
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 net energy metering
2 is uniquely helpful to Hawaii's homeowners and business owners
3 because it allows them to fully hedge their future power costs
4 and to know their future energy costs with certainty.

5 The legislature finds that net energy metering should
6 persist even after the public utilities commission has
7 established alternative compensation systems such as feed in
8 tariff because net energy metering serves a different need in
9 the renewable energy marketplace.

10 The legislature finds that there is no technical
11 justification for setting net energy metering project size
12 limits at the current statutory maximum of one hundred
13 kilowatts. This is evidenced by the public utilities
14 commission's recent decision to allow feed in tariff projects as
15 large as five megawatts without reference to the type of circuit
16 to which they are interconnected. It is also evidenced by the
17 HECO Companies' proposals for systems that range from up to five



1 hundred kilowatts in the feed in tariff docket to two megawatts
2 in the public utilities host docket. The legislature further
3 finds that HECO Companies already have a process in place to
4 manage reliability issues associated with distributed generation
5 via its Rule 14H. Because all net energy metered systems are
6 distributed systems, Rule 14(H) provides a limit on the level of
7 net energy metering penetration that is intended to engineer out
8 technical problems caused by distributed energy systems.

9 In conclusion, the legislature finds that net energy
10 metering should be perpetuated irrespective of the eventual
11 introduction and uptake level of feed in tariff systems. The
12 existence of feed in tariffs does not in any way constitute a
13 justification for eliminating or reducing net energy metering.
14 The legislature further finds that no changes to procurement
15 rules or options can justify transferring customer-generators
16 with net energy metering contracts off of those contracts.
17 Customer-generators with net energy metering contracts should
18 not be removed against their will from those contracts during
19 the term of the contracts. Finally, the legislature finds that
20 this Act applies only to investor-owned utilities.



1 SECTION 2. Chapter 269, part VI, Hawaii Revised Statutes,
2 is amended by adding a new section to be appropriately
3 designated and to read as follows:

4 **"§269- Administrative efficiency.** The utility shall not
5 unreasonably deny, burden, or delay net energy metering service
6 that is requested by an eligible customer-generator of the
7 utility."

8 SECTION 3. Chapter 269, part IV, Hawaii Revised Statutes
9 is amended as follows:

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

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."

13 2. By amending section 269-101.5 to read:

14 "[+]§269-101.5[+] **Maximum capacity of eligible customer-**
15 **generator.** The eligible customer-generator shall have a
16 capacity of not more than [~~fifty kilowatts,~~] two megawatts;
17 provided that the public utilities commission may increase the
18 maximum allowable capacity that eligible customer-generators may
19 have to an amount greater than [~~fifty kilowatts~~] two megawatts
20 by rule or order."

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



1 **"§269-102 Standard contract or tariff; rate structure.**

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



1 ~~may exempt an island or a utility grid system from the~~
2 ~~generating capacity requirements].~~

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

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

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

20 **"§269-105 Calculation.** The net energy metering
21 calculation shall be made by measuring the difference between
22 the electricity supplied to the eligible customer-generator and:



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

4 (2) Any unused kilowatt-hour credits for excess
5 electricity from the eligible customer-generator
6 carried over from previous months since the last
7 twelve-month reconciliation period."

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

9 **"§269-106 Billing periods; twelve-month reconciliation.**

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

14 (1) The electricity generated by the eligible customer-
15 generator and fed back to the electric grid over the
16 monthly billing period; and

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

21 (b) [~~Credits~~] Kilowatt-hour credits for excess electricity
22 from the eligible customer-generator that remain unused after



1 each twelve-month reconciliation period may not be carried over
2 to the next twelve-month period."

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

4 **"§269-107 Net electricity consumers.** At the end of each
5 monthly billing period, where the electricity supplied during
6 the period by the electric utility exceeds:

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

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

13 the eligible customer-generator is a net electricity consumer
14 and the electric utility shall be owed compensation for the
15 eligible customer-generator's net kilowatt-hour consumption over
16 that same period. The compensation owed for the eligible
17 customer-generator's net monthly kilowatt-hour consumption shall
18 be calculated at the retail rate of the rate class the customer
19 is normally assigned to."

