
A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

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
10 eighty per cent of the goods and services sold in Hawaii.
11 Household fuels and utilities costs rose 36.4 per cent, from the
12 previous year, as reflected in the Honolulu consumer price index
13 during the second quarter of 2008. Hawaii's energy costs
14 approach eleven per cent of its gross domestic product, whereas
15 in most states energy costs are four per cent of gross domestic
16 product. Between 2005 and 2008, state government consumption of
17 electricity increased 3.9 per cent, but expenditures increased
18 56.8 per cent.



1 Reducing our oil dependence and the consequent price
2 volatility and attaining energy security is critical. More than
3 ninety-six per cent of petroleum in Hawaii now comes from
4 foreign sources. Clean energy from indigenous renewable
5 resources has the potential to provide an estimated one hundred
6 fifty per cent 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 launched the Hawaii clean energy
10 initiative. This initiative and long-term partnership between
11 Hawaii and the United States Department of Energy is aimed at
12 accelerating the use and development of energy efficiency and
13 renewable energy technologies; allowing Hawaii to serve as a
14 model and demonstration for the United States and other island
15 communities; and developing a national partnership to accelerate
16 system transformation, whereby the following goals are attained:

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



- 1 (5) Foster and demonstrate innovation;
- 2 (6) Build the workforce of the future; and
- 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 and 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 forty per cent of Hawaii's energy demand by 2030, the
15 Hawaii 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 United States Department of
20 Energy, department of business, economic development, and
21 tourism, and members of the five Hawaii clean energy initiative
22 working groups during 2008. This effort presents a range of

1 measures to reach aggressive energy goals while balancing the
2 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** [f]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, beginning
9 January 1, 2015, electrical energy savings shall not
10 count towards renewable energy portfolio standards;
11 or
- 12 [+](3)[+] Electrical energy savings brought about by the use of
13 energy efficiency technologies, including heat pump
14 water heating, ice storage, ratepayer- funded energy
15 efficiency programs, and use of rejected heat from co-
16 generation and combined heat and power systems,
17 excluding fossil-fueled qualifying facilities that
18 sell electricity to electric utility companies and
19 central station power projects[-]; provided that
20 beginning January 1, 2015, electrical energy savings
21 shall not count towards renewable energy portfolio
22 standards. Beginning January 1, 2015, electrical



1 energy savings shall not include customer-sited grid-
2 connected photovoltaic systems.

3 "Renewable energy" means energy generated or produced
4 [utilizing] use the following sources:

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

18 "Renewable portfolio standard" means the percentage of
19 electrical energy sales that is represented by renewable
20 electrical energy."

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



1 "(a) Each electric utility company that sells electricity
2 for consumption in the [~~State~~] state shall establish a renewable
3 portfolio standard of:

4 (1) Ten per cent of its net electricity sales by December
5 31, 2010;

6 (2) Fifteen per cent of its net electricity sales by
7 December 31, 2015; [~~and~~]

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

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

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

16 (1) [~~At~~] By no later than December 31, 2014, at least
17 fifty per cent of the renewable portfolio standards
18 shall be met by electrical energy generated using
19 renewable energy as the source[~~-~~], and beginning
20 January 1, 2015, one hundred per cent of the renewable
21 portfolio standards shall be met by electrical
22 generation from renewable energy sources;



1 (2) Where electrical energy is generated or displaced by a
2 combination of renewable and nonrenewable means, the
3 proportion attributable to the renewable means shall
4 be credited as renewable energy; and

5 (3) Where fossil and renewable fuels are co-fired in the
6 same generating unit, the unit shall be considered to
7 generate renewable electrical energy (electricity) in
8 direct proportion to the percentage of the total heat
9 input value represented by the heat input value of the
10 renewable fuels."

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

13 "**§269-95 Renewable portfolio standards study.** The public
14 utilities commission shall:

15 (1) By December 31, 2007, develop and implement a utility
16 ratemaking structure, which may include performance-
17 based ratemaking, to provide incentives that encourage
18 Hawaii's electric utility companies to use cost-
19 effective renewable energy resources found in Hawaii
20 to meet the renewable portfolio standards established
21 in section 269-92, while allowing for deviation from
22 the standards in the event that the standards cannot



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

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

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



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

13 (B) Projected renewable portfolio standards to be set
14 five and ten years beyond the then current
15 standards;

16 (4) ~~[Revise]~~ Evaluate the renewable portfolio standards
17 every five years beginning in 2013, and may revise the
18 standards based on the best information available at
19 the time ~~[if the results of the studies conflict with]~~
20 to determine if the renewable portfolio standards
21 established by section 269-92[+] remain achievable;
22 and

1 (5) Report its findings and revisions to the renewable
 2 portfolio standards, based on its own studies and
 3 [~~those contracted under paragraph (3),~~] other
 4 information, to the legislature no later than twenty
 5 days before the convening of the regular session of
 6 [~~2009,~~] 2014, and every five years thereafter."

