
A BILL FOR AN ACT

RELATING TO ENERGY RESOURCES.

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

1 SECTION 1. The legislature finds that Hawaii's economic
2 viability is dependent on the availability of affordable energy
3 pricing. In early 2008, the price of crude oil surpassed the
4 \$100 per barrel mark from the 2007 annual average of \$65 per
5 barrel, burdening Hawaii's residents and businesses with
6 increasingly high electricity and gasoline costs.

7 Recognizing the critical importance of energy to the State,
8 the 1976 legislature enacted Act 189 establishing state income
9 tax credits to encourage private investment in renewable energy
10 systems among other measures, and these incentives have proven
11 successful, beneficial, and cost effective. The original Act
12 has been amended 11 times, varying credit rates, applicability,
13 and duration, demonstrating that past progress and prior
14 accomplishments in energy sustainability confer no license for
15 complacency. The legislature finds, in fact, fossil fuel
16 imports now account for a greater impact upon Hawaii's economy
17 than at any prior time in the past, substantially exceeding that



1 of every other state despite the fact that we are blessed with
2 the greatest number of renewable energy resources in the nation.

3 According to the January 2002 report of the energy-
4 efficiency policy task force, in 2001 when oil prices averaged
5 \$23 per barrel, the State of Hawaii refunded an estimated
6 \$2,765,000 to 2,500 solar thermal system purchasers. This
7 spending was estimated to have led to the following economic
8 outcomes:

- 9 (1) Support for 300 jobs each year that the energy
10 conservation income tax credit remained at a 35 per
11 cent level and creation of 64 new jobs for every 2,500
12 new systems installed, a job impact that increased in
13 relation to the number of systems continuously
14 installed; and
- 15 (2) A return to the State of \$5,200,000 in tax revenues
16 for every 2,500 systems installed over the 25-year
17 life of these systems, a revenue impact that increased
18 in relation to the number of systems continuously
19 installed. For example, if the number of systems
20 installed each year grows to 5,000, it was predicted
21 that \$10,400,000 in tax revenue would be generated



1 over the life of these systems at current tax
2 incentive levels.

3 The task force also found that the historical relationship
4 between the effective tax credit and number of solar systems
5 sold indicated that the estimated number of solar systems sold
6 would decrease to 287 with the elimination of the tax credit,
7 thereby resulting in loss of jobs and decrease in tax revenues.

8 However, the legislature finds that, with crude oil prices
9 rising from \$65 to over \$100 per barrel in less than one year
10 and with no relief under the State's direct control and
11 jeopardizing the State's economic viability, the State must
12 seriously consider requiring the installation of solar thermal
13 systems to heat water in all new single-family dwellings
14 constructed after December 31, 2009, to accelerate the
15 installation of this type of energy saving device to benefit the
16 owners and renters of newly constructed homes. A government
17 mandate of this technology in new home construction effectively
18 shifts from government investment in this technology via tax
19 credits to a required investment by the private sector that will
20 result in greater benefit to the public at large through the
21 prudent investment in this type of renewable energy saving
22 device.



1 The legislature finds that a conventional electric water
2 tank accounts for 30 to 35 per cent of a home's electric bill.
3 It is estimated that the savings from a home's electricity bill
4 through the installation of a solar thermal water heater could
5 result in the system being paid off in eight to ten years
6 without a state tax incentive. Furthermore, if the expense of
7 the installation of a solar thermal water heater is included in
8 the mortgage of a new home, given the high and unpredictable
9 cost of oil, the savings from the lowered electricity costs may
10 exceed the additional monthly payments for the solar thermal
11 system, which itself has the added benefit of being an allowable
12 tax deductible expense that may also be eligible for a federal
13 renewable energy tax credit. Therefore, the legislature finds
14 that with a solar thermal water heater mandate, and with a
15 properly sized and installed solar thermal system, a household
16 can increase its disposable income through this type of prudent,
17 energy saving investment.

18 The legislature further finds that the favorable impact of
19 this policy on the environment is undeniable. In 2006, there
20 were 5,700 new residences constructed; assuming that the number
21 of new single-homes constructed remains approximately the same,



1 this would amount of over 10,260 tons of greenhouse gas
2 emissions avoided per year.

