

JAN 20 2017

A BILL FOR AN ACT

RELATING TO ENERGY STORAGE.

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

1 SECTION 1. In 2013, the Hawaii green infrastructure loan
2 program was established, according to the strongly supportive
3 testimony of the public utilities commission, to "serve as a
4 potential source of capital for a range of clean energy
5 technology users, including renters and residents that have not
6 been able to take advantage of current financing programs and
7 may now take advantage of increasing opportunities to install
8 clean energy technology".

9 However, the State has seen a significant shift in
10 opportunities for investment in renewable energy since 2013.
11 The popular Net Energy Metering (NEM) program is now closed and
12 the grid supply tariff has several limits on enrollment.
13 Furthermore, the self-supply tariff, which only allows for the
14 installation of a renewable energy system which does not export
15 energy to the grid, requires at least some energy storage for
16 most systems to operate efficiently. Energy storage adds
17 considerable cost to renewable energy systems, and the added



1 cost and other restrictions have resulted in slow adoption of
2 the self-supply tariff. At the same time, the development of
3 energy storage is seen as a crucial next step toward the
4 development of a smart, updated electrical grid which can
5 accommodate more renewable energy resources, help customers take
6 charge of their bills, and contribute to overall grid resiliency
7 and reliability as we work toward our one hundred per cent
8 Renewable Portfolio Standard (RPS) goal.

9 Due to these changes in the energy market and other
10 factors, the Hawaii green infrastructure loan program has
11 deployed less than 1.3 per cent of its loan funds as of
12 January 1, 2017. The residential photovoltaic loan product
13 currently offered by GEMS and available to underserved customers
14 as originally envisioned by the legislature in 2013 is no longer
15 relevant as NEM has closed and the grid supply tariff is limited
16 by an enrollment cap. These challenges have resulted in a GEMS
17 program that has not yet recognized its mission nor established
18 truly viable products for the underserved markets, such as
19 renewable energy offerings suitable for low to moderate income
20 homeowners, renters, churches, and non-profit organizations.



1 The purpose of this Act is to assist all of Hawaii's
2 electric ratepayers, including Hawaii's underserved residents
3 and businesses, by broadening the scope of the GEMS authority
4 and by repurposing a portion of the dormant funds to help
5 accelerate the market transformation and adoption of energy
6 storage technologies that can be utilized now.

7 The GEMS authority was created to accelerate the adoption
8 of renewable energy and to ensure that all ratepayers could
9 receive the benefits of renewable energy investments. This Act
10 further provides guidance to maintain and strengthen the GEMS
11 authority as an intact body, while also broadening the scope of
12 the authority to include an updated mandate for renewable energy
13 adoption in the State.

14 SECTION 2. Chapter 196, Hawaii Revised Statutes, is
15 amended by adding two new sections to part IV to be
16 appropriately designated and to read as follows:

17 "§196-A Energy storage market acceleration program; energy
18 storage rebate program. (a) There is established the Hawaii
19 energy storage market acceleration program that shall be
20 administered as a rebate program by the authority in a manner
21 consistent with this part. The authority shall:



- 1 (1) Prepare any forms that may be necessary for the energy
2 storage system owner to claim a rebate from the energy
3 storage system fund and shall post these forms on a
4 publicly available website;
- 5 (2) Require the energy storage system owner claiming a
6 rebate under this section to furnish reasonable
7 information to ascertain the validity of the claim,
8 including but not limited to documentation necessary
9 to demonstrate that the system for which the rebate is
10 claimed is an eligible energy storage system;
- 11 (3) Allow each energy storage system owner to establish
12 income eligibility, as necessary, through a
13 declaration asserting that the information provided is
14 true and correct and made under penalty of law;
- 15 (4) Make best efforts to post on a publicly available
16 website, within regular and reasonable periods of
17 time, the current amounts remaining in the energy
18 storage system fund;
- 19 (5) Establish guidelines necessary to effectuate the
20 purposes of this section; provided that the



1 establishment of such guidelines shall not be subject
2 to chapter 91;
3 provided that the authority may contract with a third party for
4 services to assist with administering the energy storage market
5 acceleration fund and such procurement of services shall be
6 exempt from the requirements of chapter 103D.

