
A BILL FOR AN ACT

RELATING TO HAWAII'S CLEAN ENERGY INITIATIVE - ELECTRIC
GENERATION AND DELIVERY.

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

1 PART I

2 SECTION 1. Attaining independence from our detrimental
3 reliance on fossil fuels has been a long-standing objective for
4 the State.

5 Hawaii is the most petroleum dependent State for its energy
6 needs. It pays the highest electricity prices in the United
7 States, and its gasoline costs are among the highest in the
8 country. Fuel surcharges that pass the increases in fuel costs
9 to consumers have significantly increased the cost of over 80
10 percent of the goods and services sold in Hawaii. Household
11 fuels and utilities costs rose 36.4 percent, from the previous
12 year, as reflected in the Honolulu Consumer Price Index during
13 the second quarter of 2008. Hawaii's energy costs approach 11
14 percent of its Gross Domestic Product (GDP), whereas in most
15 states energy costs are 4 percent of GDP. Between 2005 and
16 2008, state government consumption of electricity increased 3.9
17 percent, but expenditures increased 56.8 percent.



1 Reducing our oil dependence and the consequent price
2 volatility and attaining a measure of energy security is
3 critical. More than 96 percent of petroleum in Hawaii now comes
4 from foreign sources. Clean energy from indigenous renewable
5 resources, has the potential to provide an estimated 150 percent
6 of current installed electrical capacity.

7 On January 28, 2008, the signing of a Memorandum of
8 Understanding between the State of Hawaii and the United States
9 Department of Energy (USDOE) launched the Hawaii Clean Energy
10 Initiative (HCEI). This initiative and long-term partnership
11 between Hawaii and USDOE is aimed at accelerating the use and
12 development of energy efficiency and renewable energy
13 technologies; allowing Hawaii to serve as a model and
14 demonstration for the United States and other island
15 communities; and develop a national partnership to accelerate
16 system transformation, whereby the following goals are attained:

- 17 (1) Achieve a 70 percent clean energy economy for Hawaii
18 within a generation.
- 19 (2) Increase Hawaii's energy security.
- 20 (3) Capture economic benefits of clean energy for all levels
21 of society.
- 22 (4) Contribute to greenhouse gas reduction.



1 (5) Foster and demonstrate innovation.

2 (6) Build the workforce of the future.

3 (7) Serve as a national model.

4 The purpose of this Act is to provide a first step in
5 aligning Hawaii's energy policy laws with the State's energy
6 goals. For Hawaii to realize energy independence and economic
7 stability, the transformation of its energy system must
8 encompass changes to:

9 (1) Hawaii's policy or regulatory framework;

10 (2) System-level technology development and integration;

11 (3) Financing or capital investment; and

12 (4) Institutional system planning.

13 To enable energy efficiency and renewable energy resources to
14 meet 70 percent of Hawaii's energy demand by 2030, the Hawaii
15 Clean Energy Initiative set goals for energy efficiency;
16 renewable and indigenous electricity production; energy delivery
17 and improvements to the electrical grid; and diversification of
18 energy sources for transportation. The initiatives to achieve
19 these goals were developed by the USDOE; the department of
20 business, economic development, and tourism; and members of the
21 five Hawaii clean energy initiative working groups during 2008.
22 This effort presents a range of measures—some proven elsewhere,



1 some innovative—to reach aggressive energy goals while balancing
2 the interests of various stakeholders.

3 PART II

4 RENEWABLE PORTFOLIO STANDARDS

5 SECTION 2. Section 269-91, Hawaii Revised Statutes, is
6 amended to read as follows:

7 "§269-91 [+]Definitions[+] For the purposes of this
8 [+]part[+]:

9 "Biofuels" means liquid or gaseous fuels produced from
10 organic sources such as biomass crops, agricultural residues and
11 oil crops, such as palm oil, canola oil, soybean oil, waste
12 cooking oil, grease, and food wastes, animal residues and
13 wastes, and sewage and landfill wastes.

