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# A BILL FOR AN ACT

RELATING TO ENERGY.

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

1 PART I

2 SECTION 1. The legislature finds and declares that Hawaii  
3 has struggled for thirty years to develop renewable energy  
4 resources to reduce its dependence on imported sources of  
5 energy, such as fossil fuels. In 1974, the legislature passed a  
6 series of Acts that recognized the vulnerability of Hawaii's  
7 residents to the petroleum industry as a result of its reliance  
8 on imported oil for transportation fuels and power generation.  
9 Over the thirty years that followed, the legislature has enacted  
10 laws and appropriated funds to further develop alternative  
11 sources of energy.

12 In 2006, the legislature passed groundbreaking legislation,  
13 found in Act 240, Session Laws of Hawaii 2006, to promote energy  
14 self-sufficiency for the State. Act 240 promoted further  
15 development of renewable energy, including increased financial  
16 incentives, mechanisms for dedicated sources of funding, and the  
17 development of hydrogen as a renewable energy source. While  
18 progress has been made, there is still much to be done.



1           In 2006, the legislature also adopted House Concurrent  
2 Resolution No. 195, calling for a study of the feasibility of  
3 developing biofuels as a renewable energy primarily for  
4 electricity generation. The legislature recognized that the  
5 land-based development of crops for use in biofuels production  
6 for Hawaii would achieve the objective of energy self-  
7 sufficiency. The legislature also recognized that complex  
8 issues relating to land acquisition, water supply, and  
9 investment risk would need to be addressed before a viable and  
10 cost-effective biofuels program could be developed. The  
11 legislature finds that an integrated approach must be undertaken  
12 to coordinate the various industries and federal and state  
13 agencies to ensure the success of any substantial investment in  
14 biofuels development.

15           The legislature also finds that Hawaii should diversify its  
16 energy system and reduce its dependence on imported petroleum by  
17 introducing bioenergy resources into the overall energy system.

18           In response to this desire to diversify Hawaii's energy  
19 system, a biofuels summit and bioenergy workshop were held in  
20 2006 to explore the potential for a domestic bioenergy and  
21 biofuels future. Both resulted in the realization that the  
22 initiation of a bioenergy industry in Hawaii must first address



1 a diverse and very complex set of issues that involves many  
2 public and private stakeholders.

3 The summit and workshop demonstrated the effectiveness of  
4 facilitated collaboration and pointed to the value of a  
5 mechanism to coordinate the development of supply, production  
6 capability, and infrastructure, each with long, independent lead  
7 times, that is understood and supported by both public and  
8 private stakeholders. Therefore, the legislature finds that the  
9 preparation of a biofuels master plan is necessary to establish  
10 a cohesive roadmap for the development of a bioenergy industry  
11 in Hawaii.

12 The purpose of this Act is three-fold:

13 (1) Part II statutorily establishes the Hawaii natural  
14 energy institute of the University of Hawaii at Manoa,  
15 defines its mission, and creates the energy systems  
16 development special fund for the development of  
17 renewable energy and end-use energy-efficient  
18 technologies, including those that ameliorate peak  
19 demand problems. The roles of the institute will  
20 include:



- 1 (A) Managing the portfolio of renewable energy and
- 2 energy efficiency technology programs to ensure
- 3 an integrated approach;
- 4 (B) Using its technical expertise to advise state and
- 5 federal agencies on the maximization of funding
- 6 sources and encouragement of private industry
- 7 investments; and
- 8 (C) Evaluating Hawaii's efforts toward energy self-
- 9 sufficiency;
- 10 (2) Part III establishes the Hawaii biofuels program
- 11 within the department of business, economic
- 12 development, and tourism to manage the state's
- 13 transition to energy self-sufficiency based in part on
- 14 biofuels for power generation and transportation
- 15 fuels, and creates the biofuels development revolving
- 16 loan fund, to be administered by the Hawaii strategic
- 17 development corporation with technical advice from the
- 18 Hawaii natural energy institute, to provide seed
- 19 financing for commercially-viable biofuel development
- 20 projects, pending adoption of a comprehensive plan for
- 21 Hawaii's energy self-sufficiency based, in part, on
- 22 biofuels; and



1 (3) Part IV tasks the department of business, economic  
 2 development, and tourism with the development and  
 3 preparation of a bioenergy master plan that will set  
 4 the course for the coordination and implementation of  
 5 policies and procedures to develop a bioenergy  
 6 industry in Hawaii.