7 (b) Each energy storage system owner who provides third
8 party financing to an energy storage system user, or purchases
9 and installs in this State an eligible energy storage system,
10 may apply to the authority, within twelve months of the eligible
11 energy storage system's being first placed into service, for a
12 rebate from the energy storage system fund, subject to the
13 following:

14 (1) The maximum eligible rebate for each residential
15 energy system where the federal adjusted gross income
16 of the energy storage system user is \$75,000 or less
17 for single filers or \$150,000 or less for joint filers
18 in the preceding tax year in which the rebate is
19 claimed shall be the lesser of \$10,000 or;
20 (A) 75 cents per watt-hour of the system's warranted
21 capacity of stored energy for systems first



1 placed in service after July 31, 2017, and before
2 January 1, 2020;

3 (B) 65 cents per watt-hour of the system's warranted
4 capacity of stored energy for systems first
5 placed in service after December 31, 2019, and
6 before January 1, 2021; or

7 (C) 55 cents per watt-hour of the system's warranted
8 capacity of stored energy for systems first
9 placed in service after December 31, 2020, and
10 before January 1, 2022;

11 (2) The maximum eligible rebate for each residential
12 energy system where the federal adjusted gross income
13 of the energy storage user is greater than \$75,000 for
14 single filers or greater than \$150,000 for joint
15 filers in the preceding tax year in which the credit
16 is claimed, shall be the lesser of \$10,000 or;

17 (A) 60 cents per watt-hour of the system's warranted
18 capacity of stored energy for systems first
19 placed in service after July 31, 2017, and before
20 January 1, 2020;



1 (B) 50 cents per watt-hour of the system's warranted
2 capacity of stored energy for systems first
3 placed in service after December 31, 2019, and
4 before January 1, 2021; or

5 (C) 40 cents per watt-hour of the system's warranted
6 capacity of stored energy for systems first
7 placed in service after December 31, 2020, and
8 before January 1, 2022;

9 (3) The maximum eligible rebate for each multi-family
10 energy storage system shall be the lesser of \$10,000
11 or;

12 (A) 60 cents per watt-hour of the system's warranted
13 capacity of stored energy for systems first
14 placed in service after July 31, 2017, and before
15 January 1, 2020;

16 (B) 50 cents per watt-hour of the system's warranted
17 capacity of stored energy for systems first
18 placed in service after December 31, 2019, and
19 before January 1, 2021; or

20 (C) 40 cents per watt-hour of the system's warranted
21 capacity of stored energy for systems first



1 placed in service after December 31, 2020, and
2 before January 1, 2022;

3 (4) The maximum eligible rebate for each commercial energy
4 storage system, shall be the lesser of \$10,000 or;

5 (A) 60 cents per watt-hour of the system's warranted
6 capacity of stored energy for systems first
7 placed in service after July 31, 2017, and before
8 January 1, 2020;

9 (B) 50 cents per watt-hour of the system's warranted
10 capacity of stored energy if applicable, for
11 systems first placed in service after
12 December 31, 2019, and before January 1, 2021; or

13 (C) 40 cents per watt-hour of the system's warranted
14 capacity of stored energy for systems first
15 placed in service after December 31, 2020, and
16 before January 1, 2022;

17 (5) The maximum eligible rebate for each energy storage
18 system that is co-sited and electrically connected to
19 an eligible community-based renewable energy project
20 as defined by the public utilities commission pursuant



1 to section 269-27.4 shall be the lesser of \$250,000
2 or;
3 (A) 45 cents per watt-hour of the system's warranted
4 capacity of stored energy for systems first
5 placed in service after July 31, 2017, and before
6 January 1, 2020;
7 (B) 35 cents per watt-hour of the system's warranted
8 capacity of stored energy for systems first
9 placed in service after December 31, 2019, and
10 before January 1, 2021;
11 (C) 25 cents per watt-hour of the system's warranted
12 capacity of stored energy for systems first
13 placed in service after December 31, 2020, and
14 before January 1, 2022;
15 (d) This section shall apply to eligible energy storage
16 systems that are installed and first placed in service after
17 July 31, 2017.

18 §196-B Energy storage market acceleration special fund.
19 (a) There is established the energy storage market acceleration
20 special fund into which shall be deposited appropriations from
21 the Hawaii green infrastructure special fund.

