

JAN 23 2025

A BILL FOR AN ACT

RELATING TO LONG DURATION CLEAN ENERGY STORAGE.

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

1 SECTION 1. The legislature finds that extreme weather
2 exacerbated by climate change affects the supply and
3 availability of all forms of energy, including local renewable
4 resources and imported fuels.

5 The legislature also finds that the ability to store
6 locally produced clean energy can mitigate the supply
7 disruptions that could result from extreme weather or other
8 events that might disrupt the flow of imported energy
9 commodities or the availability of local renewable resources.

10 The legislature recognizes that the United States
11 Department of Energy has a goal of reducing the cost of long
12 duration storage by ninety per cent by 2031, and intends to make
13 available significant levels of funding to support its energy
14 storage grand challenge roadmap.

15 The legislature further finds that the vast majority of
16 utility-scale energy storage capacity in the United States is
17 pumped storage hydroelectric capacity, due to its relatively low
18 water consumption, capital cost, and land requirements.

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1 The purpose of this Act is to identify likely pumped
2 storage hydropower locations, or sites for other long duration
3 clean energy storage technologies, and promote their
4 development.

5 SECTION 2. Section 196-10, Hawaii Revised Statutes, is
6 amended to read as follows:

7 " [†] §196-10 [†] Hawaii renewable hydrogen and long duration
8 clean energy storage program. There is established, within the
9 department of business, economic development, and tourism, a
10 Hawaii renewable hydrogen and long duration clean energy storage
11 program to manage the State's transition to a renewable hydrogen
12 economy. The program shall design, implement, and administer
13 activities that include:

- 14 (1) Strategic partnerships for the research, development,
15 testing, and deployment of renewable hydrogen and long
16 duration clean energy storage technologies;
- 17 (2) Engineering and economic evaluations of Hawaii's
18 potential for renewable hydrogen use and long duration
19 clean energy storage, including near-term project
20 opportunities for the State's renewable energy
21 resources;

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- 1 (3) Electric grid reliability and security projects that
2 will enable the integration of a substantial increase
3 of electricity from renewable energy resources on the
4 island of Hawaii;
- 5 (4) Hydrogen and long duration clean energy storage
6 demonstration projects, including infrastructure for
7 the production, storage, and refueling of hydrogen
8 vehicles;
- 9 (5) A statewide hydrogen and long duration clean energy
10 storage economy public education and outreach plan
11 focusing on the island of Hawaii, to be developed in
12 coordination with Hawaii's public education
13 institutions;
- 14 (6) Promotion of Hawaii's renewable hydrogen and long
15 duration clean energy storage resources to potential
16 partners and investors;
- 17 ~~(7) A plan, for implementation during the years 2007 to~~
18 ~~2010, to more fully deploy hydrogen technologies and~~
19 ~~infrastructure capable of supporting the island of~~
20 ~~Hawaii's energy needs, including:~~
- 21 ~~(A) Expanded installation of hydrogen production~~
22 ~~facilities;~~

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- 1 ~~(B)~~ Development of integrated energy systems,
- 2 including hydrogen vehicles;
- 3 ~~(C)~~ Construction of additional hydrogen refueling
- 4 stations; and
- 5 ~~(D)~~ Promotion of building design and construction
- 6 that fully incorporates clean energy assets,
- 7 including reliance on hydrogen fueled energy
- 8 generation;
- 9 ~~(8)~~ A plan, for implementation during the years 2010 to
- 10 2020, to transition the island of Hawaii to a
- 11 hydrogen fueled economy and to extend the application
- 12 of the plan throughout the State; and
- 13 ~~(9)~~] (7) Evaluation of policy recommendations to:
- 14 (A) Encourage the adoption of long duration clean
- 15 energy storage and potential customers of that
- 16 storage, including hydrogen-fueled vehicles;
- 17 (B) Continually fund the hydrogen and long duration
- 18 clean energy storage investment capital special
- 19 fund; and
- 20 (C) Support investment in hydrogen and long duration
- 21 clean energy storage infrastructure[, including

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1 ~~production, storage, and dispensing facilities.] ;~~

2 and

3 (8) Engineering and economic evaluations of potential
4 locations for long duration clean energy storage,
5 including pumped storage hydroelectric projects as a
6 priority, and hydrogen that:

7 (A) Maximize the positive ecological, social, and
8 economic benefits to nearby resources, including
9 agricultural and recreational land use; and

10 (B) Minimize or avoid negative impacts on cultural
11 heritage, productive agricultural land, and
12 habitat."

