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# A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

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

PART I

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

Hawaii is the state most dependent on petroleum for its energy needs. It pays the highest electricity prices in the United States, and its gasoline costs are among the highest in the country. Fuel surcharges that pass the increases in fuel costs to consumers have significantly increased the cost of over eighty per cent of the goods and services sold in Hawaii. Household fuels and utilities costs rose 36.4 per cent, from the previous year, as reflected in the Honolulu consumer price index during the second quarter of 2008. Hawaii's energy costs approach eleven per cent of its gross domestic product, whereas in most states energy costs are four per cent of gross domestic product. Between 2005 and 2008, state government consumption of electricity increased 3.9 per cent, but expenditures increased 56.8 per cent.



1 Reducing our oil dependence and the consequent price  
2 volatility and attaining energy security are critical. More  
3 than 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;



- (5) Foster and demonstrate innovation;
- (6) Build the workforce of the future; and
- (7) Serve as a national model.

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

- (1) Hawaii's policy and regulatory framework;
- (2) System-level technology development and integration;
- (3) Financing or capital investment; and
- (4) Institutional system planning.

To enable energy efficiency and renewable energy resources to meet forty per cent of Hawaii's energy demand by 2030, the Hawaii clean energy initiative set goals for energy efficiency, renewable and indigenous electricity production, energy delivery and improvements to the electrical grid, and diversification of energy sources for transportation. The initiatives to achieve these goals were developed by the United States Department of Energy, the department of business, economic development, and tourism, and members of the five Hawaii clean energy initiative 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 by amending the definitions of "renewable electrical  
7 energy" and "renewable energy" to read as follows:

8 "Renewable electrical energy" means:

9 (1) Electrical energy generated using renewable energy as  
10 the source; and

11 (2) Electrical energy savings brought about by: ~~[the]~~

12 (A) The use of renewable displacement or off-set  
13 technologies, including solar water heating, sea-  
14 water air-conditioning district cooling systems,  
15 solar air-conditioning, and customer-sited, grid-  
16 connected renewable energy systems; provided  
17 that, beginning January 1, 2015, electrical  
18 energy savings shall not include customer-sited,  
19 grid-connected photovoltaic systems; or

20 ~~[{(3)} Electrical energy savings brought about by the]~~

21 (B) The use of energy efficiency technologies,  
22 including heat pump water heating, ice storage,





1 ratepayer-funded energy efficiency programs, and  
2 use of rejected heat from co-generation and  
3 combined heat and power systems, excluding  
4 fossil-fueled qualifying facilities that sell  
5 electricity to electric utility companies and  
6 central station power projects.

7 "Renewable energy" means energy generated or produced  
8 ~~[utilizing]~~ using the following sources:

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



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

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

6       (1) Ten per cent of its net electricity sales by December  
7       31, 2010;

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

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

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

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

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



1 portfolio standards shall be met by electrical  
2 generation from renewable energy sources and  
3 electrical energy savings shall not count toward  
4 renewable energy portfolio standards;

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

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

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

17 "**§269-95 Renewable portfolio standards study.** The public  
18 utilities commission shall:

19 (1) By December 31, 2007, develop and implement a utility  
20 ratemaking structure, which may include performance-  
21 based ratemaking, to provide incentives that encourage  
22 Hawaii's electric utility companies to use cost-



1 effective renewable energy resources found in Hawaii  
2 to meet the renewable portfolio standards established  
3 in section 269-92, while allowing for deviation from  
4 the standards in the event that the standards cannot  
5 be met in a cost-effective manner or as a result of  
6 events or circumstances, such as described in section  
7 269-92(d), beyond the control of the utility that  
8 could not have been reasonably anticipated or  
9 ameliorated;

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

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



1 companies, environmental groups, and other similar  
2 institutions with the required expertise. These  
3 studies shall include findings and recommendations  
4 regarding:

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

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

20 (4) ~~[Revise]~~ Evaluate the renewable portfolio standards  
21 every five years beginning in 2013, and may revise the  
22 standards based on the best information available at



the time ~~[if the results of the studies conflict with]~~  
to determine if the renewable portfolio standards  
 established by section 269-92[+] remain achievable;  
 and

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

## PART III

## NET ENERGY METERING

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

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

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

(1) Located on the customer's premises;



1 (2) Operated in parallel with the utility's transmission  
2 and distribution facilities;

3 (3) In conformance with the utility's interconnection  
4 requirements; and

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

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

12 (1) Net energy metering shall be accomplished using a  
13 single meter capable of registering the flow of  
14 electricity in two directions;

15 (2) An additional meter or meters to monitor the flow of  
16 electricity in each direction may be installed with  
17 the consent of the customer-generator, at the expense  
18 of the electric utility, and the additional metering  
19 shall be used only to provide the information  
20 necessary to accurately bill or credit the customer-  
21 generator, or to collect solar, wind turbine, biomass,