- 1 (2) Is permanently fixed to a residential or commercial
- 2 property and electrically connected to an energy
- 3 storage system user's load or generation, or an energy
- 4 storage system that is co-sited and permanently fixed
- 5 to property and electrically connected to an eligible
- 6 community-based renewable energy project;
- 7 (3) Has a continuous battery charge and discharge capacity
- 8 of at least five kilowatt-hours of stored energy at
- 9 time of purchase;
- 10 (4) Has a maximum battery charge and discharge power of no
- 11 more than four megawatt-hours at time of purchase;
- 12 (5) Is protected by a manufacturer's warranty of at least
- 13 ten years or a minimum of three thousand cycles;
- 14 (6) Is not owned by an electric utility; and
- 15 (7) Is connected to an electric utility grid.

16 "Energy storage market acceleration fund" means the special

17 fund established pursuant to section 196-B for the purpose of

18 providing rebates for eligible energy storage systems through

19 the energy storage system rebate program.

20 "Energy storage market acceleration program" means the

21 program established by section 196-A to fund rebates for



1 eligible energy storage systems from the storage market
2 acceleration special fund.

3 "Energy storage system property owner" means the person,
4 individual, partnership, corporation, association, or public or
5 private organization other than an agency that holds legal title
6 to the energy storage system. An energy storage system property
7 owner shall include the owner of third-party financed energy
8 storage systems. All of the energy storage behind a single
9 meter shall be counted as one system.

10 "Energy storage system user" means the property owner, or
11 the property owner's lessees or tenants, that use the energy
12 discharged by the eligible energy storage system on the property
13 where the eligible energy storage system is located or on
14 contiguous property owned or leased by the property owner
15 without regard to interruptions in contiguity caused by
16 easements, public thoroughfares, transportation rights-of-way,
17 and utility rights-of-way.

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

20 SECTION 5. Section 196-64, Hawaii Revised Statutes, is
21 amended to read as follows:



1 " [†]§196-64 [†] Functions, powers, and duties of the
2 authority. (a) In the performance of, and with respect to the
3 functions, powers, and duties vested in the authority by this
4 part, the authority, as directed by the director and in
5 accordance with a green infrastructure loan program order or
6 orders under section 269-171 or an annual plan submitted by the
7 authority pursuant to this section, as approved by the public
8 utilities commission may:

- 9 (1) Make loans and expend funds to finance the purchase or
10 installation of green infrastructure equipment for
11 clean energy technology, demand response technology,
12 and energy use reduction and demand side management
13 infrastructure, programs, and services;
- 14 (2) Hold and invest moneys in the green infrastructure
15 special fund in investments as permitted by law and in
16 accordance with approved investment guidelines
17 established in one or more orders issued by the public
18 utilities commission pursuant to section 269-171;
- 19 (3) Hire employees necessary to perform its duties,
20 including an executive director. The executive
21 director shall be appointed by the authority, and the



- 1 employees' positions, including the executive
2 director's position, shall be exempt from chapter 76;
- 3 (4) Enter into contracts for the service of consultants
4 for rendering professional and technical assistance
5 and advice, and any other contracts that are necessary
6 and proper for the implementation of the loan program;
- 7 (5) Enter into contracts for the administration of the
8 loan program, without the necessity of complying with
9 chapter 103D;
- 10 (6) Establish loan program guidelines to be approved in
11 one or more orders issued by the public utilities
12 commission pursuant to section 269-171 to carry out
13 the purposes of this part;
- 14 (7) Be audited at least annually by a firm of independent
15 certified public accountants selected by the
16 authority, and provide the results of this audit to
17 the department and the public utilities commission;
18 and
- 19 (8) Perform all functions necessary to effectuate the
20 purposes of this part.



1 (b) The authority shall submit to the public utilities
2 commission an annual plan for review and approval no later than
3 ninety days prior to the start of each fiscal year. The annual
4 plan submitted by the authority shall include the authority's
5 projected operational budget for the succeeding fiscal year.

6 (c) Notwithstanding subsections (a) and (b), the authority
7 shall make available from the Hawaii green infrastructure
8 special fund any amounts appropriated for deposit into the
9 energy market acceleration special fund for the energy storage
10 market rebate program."

