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# A BILL FOR AN ACT

RELATING TO RENEWABLE ENERGY.

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

1           SECTION 1. The legislature finds that the State must  
2 improve and develop new types of renewable energy to reduce  
3 dependence on imported oil to generate electricity.  
4 Accordingly, the legislature enacted the net energy metering law  
5 as an effective incentive for the rapid development of renewable  
6 electricity self-generation at low cost to the public.  
7           However, the legislature recognizes that customer capacity  
8 and capacity limits have restricted the effectiveness of net  
9 energy metering. These limits were established to ensure the  
10 safety and reliability of the grid. However, they are no longer  
11 needed since the public utilities commission has subsequently  
12 established procedures to address these issues, including  
13 approval of the technical standard for distributed generation  
14 interconnection. Additionally, since that time, it has been  
15 recognized that net energy metering imposes no additional costs  
16 on the ratepaying public, and accordingly, the total capacity  
17 limit no longer serves its purpose, except to reduce the size,

1 slow the speed, and increase the cost of renewable electricity  
2 development in Hawaii.

3 The purpose of this Act is to facilitate and encourage the  
4 development of renewable energy development in Hawaii, reduce  
5 the State's dependence on imported oil, reduce the cost of the  
6 State's electricity supply by increasing the consumer capacity  
7 limit on net metering, eliminating the total capacity limit on  
8 net metering, and permitting existing net metered customers to  
9 remain with the program once a feed-in tariff or other tariff  
10 structures are implemented.

11 SECTION 2. Chapter 269, part VI, Hawaii Revised Statutes,  
12 is amended as follows:

13 1. By amending section 269-101 to read:

14 "**§269-101 Definitions.** As used in this part:

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

21 (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 utility shall not unreasonably deny, burden, or  
19 delay net energy metering service upon request by an  
20 eligible customer-generator of the utility."
- 21 2. By amending section 269-101.5 to read:

1           "~~§269-101.5~~ **Maximum capacity of eligible customer-**  
2 **generator.** The eligible customer-generator shall have a  
3 capacity of not more than ~~[fifty kilowatts; provided that the~~  
4 ~~public utilities commission may increase the maximum allowable~~  
5 ~~capacity that eligible customer-generators may have to an amount~~  
6 ~~greater than fifty kilowatts by rule or order.]~~ one megawatt."

7           3. By amending section 269-102 to read:

8           "**§269-102 Standard contract or tariff; rate structure.**

9           (a) Every electric utility shall develop a standard contract or  
10 tariff providing for net energy metering and shall make this  
11 contract available to eligible customer-generators, upon  
12 request, on a first-come-first-served basis ~~[until the time that~~  
13 ~~the total rated generating capacity produced by eligible~~  
14 ~~customer-generators equals .5 per cent of the electric utility's~~  
15 ~~system peak demand; provided that the public utilities~~  
16 ~~commission may modify, by rule or order, the total rated~~  
17 ~~generating capacity produced by eligible customer-generators;~~  
18 ~~provided further that the public utilities commission shall~~  
19 ~~ensure that a percentage of the total rated generating capacity~~  
20 ~~produced by eligible customer-generators shall be reserved for~~  
21 ~~electricity produced by eligible residential or small commercial~~  
22 ~~customer-generators. The public utilities commission may~~

1 ~~define, by rule or order, the maximum capacity for eligible~~  
2 ~~residential or small commercial customer generators.~~  
3 ~~Notwithstanding the generating capacity requirements of this~~  
4 ~~subsection, the public utilities commission may evaluate, on an~~  
5 ~~island-by-island basis, the applicability of the generating~~  
6 ~~capacity requirements of this subsection and, in its discretion,~~  
7 ~~may exempt an island or a utility grid system from the~~  
8 ~~generating capacity requirements].~~

9 (b) Each net energy metering contract or tariff shall be  
10 identical, with respect to rate structure, to the contract or  
11 tariff to which the same customer would be assigned if the  
12 customer was not an eligible customer-generator. The charges  
13 for all retail rate components for eligible customer-generators  
14 shall be based exclusively on the eligible customer-generator's  
15 net kilowatt-hour consumption over a monthly billing period.  
16 Any new or additional demand charge, standby charge, customer  
17 charge, minimum monthly charge, interconnection charge, or other  
18 charge that would increase an eligible customer-generator's  
19 costs beyond those of other customers in the rate class to which  
20 the eligible customer-generator would otherwise be assigned are  
21 contrary to the intent of this section, and shall not form a  
22 part of net energy metering contracts or tariffs.