1 or hydroelectric energy generating system performance  
2 information for research purposes;

3 (3) If the existing electrical meter of an eligible  
4 customer-generator is not capable of measuring the  
5 flow of electricity in two directions, the electric  
6 utility shall be responsible for all expenses involved  
7 in purchasing and installing a meter that is able to  
8 measure electricity flow in two directions;

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

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

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

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





1       "**§269-104 Additional customer-generators.** Notwithstanding  
2 section 269-102, an electric utility is not obligated to provide  
3 net energy metering to additional customer-generators in its  
4 service area when the combined total peak generating capacity of  
5 all eligible customer-generators served by all the electric  
6 utilities in that service area furnishing net energy metering to  
7 eligible customer-generators equals .5 per cent of the system  
8 peak demand of those electric utilities; provided that the  
9 public utilities commission, by rule or order, may increase~~[, by~~  
10 ~~rule or order,~~] or eliminate the limit on the allowable  
11 percentage of the electric utility's system peak demand produced  
12 from eligible customer-generators in the electric utility's  
13 service area, whereupon the electric utility will be obligated  
14 to provide net energy metering to additional eligible customer-  
15 generators in that service area [~~up to the increased percentage~~  
16 ~~amount~~]."

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

19       "**§269-110** [~~Termination by eligible customer-generators.~~]  
20 **Eligible customer-generators; termination; alternative credits**  
21 **or compensation mechanisms.** (a) If an eligible customer-  
22 generator terminates the customer relationship with the electric



1 utility, the electric utility shall reconcile the eligible  
2 customer-generator's consumption and production of electricity,  
3 including any unused credits for excess electricity from the  
4 eligible customer-generator carried over from prior months, for  
5 the period following the last twelve-month reconciliation period  
6 to the date of termination of the relationship, according to the  
7 requirements set forth in this part.

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

15 PART IV

16 ENERGY RESOURCES COORDINATOR

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

19 **"§196-4 Powers and duties.** Subject to the approval of the  
20 governor, the coordinator shall:

21 (1) Formulate plans, including objectives, criteria to  
22 measure accomplishment of objectives, programs through



1 which the objectives are to be attained, and financial  
2 requirements for the optimum development of Hawaii's  
3 energy resources;

4 (2) Conduct systematic analysis of existing and proposed  
5 energy resource programs, evaluate the analysis  
6 conducted by government agencies and other  
7 organizations and recommend to the governor and to the  
8 legislature programs [~~which~~] that represent the most  
9 effective allocation of resources for the development  
10 of energy sources;

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

15 (4) Assist public and private agencies in implementing  
16 energy conservation and related measures;

17 (5) Coordinate the State's energy conservation and  
18 allocation programs with [~~that~~] those of the federal  
19 government, other state governments, governments of  
20 nations with interest in common energy resources, and  
21 the political subdivisions of the State;



- 1 (6) Develop programs to encourage private and public  
2 exploration and research of alternative energy  
3 resources [~~which~~] that will benefit the State;
- 4 (7) Conduct public education programs to inform the public  
5 of the energy situation as may exist from time to time  
6 and of the government actions taken thereto;
- 7 (8) Serve as consultant to the governor, public agencies,  
8 and private industry on matters related to the  
9 acquisition, [~~utilization~~] use, and conservation of  
10 energy resources;
- 11 (9) Contract for services when required for implementation  
12 of this chapter;
- 13 (10) Review proposed state actions [~~which~~] that the  
14 coordinator finds to have significant effect on energy  
15 consumption and report to the governor their effect on  
16 the energy conservation program, and perform [~~such~~]  
17 other services as may be required by the governor and  
18 the legislature;
- 19 (11) Prepare and submit an annual report and [~~such~~] other  
20 reports as may be requested to the governor and to the  
21 legislature on the implementation of this chapter and  
22 all matters related to energy resources; [~~and~~]



1     (12) Formulate a systematic process, including the  
2     development of requirements, to identify geographic  
3     areas that contain renewable energy resource potential  
4     that may be developed in a cost-effective and  
5     environmentally benign manner and designate these  
6     areas as renewable energy zones;

7     (13) Develop and recommend incentive plans and programs to  
8     encourage the development of renewable energy resource  
9     projects within the renewable energy zones;

10    (14) Assist public and private agencies in identifying  
11    utility transmission projects or infrastructure that  
12    are required to accommodate and facilitate the  
13    development of renewable energy resources;

14    (15) Assist public and private agencies, in coordination  
15    with the department of budget and finance, in  
16    accessing use of special purpose revenue bonds to  
17    finance the engineering, design, and construction of  
18    transmission projects and infrastructure that are  
19    deemed critical to the development of renewable energy  
20    resources;

21    (16) Develop criteria or requirements for identifying and  
22    qualifying specific transmission projects or



infrastructure that are critical to the development of  
renewable energy resources and for which the  
coordinator shall assist in accessing the use of  
special purpose revenue bonds to finance; and  
[(-12+)] (17) Adopt rules for the administration of this  
chapter pursuant to chapter 91[7]; provided that the  
rules shall be submitted to the legislature for  
review."

