

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 working in
6 coordination with state agencies, federal agencies,
7 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, its work in
20 coordination with 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, the energy industry,
8 technology providers, state agencies whose primary functions
9 relate to energy planning and policy analyses, and environmental
10 groups, or other relevant stakeholder representatives as
11 recommended by the director of the institute and the energy
12 resources coordinator. Members shall be selected on the basis
13 of their proven expertise and interest in the field of renewable
14 energy. The director of the institute and the energy resources
15 coordinator shall serve as ex officio nonvoting members of the
16 advisory council.

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

20 (c) The advisory council may advise the director on
21 matters of strategic planning, goals and objectives, significant



1 initiatives of the institute, and other matters as determined by
2 the director.

3 **§304A-C Energy systems development special fund. (a)**

4 There is established the energy systems development special fund
5 for the purpose of developing an integrated approach and
6 portfolio management of renewable energy and energy efficiency
7 technology projects that will reduce Hawaii's dependence on
8 fossil fuel and imported oil and other imported energy resources
9 and move Hawaii toward energy self-sufficiency.

10 (b) The special fund shall be funded by:

11 (1) Appropriations from the legislature;

12 (2) Investment earnings, gifts, donations, or other income
13 received by the institute; and

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

15 (c) The Hawaii natural energy institute shall administer
16 the special fund and may expend revenues from the special fund
17 for the following activities:

18 (1) Obtaining matching funds from federal and private
19 sources for research and development of renewable
20 energy sources;

21 (2) Awarding contracts or grants to develop and deploy
22 technologies that will reduce Hawaii's dependence on



1 imported energy resources and imported oil. Projects
2 may be commissioned that:

3 (A) Balance the risk, benefits, and time horizons of
4 the investment to ensure tangible benefits to the
5 Hawaii consumer, with priority given to short
6 term technology development;

7 (B) Emphasize innovative and renewable energy supply
8 and energy efficient end use technologies
9 focusing on environmental attributes,
10 reliability, and affordability;

11 (C) Enhance transmission and distribution
12 capabilities of renewable energy supply;

13 (D) Enhance reliability and storage capabilities of
14 renewable energy;

15 (E) Ensure that research, deployment, and
16 demonstration efforts build on existing programs
17 and resources and are not duplicated;

18 (F) Address critical technical and scientific
19 barriers to achieving energy self-sufficiency by
20 reducing dependence on imported oil and imported
21 energy resources;



1 (G) Ensure that technology used and developed for
2 renewable energy production and distribution will
3 be commercially viable; and

4 (H) Give priority to resources that are indigenous
5 and unique to Hawaii; and

6 (3) Managing the portfolio of projects commissioned under
7 this subsection.

8 **§304A-D Periodic evaluation.** (a) Evaluations shall be
9 conducted of the projects and activities funded by the energy
10 systems development special fund. The evaluation shall assess,
11 using objective criteria, the degree to which the projects and
12 activities comport with and achieve stated objectives of the
13 energy systems development special fund pursuant to section
14 304A-C.

15 (b) The initial evaluation shall be conducted at the end
16 of the third year after the effective date of this Act, and
17 every three years thereafter by a two-person panel of
18 independent energy and environmental technical experts who shall
19 be appointed by the director of business, economic development,
20 and tourism and who are not affiliated with the Hawaii natural
21 energy institute. The panel shall submit a report of the
22 results of each evaluation to the legislature no later than



1 twenty days prior to the convening of the following regular
2 session.

3 **§304A-E Plan of action.** Prior to the initiation of any
4 projects or activities authorized by section 304A-C, the Hawaii
5 natural energy institute shall develop a plan of action in
6 coordination with the state energy resources coordinator with
7 the intent of promoting effective prioritization and focusing of
8 efforts consistent with the State's energy programs."

9 SECTION 3. Act 235, Session Laws of Hawaii 1974, is
10 repealed.

11 SECTION 4. There is appropriated out of the general
12 revenues of the State of Hawaii the sum of \$1 for fiscal year
13 2007-2008 and the same sum for fiscal year 2008-2009 to be
14 deposited into the energy systems development special fund
15 established pursuant to section 304A-C, Hawaii Revised Statutes.

16 SECTION 5. There is appropriated out of the energy systems
17 development special fund the sum of \$1 or so much thereof as may
18 be necessary for fiscal year 2007-2008 and the same sum or so
19 much thereof as may be necessary for fiscal year 2008-2009 for
20 the energy systems development special fund established pursuant
21 to section 304A-C, Hawaii Revised Statutes.



1 The sums appropriated shall be expended by the University
2 of Hawaii natural energy institute for purposes specified in the
3 energy systems development special fund established pursuant to
4 section 304A-C, Hawaii Revised Statutes.

5 PART III

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

9 "§196-A Hawaii biofuels program. There is established,
10 within the department of business, economic development, and
11 tourism, a Hawaii renewable biofuels program to manage the
12 State's transition to energy self-sufficiency based in part on
13 biofuels for power generation and transportation fuels. The
14 program shall design, implement, and administer activities that
15 include:

- 16 (1) Strategic partnerships for the research, development,
17 testing, and deployment of renewable biofuels
18 technologies and production of biomass crops;
- 19 (2) Evaluation of Hawaii's potential to rely on biofuels
20 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;
- 7 (5) A plan to implement commercially viable biofuels
- 8 development from year 2007 to 2010; and
- 9 (6) A mechanism to evaluate the biofuels development
- 10 plan."

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

14 "§211F-A Biofuels development revolving loan fund. (a)

15 There shall be established the biofuels development revolving
 16 loan fund, into which shall be deposited:

- 17 (1) Appropriations made by the legislature to the fund;
- 18 (2) Any gifts, donations, or contributions from public or
- 19 private sources;
- 20 (3) All interest earned on or accrued to moneys deposited
- 21 into the fund; and



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

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

8 (c) The fund shall be administered by the Hawaii strategic
9 development corporation, and expenditure of money for loans or
10 other funding decisions shall be made by the corporation based
11 upon technical advice and recommendations provided by the Hawaii
12 natural energy institute and its advisory council."

13 SECTION 8. There is appropriated out of the general
14 revenues of the State of Hawaii the sum of \$1 for fiscal year
15 2007-2008 and the sum of \$1 for fiscal year 2008-2009 to be
16 deposited into the biofuels development revolving loan fund
17 established pursuant to section 211F-A, Hawaii Revised Statutes.

18 SECTION 9. There is appropriated out of the biofuels
19 development revolving loan fund 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 to provide loans or other funding authorized by the biofuels



1 development revolving loan fund established pursuant to section
2 211F-A, Hawaii Revised Statutes.

3 The sums appropriated shall be expended by the Hawaii
4 strategic development corporation for the purposes of section
5 211F-A, Hawaii Revised Statutes.

6 PART IV

7 SECTION 10. (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 bioenergy master plan shall address the
11 following issues:

- 12 (1) Specific objectives and timelines;
- 13 (2) Water resources;
- 14 (3) Land resources;
- 15 (4) Distribution infrastructure for both marine and land;
- 16 (5) Labor resources and issues;
- 17 (6) Technology to develop bioenergy feedstock and
18 biofuels;
- 19 (7) Permitting;
- 20 (8) Financial incentives and barriers and other funding;
- 21 (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.

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

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



1 of policies and procedures to develop a bioenergy industry in
2 the 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 V

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

11 SECTION 13. New statutory material is underscored.

12 SECTION 14. This Act shall take effect on July 1, 2020;
13 provided that sections 304A-C, 304A-D, and 304A-E, Hawaii
14 Revised Statutes, shall be 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.
(SD2)