1       ~~[(c) The public utilities commission may amend the rate~~  
2 ~~structure or standard contract or tariff by rule or order.]"~~

3       4. By amending section 269-105 to read:

4       "**§269-105 Calculation.** The net energy metering  
5 calculation shall be made by measuring the difference between  
6 the electricity supplied to the eligible customer-generator and:

7       (1) The electricity generated by the eligible customer-  
8 generator and fed back to the electric grid over a  
9 monthly billing period; and

10       (2) Any unused kilowatt-hour credits for excess  
11 electricity from the eligible customer-generator  
12 carried over from previous months since the last  
13 twelve-month reconciliation period."

14       5. By amending section 269-106 to read:

15       "**§269-106 Billing periods; twelve-month reconciliation.**

16 (a) Billing of net energy metering customers shall be on a  
17 monthly basis; provided that the last monthly bill for each  
18 twelve-month period shall reconcile for that twelve-month period  
19 the net electricity provided by the electric utility with:

20       (1) The electricity generated by the eligible customer-  
21 generator and fed back to the electric grid over the  
22 monthly billing period; and

1           (2) Any unused kilowatt-hour credits for excess  
2           electricity from the eligible customer-generator  
3           carried over from prior months since the last twelve-  
4           month reconciliation period.

5           (b) [~~Credits~~] Kilowatt-hour credits for excess electricity  
6           from the eligible customer-generator that remain unused after  
7           each twelve-month reconciliation period may not be carried over  
8           to the next twelve-month period."

9           6. By amending section 269-107 to read:

10           "**§269-107 Net electricity consumers.** At the end of each  
11           monthly billing period, where the electricity supplied during  
12           the period by the electric utility exceeds:

13           (1) The electricity generated by the eligible customer-  
14           generator during that same period; and

15           (2) Any unused kilowatt-hour credits for excess  
16           electricity from the eligible customer-generator  
17           carried over from prior months since the last twelve-  
18           month reconciliation period,

19           the eligible customer-generator is a net electricity consumer  
20           and the electric utility shall be owed compensation for the  
21           eligible customer-generator's net kilowatt-hour consumption over  
22           that same period. The compensation owed for the eligible



1 customer-generator's net monthly kilowatt-hour consumption shall  
2 be calculated at the retail rate of the rate class the customer  
3 is normally assigned to."

4 7. By amending section 269-108 to read:

5 **"§269-108 Net electricity producers; excess electricity**  
6 **credits and credit carry over.** At the end of each monthly  
7 billing period, where the electricity generated by the eligible  
8 customer-generator during the month exceeds the electricity  
9 supplied by the electric utility during that same period, the  
10 eligible customer-generator is a net electricity producer and  
11 the electric utility shall retain any excess kilowatt-hours  
12 generated during the prior monthly billing period; provided that  
13 the excess electricity generated by the customer-generator, if  
14 any, in each monthly billing period shall be carried over to the  
15 next month as a [~~monetary~~] kilowatt-hour value to the credit of  
16 the eligible customer-generator, which credit may accumulate and  
17 be used to offset the compensation owed the electric utility for  
18 the eligible customer-generator's net kilowatt-hour consumption  
19 for succeeding months within each twelve-month period; provided  
20 further that the electric utility shall reconcile the eligible  
21 customer-generator's electricity production and consumption for  
22 each twelve-month period as set forth in section 269-106. [~~The~~

1 ~~eligible customer-generator shall not be owed any compensation~~  
2 ~~for excess kilowatt hours unless the electric utility enters~~  
3 ~~into a purchase agreement with the eligible customer-generator~~  
4 ~~for those excess kilowatt hours.]"~~