14 "Cost-effective" means the ability to produce or purchase
15 electric energy or firm capacity, or both, from renewable energy
16 resources at or below avoided costs consistent with the
17 methodology set by the public utilities commission in accordance
18 with section 269-27.2.

19 "Electric utility company" means a public utility as
20 defined under section 269-1, for the production, conveyance,
21 transmission, delivery, or furnishing of power.

22 "Renewable electrical energy" means:



- 1 (1) Electrical energy generated using renewable energy as
2 the source;
- 3 (2) Electrical energy savings brought about by the use of
4 renewable displacement or off-set technologies,
5 including solar water heating, sea-water air-
6 conditioning district cooling systems, solar air-
7 conditioning, and customer-sited, grid-connected
8 renewable energy systems[+], provided that such
9 electrical energy savings will not count towards the
10 renewable portfolio standards beginning in 2015; or
- 11 (3) Electrical energy savings brought about by the use of
12 energy efficiency technologies, including heat pump
13 water heating, ice storage, ratepayer-funded energy
14 efficiency programs, and use of rejected heat from co-
15 generation and combined heat and power systems,
16 excluding fossil-fueled qualifying facilities that
17 sell electricity to electric utility companies and
18 central station power projects[-], provided that such
19 electrical energy savings will not count towards the
20 renewable portfolio standards beginning in 2015.

21 "Renewable energy" means energy generated or produced
22 utilizing the following sources:



- 1 (1) Wind;
- 2 (2) The sun;
- 3 (3) Falling water;
- 4 (4) Biogas, including landfill and sewage-based digester
- 5 gas;
- 6 (5) Geothermal;
- 7 (6) Ocean water, currents, and waves;
- 8 (7) Biomass, including biomass crops, agricultural and
- 9 animal residues and wastes, and [~~municipal~~] solid
- 10 waste;
- 11 (8) Biofuels; and
- 12 (9) Hydrogen produced from renewable energy sources.

13 "Renewable portfolio standard" means the percentage of
14 electrical energy sales that is represented by renewable
15 electrical energy."

16 SECTION 3. Section 269-92, Hawaii Revised Statutes, is
17 amended by amending subsection (a) and (b) to read as follows:

18 "(a) Each electric utility company that sells electricity
19 for consumption in the State shall establish a renewable
20 portfolio standard of:

- 21 (1) Ten per cent of its net electricity sales by December
- 22 31, 2010;



1 (2) Fifteen per cent of its net electricity sales by
2 December 31, 2025; [~~and~~]

3 (3) [~~Twenty~~] Twenty-five per cent of its net electricity
4 sales by December 31, 2020[~~-~~]; and

5 (4) Forty per cent of its net electricity sales by
6 December 31, 2030.

7 (b) The public utilities commission may establish
8 standards for each utility that prescribe what portion of the
9 renewable portfolio standards shall be met by specific types of
10 renewable electrical energy resources; provided that:

11 (1) Before 2015, at least fifty per cent of the
12 renewable portfolio standards shall be met by
13 electrical energy generated using renewable
14 energy as the source[~~-~~], and beginning 2015, the
15 entire renewable portfolio standards shall be met
16 by electrical generation from renewable energy
17 sources;

18 (2) Where electrical energy is generated or displaced
19 by a combination of renewable and nonrenewable
20 means, the proportion attributable to the
21 renewable means shall be credited as renewable
22 energy; [~~and~~]



1 (3) Where fossil and renewable fuels are co-fired in
 2 the same generating unit, the unit shall be
 3 considered to generate renewable electrical
 4 energy (electricity) in direct proportion to the
 5 percentage of the total heat input value
 6 represented by the heat input value of the
 7 renewable fuels[-]; and

8 (4) The public utilities commission shall not approve
 9 applications to build new additional fossil-based
 10 electric generation units with rated capacity
 11 greater than two megawatts."