7 PART II

8 SECTION 2. Chapter 304A, Hawaii Revised Statutes, is  
 9 amended by adding a new subpart to part IV to be appropriately  
 10 designated and to read as follows:

11 " . Hawaii Natural Energy Institute"

12 **§304A-A Hawaii natural energy institute; structure;**

13 **function.** (a) There is established the Hawaii natural energy  
 14 institute at the University of Hawaii. The institute shall be  
 15 administered by a director to be appointed by the board of  
 16 regents upon recommendation by the president. The director of  
 17 the institute shall appoint the professional members of the  
 18 staff and other employees. The president and board of regents  
 19 shall have the same powers over the institute and its staff as  
 20 over the university and its facilities.

21 (b) The director of the institute shall coordinate the  
 22 institute's work with the energy resources coordinator in



1 carrying out duties pursuant to section 196-4 in the area of  
2 research and development of renewable energy sources.

3 (c) The institute shall:

- 4 (1) Develop renewable sources of energy for power  
5 generation and transportation fuels by coordinating  
6 the activities of state agencies and working with  
7 federal agencies and private entities;
- 8 (2) Conduct research and development of renewable sources  
9 of energy;
- 10 (3) Demonstrate and deploy efficient energy end use  
11 technologies, including those that address peak demand  
12 issues;
- 13 (4) Aggressively seek matching funding from federal  
14 agencies and private entities for its research and  
15 development activities; and
- 16 (5) Report annually to the legislature, no less than  
17 twenty days prior to the convening of each regular  
18 session, on its activities, expenditures, contracts  
19 developed, advances in technology, assessment and  
20 analyses of state agencies and programs, and  
21 recommendations for proposed legislation.



**§304A-B Advisory council to Hawaii natural energy**

**institute.** (a) The institute shall establish an advisory council of seven members, appointed by the president from a list of nominees submitted by the Hawaii energy policy forum and the technology officer of the department of business, economic development, and tourism. The members of the advisory council shall be from the general public, organizations representing the utility industry, technology providers, and environmental groups. Members shall be selected on the basis of their proven expertise and interest in the field of renewable energy. The director of the institute and the energy resources coordinator shall serve as ex officio nonvoting members of the advisory council.

(b) The primary role of the advisory council shall be to make recommendations to the director on the award of contracts and grants funded through the institute.

(c) The advisory council may advise the director on matters of strategic planning, goals and objectives, significant initiatives of the institute, and other matters as determined by the director.

**§304A-C Energy systems development special fund. (a)**

There is established the energy systems development special fund



1 for the purpose of developing an integrated approach and  
2 portfolio management of renewable energy and energy efficiency  
3 technology projects that will reduce Hawaii's dependence on  
4 fossil fuel and imported oil and other imported energy resources  
5 and move Hawaii toward energy self-sufficiency.

- 6 (b) The special fund shall be funded by:
- 7 (1) Appropriations from the legislature;
  - 8 (2) Investment earnings, gifts, donations, or other income  
9 received by the institute;
  - 10 (3) A portion of any public benefit fees that may be  
11 established and approved by the public utilities  
12 commission pursuant to section 269-121; and
  - 13 (4) per cent from the environmental response fund.

- 14 (c) The institute may use the special fund for the  
15 following activities:
- 16 (1) Obtaining matching funds from federal and private  
17 sources for research and development of renewable  
18 energy sources;
  - 19 (2) Awarding contracts or grants to develop and deploy  
20 technologies that will reduce Hawaii's dependence on  
21 imported energy resources and imported oil. Projects  
22 may be commissioned that:

- 1 (A) Balance the risk, benefits, and time horizons of
- 2 the investment to ensure tangible benefits to the
- 3 Hawaii consumer, with priority given to short
- 4 term technology development;
- 5 (B) Emphasize innovative and renewable energy supply
- 6 and energy efficient end use technologies
- 7 focusing on environmental attributes,
- 8 reliability, and affordability;
- 9 (C) Enhance transmission and distribution
- 10 capabilities of renewable energy supply;
- 11 (D) Enhance reliability and storage capabilities of
- 12 renewable energy;
- 13 (E) Ensure that research, deployment, and
- 14 demonstration efforts build on existing programs
- 15 and resources and are not duplicated;
- 16 (F) Address critical technical and scientific
- 17 barriers to achieving energy self-sufficiency by
- 18 reducing dependence on imported oil and imported
- 19 energy resources;
- 20 (G) Ensure that technology used and developed for
- 21 renewable energy production and distribution will
- 22 be commercially viable; and



1 (H) Give priority to resources that are indigenous  
2 and unique to Hawaii.