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

21 **"§269-108 Net electricity producers; excess electricity**
22 **credits and credit carry over.** At the end of each monthly



1 billing period, where the electricity generated by the eligible
2 customer-generator during the month exceeds the electricity
3 supplied by the electric utility during that same period, the
4 eligible customer-generator is a net electricity producer and
5 the electric utility shall retain any excess kilowatt-hours
6 generated during the prior monthly billing period; provided that
7 the excess electricity generated by the customer-generator, if
8 any, in each monthly billing period shall be carried over to the
9 next month as a [~~monetary~~] kilowatt-hour value to the credit of
10 the eligible customer-generator, which credit may accumulate and
11 be used to offset the compensation owed the electric utility for
12 the eligible customer-generator's net kilowatt-hour consumption
13 for succeeding months within each twelve-month period; provided
14 further that the electric utility shall reconcile the eligible
15 customer-generator's electricity production and consumption for
16 each twelve-month period as set forth in section 269-106. [~~The~~
17 ~~eligible customer generator shall not be owed any compensation~~
18 ~~for excess kilowatt hours unless the electric utility enters~~
19 ~~into a purchase agreement with the eligible customer generator~~
20 ~~for those excess kilowatt hours.] "~~

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



1 "~~§269-110 [Termination by eligible customer-generators.]~~

2 Eligible customer-generators; termination; alternative credits
3 or compensation mechanisms. If an eligible customer-generator

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

12 If the public utilities commission, at any time,
13 establishes alternative mechanisms for crediting or otherwise
14 compensating eligible customer-generators for exported power,
15 eligible customer-generators with existing net energy metering
16 contracts shall have the option of maintaining those existing
17 net energy metering contracts rather than converting to new
18 alternative credits or compensation mechanisms."

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

20 "~~§269-111~~ **Safety and performance standards.** (a) A solar,
21 wind turbine, biomass, or hydroelectric energy generating
22 system, or a hybrid system consisting of two or more of these



1 facilities, used by an eligible customer-generator shall meet
2 all applicable safety and performance standards established by
3 the National Electrical Code, the Institute of Electrical and
4 Electronics Engineers, and accredited testing laboratories such
5 as the Underwriters Laboratories and, where applicable, rules of
6 the public utilities commission regarding safety and
7 reliability.

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

15 (c) For eligible customer-generator systems of greater
16 than [~~ten~~] five hundred kilowatts[~~7~~] on the island of Oahu, two
17 hundred fifty kilowatts on the islands of Hawaii and Maui, and
18 up to one hundred kilowatts on the islands of Molokai and Lanai,
19 the public utilities commission, either through decision and
20 order, by tariff adoption, or by rule, shall:

21 (1) Set forth safety, performance, and reliability
22 standards and requirements; and



1 (2) Establish the qualifications for exemption from a
2 requirement to install additional controls, perform or
3 pay for additional tests, or purchase additional
4 liability insurance.

5 (d) The public utilities commission shall initiate a
6 rulemaking proceeding by August 1, 2010 to adopt best practices
7 interconnection standards for solar, wind turbine, biomass, and
8 hydroelectric energy generating facilities.

9 Upon adoption, the standards shall become the
10 interconnection requirements of each utility subject to the
11 jurisdiction of the public utilities commission. As part of the
12 rulemaking proceeding, the public utilities commission shall
13 consider:

- 14 (1) Standards for comparably-sized feed-in tariffs;
- 15 (2) Interconnection standards adopted by other states
16 within the twenty-four months prior to the rulemaking
17 proceeding;
- 18 (3) Standards adopted by the Federal Energy Regulatory
19 Commission; and
- 20 (4) Model standards developed by nonprofit organizations
21 whose primary purpose is to promote renewable energy.



1 The public utilities commission shall adopt best practices
2 interconnection standards no later than December 31, 2010."

3 10. By repealing section 269-104:

4 [~~"§269-104 Additional customer generators.~~

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

19 SECTION 4. Statutory material to be repealed is bracketed
20 and stricken. New statutory material is underscored.

21



1 SECTION 5. This Act shall take effect upon its approval.

2

INTRODUCED BY: Mike Gable

Erzanne Chun Calalang

D. Chyn Hee

Michelle D. Stedini

Norman Sotomayor

David Ylze

Guy L. Aar

F. Alani Goh



Report Title:

Net Energy Metering; Renewable Energy; Public Utilities
Commission

Description:

Removes the total rated and combined total peak generating capacity limits for net energy metering and increases eligible customer-generator capacity to two megawatts. Permits existing net-metered customers to remain with the net metering program once alternative credits or compensation mechanisms are created. Allows an eligible customer-generator up to five hundred kilowatts before the eligible customer-generator must gain public utilities commission approval of safety and performance standards. Requires PUC to initiate rulemaking to adopt interconnection standards for certain renewable energy facilities.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

