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# 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



1 pumped storage hydroelectric capacity, due to its relatively low  
2 water consumption, capital cost, and land requirements.

3 The purpose of this Act is to:

- 4 (1) Rename the Hawaii renewable hydrogen program to the  
5 Hawaii renewable hydrogen and long duration clean  
6 energy storage program;
- 7 (2) Amend the required activities of the program,  
8 including conducting engineering and economic  
9 evaluations of potential locations for long duration  
10 clean energy storage and pumped storage hydroelectric  
11 projects; and
- 12 (3) Rename the hydrogen investment special fund to the  
13 hydrogen and long duration clean energy storage  
14 investment capital special fund.

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

17 "[f]§196-10[+] **Hawaii renewable hydrogen and long duration**  
18 **clean energy storage program.** There is established, within the  
19 department of business, economic development, and tourism, a  
20 Hawaii renewable hydrogen and long duration clean energy storage  
21 program to manage the State's transition to a renewable hydrogen



1 economy. The program shall design, implement, and administer  
2 activities that include:

3 (1) Strategic partnerships for the research, development,  
4 testing, and deployment of renewable hydrogen and long  
5 duration clean energy storage technologies;

6 (2) Engineering and economic evaluations of Hawaii's  
7 potential for renewable hydrogen use and long duration  
8 clean energy storage, including near-term project  
9 opportunities for the State's renewable energy  
10 resources;

11 (3) Electric grid reliability and security projects that  
12 will enable the integration of a substantial increase  
13 of electricity from renewable energy resources on the  
14 island of Hawaii;

15 (4) Hydrogen and long duration clean energy storage  
16 demonstration projects, including infrastructure for  
17 the production, storage, and refueling of hydrogen  
18 vehicles;

19 (5) A statewide hydrogen and long duration clean energy  
20 storage economy public education and outreach plan  
21 focusing on the island of Hawaii, to be developed in



- 1 coordination with Hawaii's public education  
2 institutions;
- 3 (6) Promotion of Hawaii's renewable hydrogen and long  
4 duration clean energy storage resources to potential  
5 partners and investors;
- 6 ~~[(7) A plan, for implementation during the years 2007 to~~  
7 ~~2010, to more fully deploy hydrogen technologies and~~  
8 ~~infrastructure capable of supporting the island of~~  
9 ~~Hawaii's energy needs, including:~~
- 10 ~~(A) Expanded installation of hydrogen production~~  
11 ~~facilities;~~
- 12 ~~(B) Development of integrated energy systems,~~  
13 ~~including hydrogen vehicles;~~
- 14 ~~(C) Construction of additional hydrogen refueling~~  
15 ~~stations; and~~
- 16 ~~(D) Promotion of building design and construction~~  
17 ~~that fully incorporates clean energy assets,~~  
18 ~~including reliance on hydrogen-fueled energy~~  
19 ~~generation;~~
- 20 ~~(8) A plan, for implementation during the years 2010 to~~  
21 ~~2020, to transition the island of Hawaii to a~~



1 ~~hydrogen-fueled economy and to extend the application~~  
2 ~~of the plan throughout the State; and~~

3 ~~(9)]~~ (7) Evaluation of policy recommendations to:

4 (A) Encourage the adoption of long duration clean  
5 energy storage and potential customers of that  
6 storage, including hydrogen-fueled vehicles;

7 (B) Continually fund the hydrogen and long duration  
8 clean energy storage investment capital special  
9 fund; and

10 (C) Support investment in hydrogen and long duration  
11 clean energy storage infrastructure~~[, including~~  
12 ~~production, storage, and dispensing facilities.];~~  
13 and

14 (8) Engineering and economic evaluations of potential  
15 locations for long duration clean energy storage,  
16 including pumped storage hydroelectric projects as a  
17 priority, and hydrogen that:

18 (A) Maximize the positive ecological, social, and  
19 economic benefits to nearby resources, including  
20 agricultural and recreational land use; and



1           (B) Minimize or avoid negative impacts on cultural  
 2           heritage, productive agricultural land, and  
 3           habitat."

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

6           "[\S206M-63] **Hydrogen and long duration clean energy**  
 7 **storage investment capital special fund.** (a) There shall be

8 established the hydrogen and long duration clean energy storage  
 9 investment capital special fund, into which shall be deposited:

- 10           (1) Appropriations made by the legislature to the fund;
- 11           (2) All contributions from public or private partners;
- 12           (3) All interest earned on or accrued to moneys deposited
- 13           in the special fund; and
- 14           (4) Any other moneys made available to the special fund
- 15           from other sources.

16           (b) Moneys in the fund shall be expended by the  
 17 development corporation:

- 18           (1) To provide seed capital for and venture capital
- 19           investments in private sector and federal projects for
- 20           research, development, testing, and implementation of
- 21           the Hawaii renewable hydrogen and long duration clean



1           energy storage program, as set forth in section 196-  
2           10; and

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

5           SECTION 4. There is appropriated out of the energy  
6 security special fund established in section 201-12.8, Hawaii  
7 Revised Statutes, the sum of \$3,500,000 or so much thereof as  
8 may be necessary for fiscal year 2025-2026 for the activities  
9 described in section 196-10, Hawaii Revised Statutes, as amended  
10 in this Act, including the establishment of temporary positions  
11 that may be needed to support actions related to the activities  
12 of this Act.

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

15           SECTION 5. Statutory material to be repealed is bracketed  
16 and stricken. New statutory material is underscored.

17           SECTION 6. This Act shall take effect on May 13, 2040.



**Report Title:**

Hawaii State Energy Office; Renewable Energy; Energy Storage; Hawaii Renewable Hydrogen and Long Duration Clean Energy Storage Program; Hydrogen and Long Duration Clean Energy Storage Investment Capital Special Fund; Appropriation

**Description:**

Renames the Hawaii Renewable Hydrogen Program to the Hawaii Renewable Hydrogen and Long Duration Clean Energy Storage Program (Program). Amends the required activities of the Program, including conducting engineering and economic evaluations of potential locations for long duration clean energy storage and pumped storage hydroelectric projects. Renames the Hydrogen Investment Special Fund to the Hydrogen and Long Duration Clean Energy Storage Investment Capital Special Fund. Effective 5/13/2040. (SD1)

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