
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 Hawaii's residents
2 and businesses are vulnerable to disruptions in the State's
3 energy systems caused by extreme weather events or other
4 disasters. In 2017, Puerto Rico was devastated by Hurricane
5 Maria, leaving a majority of the island's residents without
6 power for months after the storm made landfall.

7 The legislature further finds that, if a disaster of
8 similar magnitude impacted Hawaii, having some shelters equipped
9 to continue to provide backup power independent of the electric
10 grid while recovery efforts are underway will greatly increase
11 disaster preparedness.

12 In many areas of Hawaii, public school structures have also
13 served as designated shelters during hurricane warnings and
14 other disaster events. In 2016 as part of an effort to air
15 condition more schools while keeping utility bills in check, the
16 legislature created a goal for the State's public schools to
17 become net-zero in regards to energy use by the year 2035.



1 Following this, many schools have begun to install renewable
2 energy systems in order to meet this goal. However, the
3 department of education has no directive or incentive to install
4 systems that are sized or designed to both meet the daily
5 electricity needs of a school during normal operations, and to
6 function as a backup power system for a disaster shelter that
7 can operate independently from the grid at times. Although there
8 is an additional cost associated with the installation of such a
9 system, it would also provide value to the utility and its
10 customers by increasing disaster preparedness and by providing
11 ancillary services to the grid during regular operations.

12 Therefore, the legislature finds that it will be beneficial
13 to create incentives for the department of education to invest
14 in such systems, and to encourage the public utilities
15 commission to consider allowing an interconnection agreement
16 with the utility that credits or refunds schools for the grid
17 services provided to help cover the additional cost of
18 installing systems specifically designed to offer grid services
19 to the grid, whether in the form of ancillary services or more
20 broadly supporting public resilience.



1 Accordingly, the purpose of this Act is to:

2 (1) Require the department of education to establish a
3 pilot program in which various schools are provided
4 with renewable energy systems that are capable of
5 providing backup power in the event of a natural
6 disaster or other similar emergency; and

7 (2) Require the public utilities commission to consider
8 ways to incentivize the installation in public schools
9 of renewable energy systems that can provide backup
10 power in the event the broader electric grid cannot
11 provide power.

12 SECTION 2. Section 302A-1510, Hawaii Revised Statutes, is
13 amended to read as follows:

14 "[+] §302A-1510 [+] **Sustainable schools initiative.** (a)

15 The department shall establish a goal of becoming net-zero with
16 respect to energy use, producing as much renewable energy as the
17 department consumes across all public school facilities, by
18 January 1, 2035.

19 (b) The department shall use the amount and value of
20 energy consumed by the department across all public school
21 facilities during the 2015-2016 fiscal year as the benchmark for



1 measuring the department's progress toward the energy usage goal
2 set forth in subsection (a).

3 (c) The department shall submit an annual report that
4 shall include information on:

5 (1) The overall progress toward the net-zero energy goal
6 set forth in subsection (a);

7 (2) Its plans and recommendations to advance the net-zero
8 energy goal set forth in subsection (a); and

9 (3) Any challenges or barriers encountered or anticipated
10 by the department in meeting the net-zero energy goal
11 set forth in subsection (a).

12 (d) The department shall expedite the cooling of all
13 public school classrooms to a temperature acceptable for student
14 learning. When implementing classroom cooling measures, the
15 department, and any contractor hired to implement classroom
16 cooling measures, shall maximize energy efficiency and
17 installation and operating cost savings over the entire life of
18 the project.

19 (e) Pursuant to this section, the department shall include
20 in the report the status of the implementation of measures taken



1 to cool public school classrooms as required by subsection (d).

2 The report shall include the following information:

3 (1) The number of completed classrooms in which cooling
4 measures were implemented and the number of classrooms
5 remaining that require cooling;

6 (2) The different types of cooling measures implemented;

7 (3) The approximate cost per classroom for planned cooling
8 measures, including installation, upgrades, equipment,
9 maintenance, and projected operating costs over the
10 life of the installed cooling measures;

11 (4) The approximate cost per completed classroom for
12 cooling measures implemented, including installation,
13 upgrades, equipment, maintenance, and projected
14 operating costs over the life of the installed cooling
15 measures;

16 (5) The number of completed classrooms in which energy
17 efficiency measures were installed or implemented and
18 the number of classrooms remaining that require energy
19 efficiency measures; and

20 (6) The different types of energy efficiency measures
21 installed or implemented.



1 (f) The department shall establish and implement a pilot
2 program in at least four schools in which the schools are
3 provided with renewable energy systems that are capable of
4 continuously providing backup electrical power, to be sourced
5 from renewable energy, in the event that the electric grid
6 cannot provide power. The department shall select schools that
7 are likely to be designated as emergency shelters in the event
8 of a natural disaster. In selecting the renewable energy
9 systems, the department shall consider, among other things, a
10 system's capacity for generating and providing energy to the
11 electric grid over the lifetime of the system.

12 (g) The department shall report its findings and
13 recommendations, including any proposed legislation, to the
14 legislature no later than twenty days prior to the convening of
15 each regular session."

16 SECTION 3. The public utilities commission shall consider
17 ways to incentivize the installation in public schools of
18 renewable energy systems that can provide backup power in the
19 event the broader electric grid cannot provide power in its
20 current and ongoing proceedings.



1 SECTION 4. Statutory material to be repealed is bracketed
2 and stricken. New statutory material is underscored.

3 SECTION 5. This Act shall take effect on July 1, 2100.



Report Title:

DOE; PUC; Electric Grid; Renewable Energy; Sustainable Schools Initiative

Description:

Requires the Department of Education to establish a pilot program in 4 schools to install renewable energy systems capable of providing backup power in the event of a natural disaster or other similar emergency. Requires the Public Utilities Commission to consider in its current and ongoing proceedings ways to incentivize the implementation of renewable energy systems in public schools. (HB1583 HD1)

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