11 SECTION 6. Section 196-65, Hawaii Revised Statutes, is
12 amended by amending subsection (b) to read as follows:

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

- 16 (1) Making green infrastructure loans;
17 (2) Paying administrative costs of the Hawaii green
18 infrastructure loan program;
19 (3) Paying any other costs related to the Hawaii green
20 infrastructure loan program; [e]



- 1 (4) Paying financing costs, as defined in section 269-161,
2 to the extent permitted by the public utilities
3 commission in a financing order issued pursuant to
4 section 269-163 [-]; or
- 5 (5) Deposit into energy storage market acceleration
6 special fund; provided that approval by the public
7 utilities commission shall not be required for such
8 deposit."

9 SECTION 7. Section 269-170, Hawaii Revised Statutes, is
10 amended by amending subsection (a) to read as follows:

11 "(a) The authority shall submit an application to the
12 public utilities commission for the use or other disposition of
13 amounts deposited or held in the green infrastructure special
14 fund pursuant to section 196-65 prior to the allocation, use,
15 expenditure, or other disposition of any such amounts; provided
16 that this subsection shall not apply to the following:

- 17 (1) The expenditure of amounts deposited or held in the
18 green infrastructure special fund that have been
19 reviewed and approved by the public utilities
20 commission for operational or administrative expenses
21 of the authority pursuant to section 196-64 [-]; and



1 (2) The expenditure of amounts deposited or held in the
2 Hawaii green infrastructure special fund for deposit
3 into the energy storage market acceleration special
4 fund for purpose of funding the energy storage market
5 rebate program, pursuant to section 196-65(b)."

6 SECTION 8. (a) The legislature finds and declares that
7 the appropriation of funds under this Act is in the public
8 interest and for the public health, safety, and welfare.

9 (b) The department of business, economic development, and
10 tourism and the green infrastructure authority shall develop any
11 forms and guidelines necessary for the implementation of the
12 energy storage market acceleration program created by section 2
13 of this Act no later than December 31, 2017.

14 (c) To the extent there is any conflict between this Act
15 and part III of chapter 39, Hawaii Revised Statutes, this Act
16 shall prevail.

17 SECTION 9. There is appropriated out of the Hawaii green
18 infrastructure special fund established pursuant to section 196-
19 65, Hawaii Revised Statutes, the sum of \$50,000,000 or so much
20 thereof as may be necessary for fiscal year 2017-2018 and the
21 same sum or so much thereof as may be necessary for fiscal year



1 2018-2019 to be deposited into the energy storage market
2 acceleration fund.

3 SECTION 10. There is appropriated out of the energy
4 storage market acceleration fund the sum of \$50,000,000 or so
5 much thereof as may be necessary for fiscal year 2017-2018 and
6 the same sum or so much thereof as may be necessary for fiscal
7 year 2018-2019 for making energy storage system rebate program
8 payments pursuant to section 196-A, Hawaii Revised Statutes, and
9 paying the authority's administrative costs for operating the
10 energy storage system rebate program.

11 The sums appropriated shall be expended by the department
12 of business, economic development, and tourism for the purposes
13 of this Act.

14 SECTION 11. If any provision of this Act, or the
15 application thereof to any person or circumstance, is held
16 invalid, the invalidity does not affect other provisions or
17 applications of the Act that can be given effect without the
18 invalid provision or application, and to this end the provisions
19 of this Act are severable.



1 SECTION 12. This Act does not affect rights and duties
2 that matured, penalties that were incurred, and proceedings that
3 were begun before its effective date.

4 SECTION 13. In codifying the new sections added by section
5 2 of this Act, the revisor of statutes shall substitute
6 appropriate section numbers for the letters used in designating
7 the new sections in this Act.

8 SECTION 14. Statutory material to be repealed is bracketed
9 and stricken. New statutory material is underscored.

10 SECTION 15. This Act shall take effect on July 1, 2017.

11

INTRODUCED BY:

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S.B. NO. 660

Report Title:

Energy Storage Rebate Program; Energy Storage Market Acceleration Program; Green Infrastructure Special Fund; Energy Storage Market Acceleration Special Fund; Appropriation

Description:

Creates the energy storage market acceleration program and energy storage market acceleration special fund to be administered by the Hawaii green infrastructure authority. Establishes an energy storage system rebate for energy storage system providers and allows for rebates under the program to be paid out of the energy storage market acceleration special fund. Appropriates the funds from the Hawaii green infrastructure special fund to the energy storage market acceleration special fund for the purposes of paying rebates and administering the energy storage system rebate program.

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