12 SECTION 4. Section 269-95, Hawaii Revised Statutes, is
 13 amended to read as follows:

14 "**§269-95 Renewable portfolio standards study.** The public
 15 utilities commission shall:

16 (1) By December 31, 2007, develop and implement a utility
 17 ratemaking structure, which may include performance-
 18 based ratemaking, to provide incentives that encourage
 19 Hawaii's electric utility companies to use cost-
 20 effective renewable energy resources found in Hawaii
 21 to meet the renewable portfolio standards established
 22 in section 269-92, while allowing for deviation from



1 the standards in the event that the standards cannot
2 be met in a cost-effective manner or as a result of
3 events or circumstances, such as described in section
4 269-92(d), beyond the control of the utility that
5 could not have been reasonably anticipated or
6 ameliorated;

7 (2) Gather, review, and analyze empirical data to
8 determine the extent to which any proposed utility
9 ratemaking structure would impact electric utility
10 companies' profit margins and to ensure that the
11 electric utility companies' opportunity to earn a fair
12 rate of return is not diminished; profit margins do
13 not decrease as a result of the implementation of the
14 proposed ratemaking structure;

15 (3) Using funds from the public utilities special fund,
16 contract with the Hawaii natural energy institute of
17 the University of Hawaii to conduct independent
18 studies to be reviewed by a panel of experts from
19 entities such as the United States Department of
20 Energy, National Renewable Energy Laboratory, Electric
21 Power Research Institute, Hawaii electric utility
22 companies, environmental groups, and other similar



1 institutions with the required expertise. These
2 studies shall include findings and recommendations
3 regarding:

4 (A) The capability of Hawaii's electric utility
5 companies to achieve renewable portfolio
6 standards in a cost-effective manner and shall
7 assess factors such as the impact on consumer
8 rates, utility system reliability and stability,
9 costs and availability of appropriate renewable
10 energy resources and technologies, permitting
11 approvals, effects on the economy, balance of
12 trade, culture, community, environment, land and
13 water, climate change policies, demographics, and
14 other factors deemed appropriate by the
15 commission; and

16 (B) Projected renewable portfolio standards to be set
17 five and ten years beyond the then current
18 standards;

19 (4) ~~[Revise]~~ Evaluate the renewable portfolio standards
20 every five years beginning in 2013, and may revise the
21 standards based on the best information available at
22 the time ~~[if the results of the studies conflict with]~~



1 circuit-specific analysis to determine how the limit can be
2 increased or mitigated for those circuits where the
3 interconnection requests are approaching the specified limit."

4 SECTION 6. Section 269-102, Hawaii Revised Statutes, is
5 amended by amending subsection (b) to read as follows:

6 "(b) Each net energy metering contract or tariff shall be
7 identical, with respect to rate structure, to the contract or
8 tariff to which the same customer would be assigned if the
9 customer was not an eligible customer-generator[-], provided
10 that the public utilities commission may, by rule or order,
11 allow some electric utility companies to assign eligible
12 customer-generators to other applicable rates, tariffs, or
13 contracts determined reasonable by the public utilities
14 commission to encourage the increased use and development of
15 renewable energy systems in Hawaii. The charges for all retail
16 rate components for eligible customer-generators shall be based
17 exclusively on the eligible customer-generator's net kilowatt-
18 hour consumption over a monthly billing period. Any new or
19 additional demand charge, standby charge, customer charge,
20 minimum monthly charge, interconnection charge, or other charge
21 that would increase an eligible customer-generator's costs
22 beyond those of other customers in the rate class to which the



1 eligible customer-generator would otherwise be assigned are
2 contrary to the intent of this section, and shall not form a
3 part of net energy metering contracts or tariffs."

