
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
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 the desire to diversify Hawaii's energy
19 system, a biofuels summit and bioenergy workshop was held in
20 2006 to explore the potential for a domestic bioenergy and
21 biofuels future. Both meetings resulted in the acknowledgement
22 that the initiation of a bioenergy industry in Hawaii must first



1 address a diverse and very complex set of issues that involves
2 many 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 an effective strategy for the development of a bioenergy
11 industry 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 later 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.



1 **§304A-B Advisory council to Hawaii natural energy**
2 **institute.** (a) The institute shall establish an advisory
3 council of seven members, appointed by the president from a list
4 of nominees submitted by the Hawaii energy policy forum and the
5 technology officer of the department of business, economic
6 development, and tourism. The members of the advisory council
7 shall be from the general public, organizations representing the
8 utility industry, technology providers, and environmental
9 groups. Members shall be selected on the basis of their proven
10 expertise and interest in the field of renewable energy. The
11 director of the institute and the energy resources coordinator
12 shall serve as ex officio nonvoting members of the advisory
13 council.

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

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

21 **§304A-C Energy systems development special fund.** (a)
22 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; and

10 (3) per cent from the environmental response fund.

11 (c) The institute may use the special fund for the
12 following activities:

13 (1) Obtaining matching funds from federal and private
14 sources for research and development of renewable
15 energy sources;

16 (2) Awarding contracts or grants to develop and deploy
17 technologies that will reduce Hawaii's dependence on
18 imported energy resources and imported oil. Projects
19 may be commissioned that:

20 (A) Balance the risk, benefits, and time horizons of
21 the investment to ensure tangible benefits to the



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



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

3 (4) Conducting evaluations of projects and activities
4 funded by the special fund, and assessing, using
5 objective criteria, the degree to which the projects
6 and activities comport with and achieve stated
7 objectives. An evaluation shall be conducted at the
8 end of the third year after the effective date of this
9 Act, and thereafter every three years by a two-person
10 panel of independent energy and environmental
11 technical experts who shall be appointed by the
12 director of the department of business, economic
13 development, and tourism and who are not affiliated
14 with the Hawaii natural energy institute. The panel
15 shall report the results of its evaluation to the
16 legislature no later than twenty days prior to the
17 convening of the following regular 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 energy systems development special fund established the
8 purposes of pursuant to section 304A-C.

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

12 **PART III**

13 SECTION 6. Chapter 196, Hawaii Revised Statutes, is
14 amended by adding a new section to be appropriately designated
15 and to read as follows:

16 "§196-A Hawaii biofuels program. There is established,
17 within the department of business, economic development, and
18 tourism, a Hawaii renewable biofuels program to manage the
19 State's transition to energy self-sufficiency based in part on
20 biofuels for power generation and transportation fuels. The
21 program shall design, implement, and administer activities that
22 include:



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

16 SECTION 7. Chapter 211F, Hawaii Revised Statutes, is
 17 amended by adding a new section to be appropriately designated
 18 and to read as follows:

19 "§211F-A Biofuels development revolving loan fund. (a)
 20 There shall be established the biofuels development revolving
 21 loan fund, into which shall be deposited:

- 22 (1) Appropriations made by the legislature to the fund;



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

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

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

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

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

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

21 SECTION 9. There is appropriated out of the biofuels
22 development revolving loan fund the sum of \$1 or so much thereof



1 as may be necessary for fiscal year 2007-2008 and the same sum
2 or so much thereof as may be necessary for fiscal year 2008-2009
3 to provide loans for the biofuels development revolving loan
4 fund established pursuant to section 211F-A, Hawaii Revised
5 Statutes.

6 The sums appropriated shall be expended by the Hawaii
7 strategic development corporation for the purposes of section
8 211F-A, Hawaii Revised Statutes.

9 **PART IV**

10 SECTION 10. (a) The department of business, economic
11 development, and tourism shall develop and prepare a bioenergy
12 master plan in consultation with representatives of the diverse
13 stakeholder interests. The bioenergy master plan shall address
14 but is not limited to the following issues:

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



1 (8) Financial incentives and barriers and other funding;

2 (9) Business partnering;

3 (10) Policy requirements necessary for implementation of
4 the master plan; and

5 (11) Identification and analysis of the impacts of
6 transitioning to a bioenergy economy.

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

18 SECTION 11. There is appropriated out of the general
19 revenues of the State of Hawaii the sum of \$1 or so much thereof
20 as may be necessary for fiscal year 2007-2008 and the same sum
21 or so much thereof as may be necessary for fiscal year 2008-2009
22 for the development and preparation of a bioenergy master plan



1 that will set the course for the coordination and implementation
2 of policies and procedures to develop a bioenergy industry in
3 the State.

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

7 **PART V**

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

12 SECTION 13. New statutory material is underscored.

13 SECTION 14. This Act shall take effect on July 1, 2020;
14 provided that section 304A-C, Hawaii Revised Statutes, shall be
15 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 department of business, economic development, and tourism, to manage the State's transition to energy self-sufficiency based in part on biofuels for power generation and transportation fuels. 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.
(SD1)

