
A BILL FOR AN ACT

RELATING TO ENERGY.

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

PART I

1
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



1 development of hydrogen as a renewable energy source. While
2 progress has been made, there is still much to be done.

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

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

20 In response to the desire to diversify Hawaii's energy
21 system, a biofuels summit and bioenergy workshop was held in



1 2006 to explore the potential for a domestic bioenergy and
2 biofuels future. Both meetings resulted in the acknowledgement
3 that the initiation of a bioenergy industry in Hawaii must first
4 address a diverse and very complex set of issues that involves
5 many public and private stakeholders.

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

15 The purpose of this Act is two-fold:

16 (1) Part II statutorily establishes the Hawaii natural
17 energy institute of the University of Hawaii at Manoa,
18 defines its mission, and creates the energy systems
19 development special fund for the development of
20 renewable energy and end-use energy-efficient
21 technologies, including those that ameliorate peak



1 demand problems. The roles of the institute will
2 include:

3 (A) Managing the portfolio of renewable energy and
4 energy efficiency technology programs to ensure
5 an integrated approach;

6 (B) Using its technical expertise to advise state and
7 federal agencies on the maximization of funding
8 sources and encouragement of private industry
9 investments; and

10 (C) Evaluating Hawaii's efforts toward energy self-
11 sufficiency; and

12 (2) Part III tasks the department of business, economic
13 development, and tourism with the development and
14 preparation of a bioenergy master plan that will set
15 the course for the coordination and implementation of
16 policies and procedures to develop a bioenergy
17 industry in Hawaii.

18 **PART II**

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



1 " . Hawaii Natural Energy Institute
2 **§304A-A Hawaii natural energy institute, structure,**
3 **function.** (a) There is established the Hawaii natural energy
4 institute at the University of Hawaii. The institute shall be
5 administered by a director to be appointed by the board of
6 regents upon recommendation by the president. The director of
7 the institute shall appoint the professional members of the
8 staff and other employees. The president and board of regents
9 shall have the same powers over the institute and its staff as
10 over the university and its facilities.

11 (b) The director of the institute shall coordinate the
12 institute's work with the energy resources coordinator in
13 carrying out duties pursuant to section 196-4 in the area of
14 research and development of renewable energy sources.

15 (c) The institute shall:

- 16 (1) Develop renewable sources of energy for power
17 generation and transportation fuels by working in
18 coordination with state agencies, federal agencies,
19 and private entities;
- 20 (2) Conduct research and development of renewable sources
21 of energy;



- 1 (3) Demonstrate and deploy efficient energy end-use
2 technologies, including those that address peak
3 electric demand issues;
- 4 (4) Aggressively seek matching funding from federal
5 agencies and private entities for its research and
6 development and demonstration activities; and
- 7 (5) Report annually to the legislature, no later than
8 twenty days prior to the convening of each regular
9 session, on its activities, expenditures, contracts
10 developed, advances in technology, its work in
11 coordination with state agencies and programs, and
12 recommendations for proposed legislation.

13 **§304A-B Advisory council to Hawaii natural energy**
14 **institute.** (a) The institute shall establish an advisory
15 council of seven members, appointed by the president from a list
16 of nominees submitted by the director of the institute and the
17 energy resources coordinator of the department of business,
18 economic development, and tourism. The members of the advisory
19 council shall be from the general public, the energy industry,
20 technology providers, state agencies whose primary functions
21 relate to energy planning and policy analyses, and environmental



1 groups, or other relevant stakeholder representatives as
2 recommended by the director of the institute and the energy
3 resources coordinator. Members shall be selected on the basis
4 of their proven expertise and interest in the field of renewable
5 energy. The director of the institute and the energy resources
6 coordinator shall serve as ex officio nonvoting members of the
7 advisory council.

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

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

15 **§304A-C Energy systems development special fund. (a)**
16 There is established the energy systems development special fund
17 for the purpose of developing an integrated approach and
18 portfolio management of renewable energy and energy efficiency
19 technology projects that will reduce Hawaii's dependence on
20 fossil fuel and imported oil and other imported energy resources
21 and move Hawaii toward energy self-sufficiency.



- 1 (b) The special fund shall be funded by:
- 2 (1) Appropriations from the legislature; and
- 3 (2) Investment earnings, gifts, donations, or other income
- 4 received by the institute.
- 5 (c) The Hawaii natural energy institute shall administer
- 6 the special fund and may expend revenues from the special fund
- 7 for the following activities:
- 8 (1) Obtaining matching funds from federal and private
- 9 sources for research, development, and demonstration
- 10 of renewable energy sources;
- 11 (2) Awarding contracts or grants to develop and deploy
- 12 technologies that will reduce Hawaii's dependence on
- 13 imported energy resources and imported oil. Projects
- 14 may be commissioned that:
- 15 (A) Balance the risk, benefits, and time horizons of
- 16 the investment to ensure tangible benefits to the
- 17 Hawaii consumer, with priority given to short-
- 18 term technology development;
- 19 (B) Emphasize innovative and renewable energy supply
- 20 and energy efficient end use technologies



- 1 focusing on environmental attributes,
2 reliability, and affordability;
- 3 (C) Enhance transmission and distribution
4 capabilities of renewable energy supply for
5 electricity;
- 6 (D) Enhance reliability and storage capabilities of
7 renewable energy for electricity;
- 8 (E) Ensure that research, deployment, and
9 demonstration efforts build on existing programs
10 and resources and are not duplicated;
- 11 (F) Address critical technical and scientific
12 barriers to achieving energy self-sufficiency by
13 reducing dependence on imported oil and imported
14 energy resources;
- 15 (G) Ensure that technology used and developed for
16 renewable energy production and distribution will
17 be commercially viable; and
- 18 (H) Give priority to resources that are indigenous
19 and unique to Hawaii; and
- 20 (3) Managing the portfolio of projects commissioned under
21 this subsection.