## PART V

## RENEWABLE ENERGY RESOURCES

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

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

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



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

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

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

(A) Wind;

(B) The sun;

(C) Falling water;

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

(E) Geothermal;

(F) Ocean water, currents, and waves, including ocean thermal energy conversion;

(G) Biomass, including biomass crops, agriculture and animal residues and wastes, and solid waste;



1           (H) Biofuels; and

2           (I) Hydrogen produced from renewable energy sources."

3           SECTION 10. Section 209E-11, Hawaii Revised Statutes, is  
4 amended to read as follows:

5           "**§209E-11 State general excise exemptions.** The department  
6 shall certify annually to the department of taxation that any  
7 qualified business is exempt from the payment of general excise  
8 taxes on the gross proceeds from the manufacture of tangible  
9 personal property, the wholesale sale of tangible personal  
10 property, the engaging in a service business by a qualified  
11 business, the engaging in the development or production of  
12 fuels, thermal energy, or electrical energy from renewable  
13 resources, or the engaging in research, development, sale, or  
14 production of all types of genetically-engineered medical,  
15 agricultural, or maritime biotechnology products; provided that  
16 agricultural businesses other than those engaged in the  
17 production of genetically-engineered agricultural products shall  
18 not be exempt from the payment of general excise taxes on the  
19 gross proceeds of agricultural retail sales. The gross proceeds  
20 received by a contractor licensed under chapter 444 shall be  
21 exempt from the general excise tax for construction within an  
22 enterprise zone performed for a qualified business within an





1 enterprise zone. The exemption shall extend for a period not to  
2 exceed seven years; provided that if a force majeure event  
3 occurs, then the period of time shall be tolled until the force  
4 majeure event ceases."

5 PART VI

6 RENEWABLE ENERGY FACILITATOR

7 SECTION 11. Section 201-12.5, Hawaii Revised Statutes, is  
8 amended by amending subsection (b) to read as follows:

9 "(b) The renewable energy facilitator shall have the  
10 following duties:

11 (1) Facilitate the efficient permitting of renewable  
12 energy projects[+], including:

13 (A) The land parcel on which the facility is  
14 situated;

15 (B) Any renewable energy production structure or  
16 equipment;

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

19 (D) Any on-site infrastructure necessary for the  
20 production of electricity or biofuel from the  
21 renewable energy site;



- (2) Initiate the implementation of key renewable energy projects by permitting various efficiency improvement strategies identified by the department;
- (3) Administer the day-to-day coordination for renewable energy projects on behalf of the department and the day-to-day operations of the renewable energy facility siting process established in [~~Act 207, Session Laws of Hawaii 2008;~~] chapter 201N; and
- (4) Submit periodic reports to the legislature on renewable energy facilitation activities and the progress of the renewable energy facility siting process. "

## PART VII

## RENEWABLE ENERGY PERMITTING

SECTION 12. Section 201N-1, Hawaii Revised Statutes, is amended by amending the definition of "renewable energy facility" or "facility" to read as follows:

"Renewable energy facility" or "facility" means a new facility located in the ~~[State]~~ state with the capacity to produce from renewable energy ~~[at least]~~ between five megawatts and two hundred megawatts of electricity[-], or a biofuel production facility with a capacity to produce one million



1 gallons annually. The term includes any of the following  
2 associated with the initial permitting and construction of the  
3 facility:

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

16 SECTION 13. Section 201N-4, Hawaii Revised Statutes, is  
17 amended by amending subsection (g) to read as follows:

18 "(g) Each appropriate state and county agency shall  
19 diligently endeavor to process and approve or deny any permit in  
20 the permit plan no later than twelve months after a completed  
21 permit plan application is approved by the coordinator. If the  
22 coordinator has given at least thirty days written notice



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

15 SECTION 14. There is appropriated out of the renewable  
16 energy facility siting special fund the sum of \$            or so  
17 much thereof as may be necessary for fiscal year 2009-2010 and  
18 the sum of \$            or so much thereof as may be necessary for  
19 fiscal year 2010-2011.

20 The sums appropriated shall be expended by the department  
21 of business, economic development, and tourism for the purposes



1 of the renewable energy facility siting special fund as set  
2 forth in section 201N-11, Hawaii Revised Statutes.

3 PART VIII

4 MISCELLANEOUS

5 SECTION 15. Statutory material to be repealed is bracketed  
6 and stricken. New statutory material is underscored.

7 SECTION 16. This Act shall take effect on July 1, 2020.



**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 HD2)