3 (3) Managing the portfolio of projects commissioned under  
4 this subsection; and

5 (4) Conducting an evaluation of projects and activities  
6 funded by the special fund, assessing, using objective  
7 criteria, the degree to which the projects and  
8 activities comport with and achieve stated objectives.  
9 An evaluation shall be conducted at the end of the  
10 third year after the effective date of this Act, and  
11 thereafter every three years by a two-person panel of  
12 independent energy and environmental technical experts  
13 who are not affiliated with the Hawaii natural energy  
14 institute. The panel shall report the results of its  
15 evaluation to the legislature no less than twenty days  
16 prior to the convening of the following regular  
17 session."

18 SECTION 3. Act 235, Session Laws of Hawaii 1974, is  
19 repealed.

20 SECTION 4. There is appropriated out of the general  
21 revenues of the State of Hawaii the sum of \$1 for fiscal year  
22 2007-2008 and the same sum for fiscal year 2008-2009 to be

1 deposited into the energy systems development special fund  
2 pursuant to section 304A-C, Hawaii revised statutes.

3 SECTION 5. There is appropriated out of the energy systems  
4 development special fund the sum of \$1 or so much thereof as may  
5 be necessary for fiscal year 2007-2008 and the same sum or so  
6 much thereof as may be necessary for fiscal year 2008-2009 for  
7 the purposes of the energy systems development special fund  
8 established pursuant to section 304A-C.

9 The sums appropriated shall be expended by the University  
10 of Hawaii Hawaii natural energy institute for the purposes of  
11 section 304A-C, Hawaii revised statutes.

12 PART III

13 SECTION 6. Chapter 211F, Hawaii Revised Statutes, is  
14 amended by adding a new section to be appropriately designated  
15 and to read as follows:

16 "§211F-A Biofuels development revolving loan fund. (a)

17 There shall be established the biofuels development revolving  
18 loan fund, into which shall be deposited:

19 (1) Appropriations made by the legislature to the fund;

20 (2) Any gifts, donations, or contributions from public or  
21 private sources;



1       (3) All interest earned on or accrued to moneys deposited  
2           in the fund; and

3       (4) Any other moneys made available to the fund from other  
4           sources.

5       (b) Moneys in the fund shall be used to provide low  
6       interest or no interest loans for seed capital for, or to match  
7       venture capital investments in, private sector and federal  
8       projects for research, development, testing, and implementation  
9       of the Hawaii biofuels program under section 196-A.

10       (c) The fund shall be administered by the Hawaii strategic  
11       development corporation, and funding decisions shall be made  
12       based upon technical advice and recommendations provided by the  
13       Hawaii natural energy institute and its advisory council."

14       SECTION 7. Chapter 196, Hawaii Revised Statutes, is  
15       amended by adding a new section to be appropriately designated  
16       and to read as follows:

17       "§196-A Hawaii biofuels program. There is established,  
18       within the department of business, economic development, and  
19       tourism, a Hawaii renewable biofuels program to manage the  
20       State's transition to energy self-sufficiency based in part on  
21       biofuels for power generation and transportation fuels. The



1 program shall design, implement, and administer activities that  
2 include:  
3       (1) Strategic partnerships for the research, development,  
4       testing, and deployment of renewable biofuels  
5       technologies and production of biomass crops;  
6       (2) Evaluation of Hawaii's potential to rely on biofuels  
7       as a significant renewable energy resource;  
8       (3) Biofuels demonstration projects, including  
9       infrastructure for production, storage, and  
10       transportation of biofuels;  
11       (4) Promotion of Hawaii's renewable biofuels resources to  
12       potential partners and investors for development in  
13       Hawaii as well as for export purposes;  
14       (5) A plan to implement commercially viable biofuels  
15       development from year 2007 to 2010; and  
16       (6) A mechanism to evaluate the biofuels development  
17       plan."