7 PART III

8 NET ENERGY METERING

9 SECTION 5. Section 269-101, Hawaii Revised Statutes, is
 10 amended to read as follows:

11 "**§269-101 Definitions.** As used in this part:

12 "Eligible customer-generator" means a metered residential
 13 or commercial customer, including a government entity, of an
 14 electric utility who owns and operates, leases, or purchases
 15 electricity from a solar, wind turbine, biomass, or
 16 hydroelectric energy generating facility, or a hybrid system
 17 consisting of two or more of these facilities, that is:

- 18 (1) Located on the customer's premises;
- 19 (2) Operated in parallel with the utility's transmission
 20 and distribution facilities;
- 21 (3) In conformance with the utility's interconnection
 22 requirements; and

1 (4) Intended primarily to offset part or all of the
2 customer's own electrical requirements.

3 "Net energy metering" means measuring the difference
4 between the electricity supplied through the electric grid and
5 the electricity generated by an eligible customer-generator and
6 fed back to the electric grid over a monthly billing period;
7 provided that:

8 (1) Net energy metering shall be accomplished using a
9 single meter capable of registering the flow of
10 electricity in two directions;

11 (2) An additional meter or meters to monitor the flow of
12 electricity in each direction may be installed with
13 the consent of the customer-generator, at the expense
14 of the electric utility, and the additional metering
15 shall be used only to provide the information
16 necessary to accurately bill or credit the customer-
17 generator, or to collect solar, wind turbine, biomass,
18 or hydroelectric energy generating system performance
19 information for research purposes;

20 (3) If the existing electrical meter of an eligible
21 customer-generator is not capable of measuring the
22 flow of electricity in two directions, the electric



1 utility shall be responsible for all expenses involved
2 in purchasing and installing a meter that is able to
3 measure electricity flow in two directions;

4 (4) If an additional meter or meters are installed, the
5 net energy metering calculation shall yield a result
6 identical to that of a single meter; [~~and~~]

7 (5) An eligible customer-generator who already owns an
8 existing solar, wind turbine, biomass, or
9 hydroelectric energy generating facility, or a hybrid
10 system consisting of two or more of these facilities,
11 is eligible to receive net energy metering service in
12 accordance with this part[-]; and

13 (6) The electric utility shall not unreasonably deny,
14 burden, or delay an eligible customer-generator's
15 request to participate in net energy metering."

16 SECTION 6. Section 269-104, Hawaii Revised Statutes, is
17 amended to read as follows:

18 "**§269-104 Additional customer-generators.** Notwithstanding
19 section 269-102, an electric utility is not obligated to provide
20 net energy metering to additional customer-generators in its
21 service area when the combined total peak generating capacity of
22 all eligible customer-generators served by all the electric



1 utilities in that service area furnishing net energy metering to
2 eligible customer-generators equals .5 per cent of the system
3 peak demand of those electric utilities; provided that the
4 public utilities commission, by rule or order, may increase~~[, by~~
5 ~~rule or order,]~~ or eliminate the limit to the allowable
6 percentage of the electric utility's system peak demand produced
7 from eligible customer-generators in the electric utility's
8 service area, whereupon the electric utility will be obligated
9 to provide net energy metering to additional eligible customer-
10 generators in that service area [~~up to the increased percentage~~
11 ~~amount~~]. "

12 SECTION 7. Section 269-110, Hawaii Revised Statutes, is
13 amended to read as follows:

14 "**§269-110** [~~Termination by eligible customer-generators.~~]
15 **Eligible customer-generators; termination; alternative credits**
16 **or compensation mechanisms.** (a) If an eligible customer-
17 generator terminates the customer relationship with the electric
18 utility, the electric utility shall reconcile the eligible
19 customer-generator's consumption and production of electricity,
20 including any unused credits for excess electricity from the
21 eligible customer-generator carried over from prior months, for
22 the period following the last twelve-month reconciliation period



1 to the date of termination of the relationship, according to the
2 requirements set forth in this part.

3 (b) If the public utilities commission, at any time,
4 establishes alternative mechanisms for crediting or otherwise
5 compensating eligible customer-generators for exported power,
6 eligible customer-generators with existing net energy metering
7 contracts shall have the option of maintaining these existing
8 net energy metering contracts rather than converting to new
9 alternative credits or compensation mechanisms."