5 8. By amending section 269-110 to read:

6 "~~§269-110 [Termination by eligible customer-generators.]~~

7 Eligible customer-generators; termination; alternative credits

8 or compensation mechanisms. If an eligible customer-generator

9 terminates the customer relationship with the electric utility,

10 the electric utility shall reconcile the eligible

11 customer-generator's consumption and production of electricity,

12 including any unused credits for excess electricity from the

13 eligible customer-generator carried over from prior months, for

14 the period following the last twelve-month reconciliation period

15 to the date of termination of the relationship, according to the

16 requirements set forth in this part.

17 If the public utilities commission, at any time,

18 establishes alternative mechanisms for crediting or otherwise

19 compensating eligible customer-generators for exported power,

20 eligible customer-generators with existing net energy metering

21 contracts shall have the option of maintaining these existing

1 net energy metering contracts rather than converting to new  
2 alternative credits or compensation mechanisms."

3 9. By amending section 269-111 to read:

4 "**§269-111 Safety and performance standards.** (a) A solar,  
5 wind turbine, biomass, or hydroelectric energy generating  
6 system, or a hybrid system consisting of two or more of these  
7 facilities, used by an eligible customer-generator shall meet  
8 all applicable safety and performance standards established by  
9 the National Electrical Code, the Institute of Electrical and  
10 Electronics Engineers, and accredited testing laboratories such  
11 as the Underwriters Laboratories and, where applicable, rules of  
12 the public utilities commission regarding safety and  
13 reliability.

14 (b) For systems of [~~ten~~] one hundred kilowatts or less, an  
15 eligible customer-generator whose solar, wind turbine, biomass,  
16 or hydroelectric energy generating system, or whose hybrid  
17 system consisting of two or more of these facilities, meets the  
18 standards and rules under subsection (a) shall not be required  
19 to install additional controls, perform or pay for additional  
20 tests, or purchase additional liability insurance.

21 (c) For eligible customer-generator systems of greater  
22 than [~~ten~~] one hundred kilowatts, the public utilities

1 commission, either through decision and order, by tariff  
2 adoption, or by rule, shall:

3 (1) Set forth safety, performance, and reliability  
4 standards and requirements; and

5 (2) Establish the qualifications for exemption from a  
6 requirement to install additional controls, perform or  
7 pay for additional tests, or purchase additional  
8 liability insurance.

9 (d) The public utilities commission shall initiate a  
10 rulemaking proceeding by September 1, 2009 to adopt best  
11 practices interconnection standards for solar, wind turbine,  
12 biomass, or hydroelectric energy generating facilities.

13 Upon adoption, the standards shall become the  
14 interconnection requirements of each utility subject to the  
15 jurisdiction of the public utilities commission. As part of the  
16 rulemaking proceeding, the public utilities commission shall  
17 consider:

18 (1) Interconnection standards adopted by other states  
19 twenty-four months prior to the rulemaking proceeding;

20 (2) Standards promulgated by the Federal Energy Regulatory  
21 Commission; and

1       (3) Model standards developed by nonprofit organizations  
2       whose primary purpose is to promote renewable energy.

3       The public utilities commission shall adopt best practices  
4       interconnection standards no later than September 1, 2010."

5       10. By repealing section 269-104:

6       ["~~§269-104 Additional customer-generators.~~

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

21       SECTION 3. Statutory material to be repealed is bracketed  
22       and stricken. New statutory material is underscored.

**1** SECTION 4. This Act shall take effect upon its approval.

**Report Title:**

Net Energy Metering; Renewable Energy; Electricity; Public  
Utilities Commission

**Description:**

Removes the capacity limit for net energy metering and increases eligible customer-generator capacity to one megawatt. Permits existing net metered customers to remain with net metering program once alternative credits or compensation mechanisms are created. Allows an eligible customer-generator to generate up to one hundred kilowatts before the eligible customer-generator must gain public utilities commission approval of safety and performance standards. (SD1)