(7) The speaker of the house of representatives.

§196-D 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 any emergency spending necessary for the grid resiliency capital investment program established in section 196-A; and

(B) Amounts of spending necessary for the grid resiliency rebate program established in section 269-A.

(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 2020 regular session, the task force shall submit a report to the legislature. The report shall include the recommendations required under subsection (a)(2)(A).



1 (d) No later than twenty days prior to the convening of
2 the 2021 regular session, the task force shall submit a report
3 to the legislature. The report shall include:

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

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

9 (3) Recommended legislation, if any."

10 SECTION 3. Chapter 269, Hawaii Revised Statutes, is
11 amended by adding two new sections to part I to be appropriately
12 designated and to read as follows:

13 **"§269-A Grid resiliency rebate program.** (a) There is
14 established a grid resiliency rebate program that shall be
15 administered by the commission.

16 (b) In administering the grid resiliency rebate program,
17 the commission shall:

18 (1) After adopting or modifying the recommendations of the
19 grid resiliency task force established pursuant to
20 section 269-C, expend moneys from the grid resiliency
21 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,



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

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

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

15 **§269-B Grid resiliency rebate special fund.** There is
16 established a grid resiliency rebate special fund within the
17 treasury of the State into which shall be deposited:

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

19 and

20 (2) The public benefits fee collected pursuant to section

21 269-121.



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

3 SECTION 4. Section 196-2, Hawaii Revised Statutes, is
4 amended by adding ten new definitions to be appropriately
5 inserted and to read as follows:

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

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

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

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

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

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

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



1 "Critical infrastructure" means a police station, fire
2 station, hospital, nursing home, designated emergency shelter,
3 the primary residences of first responders, and other critical
4 infrastructure that may be designated by the governor pursuant
5 to the recommendations of the grid resiliency task force, or by
6 the governor or other authorized official pursuant to a natural
7 disaster or state of emergency designation.

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

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

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



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

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

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

16 (4) Is not owned by an electric utility.

17 "First responder" means a firefighter, police officer,
18 paramedic or individual who is employed by any federal, state,
19 county, or municipal agency, or employed by a private company
20 contracted by any federal, state, county, or municipal agency,
21 that ordinarily provides emergency services to citizens of this



1 State during a natural disaster or state of emergency as
2 declared by state or federal authorities.

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

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

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

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

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

20 "Resiliency facility owner" means the person, individual,
21 partnership, corporation, association, or public or private



1 organization that holds legal title to an eligible resiliency
2 facility.

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

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

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

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

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

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

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

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



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

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

5 SECTION 6. Section 269-121, Hawaii Revised Statutes, is
6 amended by amending subsection (b) to read as follows:

7 "(b) The public benefits fee shall be used to support
8 clean energy technology, demand response technology, grid
9 resiliency, and energy use reduction, and demand-side management
10 infrastructure, programs, and services, subject to the review
11 and approval of the public utilities commission. Of the
12 revenues collected pursuant to this section, \$ shall be
13 allocated to the grid resiliency rebate special fund established
14 pursuant to section 269-B. The public benefits fee shall be set
15 at a level sufficient to meet the allocation to the grid
16 resiliency rebate special fund required by this section. These
17 moneys shall not be available to meet any current or past
18 general obligations of the State; provided that the State may
19 participate in any clean energy technology, demand response
20 technology, or energy use reduction, and demand-side management



1 infrastructure, programs, and services on the same basis as any
2 other electric consumer.

3 For the purpose of this subsection, "clean energy
4 technology" means any commercially available technology that
5 enables the State to meet the renewable portfolio standards,
6 established pursuant to section 269-92, or the energy-efficiency
7 portfolio standards, established pursuant to section 269-96, and
8 approved by the public utilities commission by rule or order."

9 SECTION 7. Section 269-145.5, Hawaii Revised Statutes, is
10 amended to read as follows:

11 **"§269-145.5 Advanced grid modernization technology;**

12 **principles.** (a) The commission, in carrying out its
13 responsibilities under this chapter, shall consider the value of
14 improving electrical generation, transmission, and distribution
15 systems and infrastructure within the State through the use of
16 advanced grid modernization technology in order to improve the
17 overall reliability and operational efficiency of the Hawaii
18 electric system.

19 (b) In advancing the public interest, the commission shall
20 balance technical, economic, environmental, and cultural



1 considerations associated with modernization of the electric
2 grid, based on principles that include but are not limited to:

- 3 (1) Enabling a diverse portfolio of renewable energy
4 resources;
- 5 (2) Expanding options for customers to manage their energy
6 use;
- 7 (3) Maximizing interconnection of distributed generation
8 to the State's electric grids on a cost-effective
9 basis at non-discriminatory terms and at just and
10 reasonable rates, while maintaining the reliability of
11 the State's electric grids, and allowing such access
12 and rates through applicable rules, orders, and
13 tariffs as reviewed and approved by the commission;
- 14 (4) Determining fair compensation for electric grid
15 services and other benefits provided to customers and
16 for electric grid services and other benefits provided
17 by distributed generation customers and other non-
18 utility service providers; ~~and~~
- 19 (5) Maintaining or enhancing grid reliability and safety
20 through modernization of the State's electric
21 grids[-]; and



1 (6) Maintaining and enhancing grid resiliency.

2 (c) The commission shall require each electric public
3 utility within its jurisdiction to incorporate a grid resiliency
4 plan into the utility's integrated resource and grid
5 modernization planning. All expenditures for grid resiliency
6 approved by the commission as part of an electric public
7 utility's integrated resource plan or grid modernization plan
8 shall be presumed to be just and reasonable for the purposes of
9 the grid resilience rebate program pursuant to section 269-A."

10 SECTION 8. There is appropriated out of the general
11 revenues of the State of Hawaii the sum of \$ or so much
12 thereof as may be necessary for fiscal year 2018-2019 to be
13 deposited into the grid resiliency capital investment special
14 fund established pursuant to section 196-B, Hawaii Revised
15 Statutes, established in section 2 of this Act.

16 SECTION 9. There is appropriated out of the grid
17 resiliency capital investment special fund or so much thereof as
18 may be necessary for fiscal year 2018-2019 for providing rebates
19 for the purchase and installation of critical infrastructure
20 pursuant to section 196-A, Hawaii Revised Statutes, established
21 in section 2 of this Act.



1 The sum appropriated shall be expended by the department of
 2 business, economic development, and tourism for the purposes of
 3 this Act.

4 SECTION 10. In codifying the new sections added by
 5 sections 2 and 3 of this Act, the revisor of statutes shall
 6 substitute appropriate section numbers for the letters used in
 7 designating the new sections in this Act.

8 SECTION 11. Statutory material to be repealed is bracketed
 9 and stricken. New statutory material is underscored.

10 SECTION 12. This Act shall take effect on July 1, 2018.

11 INTRODUCED BY:

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S.B. NO. 2910

Report Title:

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

Description:

Establishes the grid resiliency capital investment program and the grid resiliency rebate program as well as a grid resiliency task force to prepare the State's electrical grid for natural disasters and other emergencies.

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