10 PART IV

11 ENERGY RESOURCES COORDINATOR

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

14 "**§196-4 Powers and duties.** Subject to the approval of the
15 governor, the coordinator shall:

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

21 (2) Conduct systematic analysis of existing and proposed
22 energy resource programs, evaluate the analysis

1 conducted by government agencies and other
2 organizations and recommend to the governor and to the
3 legislature programs [~~which~~] that represent the most
4 effective allocation of resources for the development
5 of energy sources;

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

10 (4) Assist public and private agencies in implementing
11 energy conservation and related measures;

12 (5) Coordinate the State's energy conservation and
13 allocation programs with [~~that~~] those of the federal
14 government, other state governments, governments of
15 nations with interest in common energy resources, and
16 the political subdivisions of the State;

17 (6) Develop programs to encourage private and public
18 exploration and research of alternative energy
19 resources [~~which~~] that will benefit the State;

20 (7) Conduct public education programs to inform the public
21 of the energy situation as may exist from time to time
22 and of the government actions taken thereto;



- 1 (8) Serve as consultant to the governor, public agencies,
2 and private industry on matters related to the
3 acquisition, [~~utilization~~] use, and conservation of
4 energy resources;
- 5 (9) Contract for services when required for implementation
6 of this chapter;
- 7 (10) Review proposed state actions [~~which~~] that the
8 coordinator finds to have significant effect on energy
9 consumption and report to the governor their effect on
10 the energy conservation program, and perform [~~such~~]
11 other services as may be required by the governor and
12 the legislature;
- 13 (11) Prepare and submit an annual report and [~~such~~] other
14 reports as may be requested to the governor and to the
15 legislature on the implementation of this chapter and
16 all matters related to energy resources; [~~and~~]
- 17 (12) Formulate a systematic process, including the
18 development of requirements, to identify geographic
19 areas that contain renewable energy resource potential
20 that may be developed in a cost-effective and
21 environmentally benign manner and designate these
22 areas as renewable energy zones;



- 1 (13) Develop and recommend incentive plans and programs to
2 encourage the development of renewable energy resource
3 projects within the renewable energy zones;
- 4 (14) Assist public and private agencies in identifying the
5 utility transmission projects or infrastructure that
6 are required to accommodate and facilitate the
7 development of renewable energy resources;
- 8 (15) Assist public and private agencies in coordination
9 with the department of budget and finance in accessing
10 use of special purpose revenue bonds to finance the
11 engineering, design, and construction of transmission
12 projects and infrastructure that are deemed critical
13 to the development of renewable energy resources;
- 14 (16) Develop the criteria or requirements for identifying
15 and qualifying specific transmission projects or
16 infrastructure that are critical to the development of
17 renewable energy resources and for which the energy
18 resources coordinator shall assist in accessing the
19 use of special purpose revenue bonds to finance; and
- 20 [~~12~~] (17) Adopt rules for the administration of this
21 chapter pursuant to chapter 91[~~7~~]; provided that the

1 rules shall be submitted to the legislature for
2 review."

3 PART V

4 RENEWABLE ENERGY RESOURCES

5 SECTION 9. Section 209E-2, Hawaii Revised Statutes, is
6 amended by amending the definition of "qualified business" to
7 read as follows:

8 "Qualified business" means any corporation, partnership,
9 or sole proprietorship authorized to do business in the [~~State~~]
10 state that is qualified under section 209E-9, subject to the
11 state corporate or individual income tax under chapter 235, and
12 is:

- 13 (1) Engaged in manufacturing, the wholesale sale of
14 tangible personal property as defined in section 237-
15 4, or a service business as defined in this chapter;
- 16 (2) Engaged in producing agricultural products where the
17 business is a producer as defined in section 237-5, or
18 engaged in processing agricultural products, all or
19 some of which were grown within an enterprise zone;
- 20 (3) Engaged in research, development, sale, or production
21 of all types of genetically-engineered medical,
22 agricultural, or maritime biotechnology products; or



- 1 (4) Engaged in [~~producing electric power from wind energy~~
- 2 ~~for sale primarily to a public utility company for~~
- 3 ~~resale to the public.] the development or production~~
- 4 of fuels, thermal energy, or electrical energy from
- 5 renewable resources, including:
- 6 (A) Wind;
- 7 (B) The sun;
- 8 (C) Falling water;
- 9 (D) Biogas, including landfill and sewage-based
- 10 digester gas;
- 11 (E) Geothermal;
- 12 (F) Ocean water, currents, and waves, including ocean
- 13 thermal energy conversion;
- 14 (G) Biomass, including biomass crops, agriculture and
- 15 animal residues and wastes, and solid waste;
- 16 (H) Biofuels; and
- 17 (I) Hydrogen produced from renewable energy sources."

