
A BILL FOR AN ACT

RELATING TO PUBLIC UTILITIES.

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

1 SECTION 1. The legislature finds that Hawaii is especially
2 vulnerable to the volatility in global oil markets. In November
3 2007, oil prices reached \$100 per barrel. Electric utilities
4 will shift these high fuel costs to electric utility consumers
5 in the form of higher electric utility rates. For example,
6 residential electric rates on Kauai could reach as high as 50
7 fifty cents per kilowatt hour.

8 The legislature further finds that the draft report of the
9 Hawaii 2050 sustainability task force creates a long-term
10 vision, action agenda, and implementation mechanisms for
11 achieving sustainability for the State. The report emphasizes
12 that taking action is necessary to accomplish the sustainability
13 objectives. The legislature further finds that one of the first
14 actions must be to remove barriers to renewable energy
15 development.

16 The legislature further finds that the public utilities
17 commission has an open docket related to net energy metering in
18 which a settlement proposal has recently been submitted. The



1 settlement allows modest incremental increases in the current
2 net energy metering limits, but it also requires any future
3 changes to the limits to be determined by the electric utilities
4 through the lengthy and complex integrated resource planning
5 process. Moreover, it generally requires that one-half of the
6 net metered systems be limited to less than ten kilowatts. The
7 legislature further finds that a settlement such as this may
8 have been helpful a decade ago, but given today's high oil
9 prices, the impact of oil generation on climate change, and
10 Hawaii's sustainability goals, it is far too small a step
11 towards removing the barriers to customer-owned distributed
12 solar generation.

13 The purpose of this Act is to enhance Hawaii's energy and
14 economic security and reduce its vulnerability to fluctuating
15 fuel prices related to electricity generation by removing
16 barriers to the development of solar electric resources and
17 increasing the accessibility of net energy metering.

18 SECTION 2. Section 269-101, Hawaii Revised Statutes, is
19 amended to read as follows:

20 "**§269-101 Definitions.** As used in this part:

21 "Eligible customer-generator" means a metered residential
22 or commercial customer, including a government entity, of an



1 electric utility who owns and operates, leases or purchases
2 electricity from a solar, wind turbine, biomass, or
3 hydroelectric energy generating facility, or a hybrid system
4 consisting of two or more of these facilities, that is:

- 5 (1) Located on the customer's premises;
- 6 (2) Operated in parallel with the utility's transmission
7 and distribution facilities;
- 8 (3) In conformance with the utility's interconnection
9 requirements; and
- 10 (4) Intended primarily to offset part or all of the
11 customer's own electrical requirements.

12 "Net energy metering" means measuring the difference
13 between the electricity supplied through the electric grid and
14 the electricity generated by an eligible customer-generator and
15 fed back to the electric grid over a monthly billing period;
16 provided that:

- 17 (1) Net energy metering shall be accomplished using a
18 single meter capable of registering the flow of
19 electricity in two directions;
- 20 (2) An additional meter or meters to monitor the flow of
21 electricity in each direction may be installed with
22 the consent of the customer-generator, at the expense



1 of the electric utility, and the additional metering
2 shall be used only to provide the information
3 necessary to accurately bill or credit the customer-
4 generator, or to collect solar, wind turbine, biomass,
5 or hydroelectric energy generating system performance
6 information for research purposes;

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

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

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



1 (6) The electric utility shall not unreasonably deny,
 2 burden, or delay net energy metering services upon
 3 request by an eligible customer-generator of the
 4 electric utility."

5 SECTION 3. Section 269-101.5, Hawaii Revised Statutes, is
 6 amended to read as follows:

7 "~~+~~**§269-101.5**~~+~~ **Maximum capacity of eligible customer-**
 8 **generator.** The eligible customer-generator shall have a
 9 capacity of not more than ~~[fifty]~~ five hundred kilowatts~~+~~ in
 10 2008, one megawatt in 2009, and two megawatts thereafter;
 11 provided that the public utilities commission may increase the
 12 maximum allowable capacity that eligible customer-generators may
 13 have to an amount greater than ~~[fifty kilowatts]~~ these amounts
 14 by rule or order."

15 SECTION 4. Section 269-102, Hawaii Revised Statutes, is
 16 amended to read as follows:

17 "**§269-102 Standard contract or tariff; rate structure.**

18 (a) Every electric utility shall develop a standard contract or
 19 tariff providing for net energy metering and shall make this
 20 contract available to eligible customer-generators, upon
 21 request, on a first-come-first-served basis until the time that
 22 the total rated generating capacity produced by eligible



1 customer-generators equals [~~.5~~] one per cent of the electric
2 utility's system peak demand[+] in 2008, two per cent of the
3 electric utility's system peak demand in 2009, five per cent of
4 the electric utility's system peak demand in 2010, and without
5 limitation thereafter; provided that the public utilities
6 commission may increase, by rule or order, the total rated
7 generating capacity produced by eligible customer-generators to
8 an amount above [~~.5 per cent of the electric utility's system~~
9 ~~peak demand.~~] the limitations specified in this section.