1 **§304A-D Periodic evaluation.** (a) Evaluations shall be
2 conducted of the projects and activities funded by the energy
3 systems development special fund. The evaluation shall assess,
4 using objective criteria, the degree to which the projects and
5 activities comport with and achieve stated objectives of the
6 energy systems development special fund pursuant to section
7 304A-C.

8 (b) The initial evaluation shall be conducted at the end
9 of the third year after the effective date of this Act, and
10 every three years thereafter by a two-person panel of
11 independent energy and environmental technical experts who shall
12 be appointed by the director of business, economic development,
13 and tourism and who are not affiliated with the Hawaii natural
14 energy institute. The panel shall submit a report of the
15 results of each evaluation to the legislature no later than
16 twenty days prior to the convening of the following regular
17 session. The institute shall cooperate and provide support to
18 the evaluation panel.

19 **§304A-E Plan of action.** Prior to the initiation of any
20 projects or activities authorized by section 304A-C, the Hawaii
21 natural energy institute shall develop a plan of action in



1 coordination with the state energy resources coordinator with
2 the intent of promoting effective prioritization and focusing of
3 efforts consistent with the State's energy programs."

4 SECTION 3. Act 235, Session Laws of Hawaii 1974, is
5 repealed.

6 **PART III**

7 SECTION 4. (a) The department of business, economic
8 development, and tourism shall develop and prepare a bioenergy
9 master plan in consultation with representatives of the relevant
10 stakeholders. The primary objective of the bioenergy master
11 plan shall develop a Hawaii renewable biofuels program to manage
12 the State's transition to energy self-sufficiency based in part
13 on biofuels for power generation and transportation. The
14 bioenergy master plan shall address the following outcomes:

- 15 (1) Strategic partnerships for the research, development,
16 testing, and deployment of renewable biofuels
17 technologies and production of biomass crops;
18 (2) Evaluation of Hawaii's potential to rely on biofuels
19 as a significant renewable energy resource;



- 1 (3) Biofuels demonstration projects, including
- 2 infrastructure for production, storage, and
- 3 transportation of biofuels;
- 4 (4) Promotion of Hawaii's renewable biofuels resources to
- 5 potential partners and investors for development in
- 6 Hawaii as well as for export purposes; and
- 7 (5) A plan or roadmap to implement commercially viable
- 8 biofuels development.
- 9 (b) The bioenergy master plan shall address the following
- 10 issues:
- 11 (1) Specific objectives and timelines;
- 12 (2) Water resources;
- 13 (3) Land resources;
- 14 (4) Distribution infrastructure for both marine and land;
- 15 (5) Labor resources and issues;
- 16 (6) Technology to develop bioenergy feedstock and
- 17 biofuels;
- 18 (7) Permitting;
- 19 (8) Financial incentives and barriers and other funding;
- 20 (9) Business partnering;



1 (10) Policy requirements necessary for implementation of
2 the master plan; and

3 (11) Identification and analysis of the impacts of
4 transitioning to a bioenergy economy while considering
5 applicable environmental concerns.

6 (c) The department of business, economic development, and
7 tourism shall submit an interim report of its progress,
8 including any proposed legislation to facilitate the
9 finalization of a master plan or support preliminary findings to
10 accelerate the implementation of a bioenergy future for Hawaii,
11 to the legislature no later than twenty days prior to the
12 convening of the regular session of 2008. The department shall
13 submit a final report, including the bioenergy master plan, as
14 well as any proposed legislation, to the legislature no later
15 than twenty days prior to the convening of the regular session
16 of 2009.

17 SECTION 5. There is appropriated out of the general
18 revenues of the State of Hawaii the sum of \$300,000 or so much
19 thereof as may be necessary for fiscal year 2007-2008 for the
20 development and preparation of a bioenergy master plan that will
21 set the course for the coordination and implementation of



1 policies and procedures to develop a bioenergy industry in the
2 State.

3 The sums appropriated shall be expended by the department
4 of business, economic development, and tourism for the purposes
5 of this part.

6 **PART IV**

7 SECTION 6. In codifying the new sections added by section
8 2 of this Act, the revisor of statutes shall substitute
9 appropriate section numbers for the letters used in designating
10 the new sections in this Act.

11 SECTION 7. New statutory material is underscored.

12 SECTION 8. This Act shall take effect on July 1, 2007;
13 provided that sections 304A-C, 304A-D, and 304A-E, Hawaii
14 Revised Statutes, shall be repealed on June 30, 2012.



H.B. NO. 1003
H.D. 3
S.D. 2
C.D. 1

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. Requires periodic evaluation of projects and activities funded by special fund. Requires department of business, economic development, and tourism 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. (CD1)