4 SECTION 7. Section 269-104, Hawaii Revised Statutes, is
5 amended to read as follows:

6 "**§269-104 Additional customer-generators.** Notwithstanding
7 section 269-102, an electric utility is not obligated to provide
8 net energy metering to additional customer-generators in its
9 service area when the combined total peak generating capacity of
10 all eligible customer-generators served by all the electric
11 utilities in that service area furnishing net energy metering to
12 eligible customer-generators equals .5 per cent of the system
13 peak demand of those electric utilities; provided that the
14 public utilities commission, by rule or order, may increase [~~7~~
15 ~~by rule or order,~~] or eliminate the limit to the allowable
16 percentage of the electric utility's system peak demand produced
17 from eligible customer-generators in the electric utility's
18 service area, whereupon the electric utility will be obligated
19 to provide net energy metering to additional eligible customer-
20 generators in that service area [~~up to the increased percentage~~
21 ~~amount~~]."

22 PART IV



ENERGY RESOURCES COORDINATOR

SECTION 8. Section 196-4, Hawaii Revised Statutes, is amended to read as follows:

"§196-4 Powers and duties. Subject to the approval of the governor, the coordinator shall:

(1) Formulate plans, including objectives, criteria to measure accomplishment of objectives, programs through which the objectives are to be attained, and financial requirements for the optimum development of Hawaii's energy resources;

(2) Conduct systematic analysis of existing and proposed energy resource programs, evaluate the analysis conducted by government agencies and other organizations and recommend to the governor and to the legislature programs which represent the most effective allocation of resources for the development of energy sources;

(3) Formulate and recommend specific proposals, as necessary, for conserving energy and fuel, including the allocation and distribution thereof, to the governor and to the legislature;



- 1 (4) Assist public and private agencies in implementing
2 energy conservation and related measures;
- 3 (5) Coordinate the State's energy conservation and
4 allocation programs with [~~that~~] those of the federal
5 government, other state governments, governments of
6 nations with interest in common energy resources, and
7 the political subdivisions of the State;
- 8 (6) Develop programs to encourage private and public
9 exploration and research of alternative energy
10 resources which will benefit the State;
- 11 (7) Conduct public education programs to inform the public
12 of the energy situation as may exist from time to time
13 and of the government actions taken thereto;
- 14 (8) Serve as consultant to the governor, public agencies,
15 and private industry on matters related to the
16 acquisition, utilization, and conservation of energy
17 resources;
- 18 (9) Contract for services when required for implementation
19 of this chapter;
- 20 (10) Review proposed state actions which the coordinator
21 finds to have significant effect on energy consumption
22 and report to the governor their effect on the energy



- 1 conservation program, and perform such other services
- 2 as may be required by the governor and the
- 3 legislature;
- 4 (11) Prepare and submit an annual report and such other
- 5 reports as may be requested to the governor and to the
- 6 legislature on the implementation of this chapter and
- 7 all matters related to energy resources; [~~and~~]
- 8 (12) Formulate a systematic process including the
- 9 development of requirements, to identify geographic
- 10 areas that are rich with renewable energy resource
- 11 potential which can be developed in cost-effective and
- 12 environmentally benign manner, and designate such
- 13 areas as renewable energy zones;
- 14 (13) Develop and recommend incentives plans and programs to
- 15 encourage the development of renewable energy resource
- 16 projects within the renewable energy zones;
- 17 (14) Assist public and private agencies in identifying the
- 18 utility transmission projects or infrastructure that
- 19 are required to accommodate and facilitate the
- 20 development of renewable energy resources;
- 21 (15) Assist public and private agencies in coordination
- 22 with the department of budget and finance in accessing



1 is qualified under section 209E-9, subject to the state
2 corporate or individual income tax under chapter 235, and is:

3 (1) Engaged in manufacturing, the wholesale sale of
4 tangible personal property as defined in section 237-
5 4, or a service business as defined in this chapter;

6 (2) Engaged in producing agricultural products where the
7 business is a producer as defined in section 237-5, or
8 engaged in processing agricultural products, all or
9 some of which were grown within an enterprise zone;