PART VI

RENEWABLE ENERGY FACILITATOR

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

1 "(b) The renewable energy facilitator shall have the
2 following duties:

3 (1) Facilitate the efficient permitting of renewable
4 energy projects~~[+]~~, including:

5 (A) The land parcel on which the facility is
6 situated;

7 (B) Any renewable energy production structure or
8 equipment;

9 (C) Any energy transmission line from the facility to
10 a public utility's electricity system; and

11 (D) Any on-site infrastructure necessary for the
12 production of electricity or biofuel from the
13 renewable energy site;

14 (2) Initiate the implementation of key renewable energy
15 projects by permitting various efficiency improvement
16 strategies identified by the department;

17 (3) Administer the day-to-day coordination for renewable
18 energy projects on behalf of the department and the
19 day-to-day operations of the renewable energy facility
20 siting process established in [~~Act 207, Session Laws~~
21 ~~of Hawaii 2008~~] chapter 201N; and



1 (4) Submit periodic reports to the legislature on
2 renewable energy facilitation activities and the
3 progress of the renewable energy facility siting
4 process."

5 PART VII

6 RENEWABLE ENERGY PERMITTING

7 SECTION 11. Section 201N-1, Hawaii Revised Statutes, is
8 amended by amending the definition of "renewable energy
9 facility" or "facility" to read as follows:

10 "Renewable energy facility" or "facility" means a new
11 facility located in the [State] state with the capacity to
12 produce from renewable energy [~~at least~~] between five megawatts
13 and two hundred megawatts of electricity[-] or a biofuel
14 production facility with a capacity to produce one million
15 gallons annually. The term includes any of the following
16 associated with the initial permitting and construction of the
17 facility:

- 18 (1) The land parcel on which the facility is situated;
- 19 (2) Any renewable energy production structure or
20 equipment;

- 1 (3) Any energy transmission line from the facility to a
2 public utility's electricity transmission or
3 distribution system;
- 4 (4) Any on-site infrastructure; and
- 5 (5) Any on-site building, structure, other improvement, or
6 equipment necessary for the production of electricity
7 or biofuel from the renewable energy site,
8 transmission of the electricity or biofuel, or any
9 accommodation for employees of the facility."

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

12 "(g) Each appropriate state and county agency shall
13 diligently endeavor to process and approve or deny any permit in
14 the permit plan no later than twelve months after a completed
15 permit plan application is approved by the coordinator. If the
16 coordinator has given at least thirty days written notice
17 stating that the permit plan application is subject to this
18 section, and a permit is not approved or denied within twelve
19 months after approval of a completed permit plan application,
20 the permitting agency, within thirty days following the twelve-
21 month period, shall provide the coordinator with a report
22 identifying diligent measures that are being taken by the agency



1 to complete processing and action as soon as practicable. If no
 2 further processing and action are reported by the permitting
 3 agency within five months, the permit shall be deemed approved.
 4 If a permitting agency fails to provide [~~this~~] the report
 5 identifying diligent measures and if the permit has not been
 6 approved or denied within eighteen months following the approval
 7 of a completed permit plan application by the coordinator, the
 8 permit shall be deemed approved."

9 SECTION 13. There is appropriated out of the renewable
 10 energy facility siting special fund the sum of \$ or so
 11 much thereof as may be necessary for fiscal year 2009-2010 and
 12 the sum of \$ or so much thereof as may be necessary for
 13 fiscal year 2010-2011.

14 The sums appropriated shall be expended by the department
 15 of business, economic development, and tourism for the purposes
 16 of the renewable energy facility siting special fund as set
 17 forth in section 201N-11, Hawaii Revised Statutes.

18 PART VIII

19 MISCELLANEOUS

20 SECTION 14. Statutory material to be repealed is bracketed
 21 and stricken. New statutory material is underscored.



1 SECTION 15. This Act shall take effect on January 1, 2050,
2 except that section 13 shall take effect on July 1, 2050.



S.B. NO. 1258
S.D. 2
H.D. 1

Report Title:

Renewable Energy

Description:

Makes various revisions to renewable energy and net energy metering provisions. Encourages the development of renewable energy in Hawaii. (SB1258 HD1)

SB1258 HD1 HMS 2009-3127