13 SECTION 3. Section 206M-63, Hawaii Revised Statutes, is
14 amended to read as follows:

15 " [†] §206M-63 [†] Hydrogen and long duration clean energy
16 storage investment capital special fund. (a) There shall be
17 established the hydrogen and long duration clean energy storage
18 investment capital special fund, into which shall be deposited:

- 19 (1) Appropriations made by the legislature to the fund;
20 (2) All contributions from public or private partners;
21 (3) All interest earned on or accrued to moneys deposited
22 in the special fund; and

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1 (4) Any other moneys made available to the special fund
2 from other sources.

3 (b) Moneys in the fund shall be expended by the
4 development corporation:

5 (1) To provide seed capital for and venture capital
6 investments in private sector and federal projects for
7 research, development, testing, and implementation of
8 the Hawaii renewable hydrogen and long duration clean
9 energy storage program, as set forth in section 196-
10 10; and

11 (2) For any other purpose deemed necessary to carry out
12 the purposes of section 196-10."

13 SECTION 4. There is appropriated out of the energy
14 security special fund established in section 201-12.8, Hawaii
15 Revised Statutes, the sum of \$3,500,000 or so much thereof as
16 may be necessary for fiscal year 2025-2026 for the activities
17 described in section 196-10, Hawaii Revised Statutes, including
18 temporary staff that may be needed to support actions related to
19 the activities of this Act.

20 The sum appropriated shall be expended by the Hawaii state
21 energy office for the purposes of this Act.

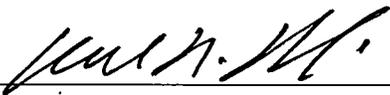
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1 SECTION 5. Statutory material to be repealed is bracketed
2 and stricken. New statutory material is underscored.

3 SECTION 6. This Act, upon its approval, shall take effect
4 on July 1, 2025.

5

6

INTRODUCED BY: 

7

BY REQUEST

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Report Title:

Hawaii State Energy Office; Renewable Energy; Energy Storage;
Appropriation

Description:

Requires high quality resource characterization of pumped storage hydropower locations, or other long duration clean energy storage technologies, and promotes their development.

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

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JUSTIFICATION SHEET

DEPARTMENT: Business, Economic Development, and Tourism

TITLE: A BILL FOR AN ACT RELATING TO LONG DURATION CLEAN ENERGY STORAGE.

PURPOSE: To identify likely pumped storage hydropower locations, or sites for other long duration clean energy storage technologies, and promote their development.

MEANS: Amend sections 196-10 and 206M-63, Hawaii Revised Statutes.

JUSTIFICATION: This bill is needed to address pressing concerns related to energy security and sustainability in Hawaii, align with national energy goals, and establish a program to support research, development, and deployment of renewable hydrogen and long duration clean energy storage technologies. Also, this bill ensures that the Hawaii renewable hydrogen and long duration clean energy storage program will consider the importance of pumped storage hydroelectric capacity, which can have ecological, social, and economic benefits while minimizing negative impacts on the environment and cultural heritage.

Impact on the public: The public would benefit from understanding where long duration clean energy storage is available to promote reliable and secure local clean energy supplies.

Impact on the department and other agencies: The Hawaii State Energy Office would be able to support the State's energy security and decarbonization goals.

GENERAL FUND: None.

OTHER FUNDS: \$3,500,000 from the Energy Security Special Fund.

PPBS PROGRAM
DESIGNATION: BED-120.

OTHER AFFECTED
AGENCIES: Department of Land and Natural Resources and
Department of Health.

EFFECTIVE DATE: July 1, 2025.