10 (3) Engaged in research, development, sale, or production
11 of all types of genetically-engineered medical,
12 agricultural, or maritime biotechnology products; or

13 (4) Engaged in [~~producing electric power from wind energy~~
14 ~~for sale primarily to a public utility company for~~
15 ~~resale to the public.~~] development or production of
16 fuels or thermal energy or electrical energy from
17 renewable resources, including:

18 (A) Wind;

19 (B) The sun;

20 (C) Falling water;

21 (D) Biogas, including landfill and sewage-based
22 digester gas;



- 1 (E) Geothermal;
- 2 (F) Ocean water, currents and waves;
- 3 (G) Biomass, including biomass crops, agriculture and
- 4 animal residues and wastes, and solid waste;
- 5 (H) Biofuels; and
- 6 (I) Hydrogen produced from renewable energy sources.

7 PART VI

8 RENEWABLE ENERGY FACILITATOR

9 SECTION 10. Section 201-12.5, Hawaii Revised Statutes, is
10 amended by amending subsection (b) to read as follows:

11 "(b) The renewable energy facilitator shall have the
12 following duties:

- 13 (1) Facilitate the efficient permitting of renewable
14 energy projects~~[r]~~, which include the land parcel on
15 which the facility is situated, any renewable energy
16 production structure or equipment, any energy
17 transmission line from the facility to a public
18 utility's electricity system, and any on-site
19 infrastructure necessary for the production of
20 electricity or biofuel from the renewable energy site;



1 and two hundred megawatts may apply to the coordinator for
2 designation as renewable energy facilities, with such
3 designation to be at the sole discretion of the coordinator.

4 The term includes any of the following associated with the
5 initial permitting and construction of the facility:

- 6 (1) The land parcel on which the facility is situated;
- 7 (2) Any renewable energy production structure or
8 equipment;
- 9 (3) Any energy transmission line from the facility to a
10 public utility's electricity transmission or
11 distribution system;
- 12 (4) Any on-site infrastructure; and
- 13 (5) Any on-site building, structure, other improvement, or
14 equipment necessary for the production of electricity
15 or biofuel from the renewable energy site,
16 transmission of the electricity or biofuel, or any
17 accommodation for employees of the facility.

18 SECTION 12. Section 201N-4, Hawaii Revised Statutes, is
19 amended by amending subsection (g) to read as follows:

20 "(g) Each appropriate state and county agency shall
21 diligently endeavor to process and approve or deny any permit in
22 the permit plan no later than twelve months after a completed



1 permit plan application is approved by the coordinator. If a
2 permit is not approved or denied within twelve months after
3 approval of a completed permit plan application, the permitting
4 agency, within thirty days following the twelve-month period,
5 shall provide the coordinator with a report identifying diligent
6 measures that are being taken by the agency to complete
7 processing and action as soon as practicable. If no further
8 processing and action are reported by the permitting agency
9 within five months, the permit shall be deemed approved. If a
10 permitting agency fails to provide this report and if the permit
11 has not been approved or denied within eighteen months following
12 the approval of a completed permit plan application by the
13 coordinator, the permit shall be deemed approved."

14 SECTION 13. There is appropriated out of the renewable
15 energy facility siting special fund the sum of \$1,000,000, or so
16 much thereof as may be necessary, for fiscal year 2009-2010 and
17 the sum of \$1,000,000, or so much thereof as may be necessary
18 for fiscal year 2010-2011. The sums appropriated by this Act
19 shall be expended by the department of business, economic
20 development, and tourism for the purposes of the fund created in
21 section 201N-11, Hawaii Revised Statutes.

22 SECTION 14. This Act shall take effect upon its approval.



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JAN 23 2009



Report Title:

Hawaii Clean Energy Initiative (HCEI); Electric Generation and Delivery

Description:

Establishes electric generation and delivery initiatives necessary for and contributing to the transition of Hawaii's energy sector to 70% non-petroleum energy sources by 2030.