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



1 contrary to the intent of this section, and shall not form a
2 part of net energy metering contracts or tariffs.

3 ~~[(e) The public utilities commission may amend the rate
4 structure or standard contract or tariff by rule or order.]~~"

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

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



1 SECTION 6. Section 269-105, Hawaii Revised Statutes, is
2 amended to read as follows:

3 **"§269-105 Calculation.** The net energy metering
4 calculation shall be made by measuring the difference between
5 the electricity supplied to the eligible customer-generator and:

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

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

13 SECTION 7. Section 269-106, Hawaii Revised Statutes, is
14 amended to read as follows:

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.~~] shall be compensated to the
9 eligible customer-generator by the electric utility at the rate
10 provided in section 269-27.2(c) for the prior twelve-month
11 period."

12 SECTION 8. Section 269-107, Hawaii Revised Statutes, is
13 amended to read as follows:

14 "**§269-107 Net electricity consumers.** At the end of each
15 monthly billing period, where the electricity supplied during
16 the period by the electric utility exceeds:

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

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



1 the eligible customer-generator is a net electricity consumer
2 and the electric utility shall be owed compensation for the
3 eligible customer-generator's net kilowatt-hour consumption over
4 that same period. The compensation owed for the eligible
5 customer-generator's net monthly kilowatt-hour consumption shall
6 be calculated at the retail rate of the rate class the customer
7 is normally assigned to."

8 SECTION 9. Section 269-108, Hawaii Revised Statutes, is
9 amended to read as follows:

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



1 the eligible customer-generator's net kilowatt-hour consumption
2 for succeeding months within each twelve-month period; provided
3 further that the electric utility shall reconcile the eligible
4 customer-generator's electricity production and consumption for
5 each twelve-month period as set forth in section 269-106. [~~The
6 eligible customer generator shall not be owed any compensation
7 for excess kilowatt hours unless the electric utility enters
8 into a purchase agreement with the eligible customer generator
9 for those excess kilowatt hours.~~]"

10 SECTION 10. Section 269-111, Hawaii Revised Statutes, is
11 amended to read as follows:

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



1 (b) For systems of ten kilowatts or less, an eligible
2 customer-generator whose solar, wind turbine, biomass, or
3 hydroelectric energy generating system, or whose hybrid system
4 consisting of two or more of these facilities, meets the
5 standards and rules under subsection (a) shall not be required
6 to install additional controls, perform or pay for additional
7 tests, or purchase additional liability insurance.

8 (c) For eligible customer-generator systems of greater
9 than ten kilowatts, the commission, either through decision and
10 order, by tariff adoption, or by rule, shall:

11 (1) Set forth safety, performance, and reliability
12 standards and requirements; and

13 (2) Establish the qualifications for exemption from a
14 requirement to install additional controls, perform or
15 pay for additional tests, or purchase additional
16 liability insurance.

17 (d) The public utilities commission shall initiate
18 rulemaking proceedings by September 1, 2008, to adopt best
19 practices interconnection standards for solar, wind turbine,
20 biomass, or hydroelectric energy generating facilities. No
21 later than September 1, 2009, the commission shall adopt rules
22 pursuant to chapter 91 that incorporate best practices



1 interconnection standards. Upon adoption, the standards shall
 2 become the interconnection requirements of each utility subject
 3 to the authority of the commission. As part of the rulemaking
 4 process, the commission shall consider interconnection standards
 5 adopted within the previous twenty-four months by other states,
 6 standards promulgated by the United States Federal Energy
 7 Regulatory Commission, and model standards developed by
 8 nonprofit organizations with the primary purpose of promoting
 9 renewable energy."

10 SECTION 11. This Act does not affect rights and duties
 11 that matured, penalties that were incurred, and proceedings that
 12 were begun, before its effective date.

13 SECTION 12. Statutory material to be repealed is bracketed
 14 and stricken. New statutory material is underscored.

15 SECTION 13. This Act shall take effect upon its approval.

16

INTRODUCED BY: 

JAN 18 2008



Report Title:

Public Utilities; Net Energy Metering

Description:

Increases the total rated generating capacity produced by eligible customer-generators. Increases the maximum capacity of an eligible customer-generator. Requires the public utilities commission to adopt rules that incorporate best practices interconnection standards.