18       SECTION 8. There is appropriated out of the general  
19 revenues of the State of Hawaii the sum of \$1 for fiscal year  
20 2007-2008 and the sum of \$1 for fiscal year 2008-2009 to be  
21 deposited into the biofuels development revolving loan fund  
22 pursuant to section 211F-A, Hawaii revised statutes.



1 SECTION 9. There is appropriated out of the biofuels  
2 development revolving loan fund the sum of \$1 or so much thereof  
3 as may be necessary for fiscal year 2007-2008 and the same sum  
4 or so much thereof as may be necessary for fiscal year 2008-2009  
5 to provide loans for the purposes of the biofuels development  
6 revolving loan fund established pursuant to section 211F-A,  
7 Hawaii revised statutes.

8 The sums appropriated shall be expended by the Hawaii  
9 strategic development corporation for the purposes of section  
10 211F-A, Hawaii revised statutes.

11 PART IV

12 SECTION 10. (a) The department of business, economic  
13 development, and tourism shall develop and prepare a bioenergy  
14 master plan. The bioenergy master plan shall address but is not  
15 limited to the following issues:

- 16 (1) Specific objectives, milestones, and timelines;
- 17 (2) Water resources;
- 18 (3) Land resources;
- 19 (4) Distribution infrastructure for both marine and land;
- 20 (5) Labor resources and issues;
- 21 (6) Technology to develop bioenergy feedstock and  
22 biofuels;



- 1 (7) Permitting issues;
- 2 (8) Financial incentives and barriers and other funding
- 3 issues;
- 4 (9) Business partnering;
- 5 (10) Policy requirements necessary for implementation of
- 6 the master plan; and
- 7 (11) Identification and analysis of the impacts of
- 8 transitioning to a bioenergy economy.
- 9 (b) The department of business, economic development, and
- 10 tourism shall submit an interim report of its progress,
- 11 including any proposed legislation to facilitate the
- 12 finalization of a master plan or support preliminary findings to
- 13 accelerate the implementation of a bioenergy future for Hawaii,
- 14 to the legislature no later than twenty days prior to the
- 15 convening of the regular session of 2008. The department shall
- 16 submit a final report, including the bioenergy master plan, as
- 17 well as any proposed legislation, to the legislature no later
- 18 than twenty days prior to the convening of the regular session
- 19 of 2009.

20 SECTION 11. There is appropriated out of the general  
 21 revenues of the State of Hawaii the sum of \$1 or so much thereof  
 22 as may be necessary for fiscal year 2007-2008 and the same sum

1 or so much thereof as may be necessary for fiscal year 2008-2009  
2 for the development and preparation of a bioenergy master plan  
3 that will set the course for the coordination and implementation  
4 of policies and procedures to develop a bioenergy industry in  
5 the state.

6 The sums appropriated shall be expended by the department  
7 of business, economic development, and tourism for the purposes  
8 of this part.

9 PART V

10 SECTION 12. In codifying the new sections added by  
11 sections 2, 6, and 7 of this Act, the revisor of statutes shall  
12 substitute appropriate section numbers for the letters used in  
13 designating the new sections in this Act.

14 SECTION 13. New statutory material is underscored.

15 SECTION 14. This Act shall take effect on July 1, 2007;  
16 provided that section 304A-C, Hawaii Revised Statutes, shall be  
17 repealed on June 30, 2012.



**Report Title:**

Hawaii Natural Energy Institute; Biofuels; Bioenergy

**Description:**

Statutorily establishes the Hawaii Natural Energy Institute of the University of Hawaii and creates the Energy Systems Development Special Fund for the development of renewable energy and energy efficient technologies. Creates the Biofuels Development Revolving Loan Fund, which will be administered by the Hawaii Strategic Development Corporation, and the Hawaii Biofuels Program within DBEDT, to manage the State's transition to energy self-sufficiency based in part on biofuels for power generation and transportation fuels. Requires DBEDT to develop and prepare a bioenergy master plan that sets the course for the coordination and implementation of policies and procedures to develop a bioenergy industry in Hawaii. Appropriates funds.  
(HB1003 HD2)