3 Accordingly, the purpose of this Act is to increase the use
4 of renewable energy to protect our environment, reduce
5 pollution, make housing more affordable, and enhance Hawaii's
6 local economy by:

- 7 (1) Requiring the installation of solar energy water
8 heating devices, comparable renewable energy devices,
9 or demand gas water heaters in all new residential
10 development projects;
- 11 (2) Restricting the solar thermal energy system tax credit
12 to pre-existing homes constructed before January 1,
13 2010, and reducing the credit to 20 per cent; and
- 14 (3) Making the credit available at 15 per cent, to homes
15 constructed after January 1, 2010, conditioned on the
16 continued applicability of Hawaiian Electric Company's
17 solar water heater equipment, use, and installation
18 standards program, including its 100-point rating
19 scale for solar water heating units and rebate, to
20 systems that qualify for this credit.



1 SECTION 2. Chapter 196, Hawaii Revised Statutes, is
2 amended by adding a new section to be appropriately designated
3 and to read as follows:

4 "§196- Solar thermal device required for new single-
5 family residential construction. (a) Beginning with
6 construction for which permits are issued after January 1, 2010,
7 a solar thermal device shall be installed as the primary water
8 heating system in the construction of every new residential
9 detached single-family residence unless:

10 (1) Installation is:

11 (A) Impracticable due to poor solar resource; or

12 (B) Cost prohibitive; and

13 A substitute renewable energy device is installed;

14 provided that if a substitute device is installed, the

15 device shall be the most practical, energy-efficient

16 device available, as determined by an architect or

17 engineer licensed under chapter 464, and the architect

18 or engineer shall attest in writing that a solar

19 thermal device cannot be installed for the reasons

20 stated in paragraph (1) (A) or (1) (B), and submits the

21 written attestation on behalf of the building permit

22 holder to the county building code authority;



1 or
2 (2) A demand water heater device approved by Underwriters
3 Laboratories Inc., is installed. For the purposes of
4 this paragraph, "demand water heater" means a
5 tankless, instantaneous water heater that provides hot
6 water only as it is needed through the use of a gas
7 burner.

8 (b) Water heating devices required under subsection (a)
9 shall be installed by a licensed installer in compliance with
10 all manufacturer and industry standards. The licensed installer
11 of the device, or the architect or engineer licensed under
12 chapter 464 if the device is specified through building plans,
13 shall submit a written attestation to the county building code
14 authority stating that the installed device is suitably sized
15 for the number of people expected to occupy the dwelling and
16 meets the applicable county building code.

17 (c) Nothing in this section shall preclude any county from
18 establishing procedures and standards required to implement this
19 section."

20 SECTION 3. Section 235-12.5, Hawaii Revised Statutes, is
21 amended by amending subsection (a) to read as follows:



1 (a) When the requirements of subsection (c) are met, each
2 individual or corporate taxpayer that files an individual or
3 corporate net income tax return for a taxable year may claim a
4 tax credit under this section against the Hawaii state
5 individual or corporate net income tax. The tax credit may be
6 claimed for every eligible renewable energy technology system
7 that is installed and placed in service in the [~~State~~] state by
8 a taxpayer during the taxable year. This credit shall be
9 available for systems installed and placed in service in the
10 [~~State~~] state after June 30, 2003. The tax credit may be
11 claimed as follows:

- 12 (1) Solar thermal energy systems [~~for~~] installed in:
13 (A) Single-family residential property: [~~thirty-~~
14 five]
15 (i) Twenty per cent of the actual cost or
16 \$2,250, whichever is less~~+~~, for a
17 residence newly constructed as authorized by
18 a permit issued on or prior to January 1,
19 2010; and
20 (ii) Fifteen per cent of the actual cost or
21 \$2,250, whichever is less, for a residence
22 newly constructed as authorized by a permit



1 issued after January 1, 2010; provided that
 2 at the time the system is installed and
 3 placed in service, Hawaiian Electric
 4 Company's solar water heater equipment, use,
 5 and installation standards program,
 6 including its 100-point rating scale for
 7 solar water heating units and rebate,
 8 applies to the system;

9 (B) Multi-family residential property: thirty-five
 10 per cent of the actual cost or \$350 per unit,
 11 whichever is less; and

12 (C) Commercial property: thirty-five per cent of the
 13 actual cost or \$250,000, whichever is less;

14 (2) Wind-powered energy systems for:

15 (A) Single-family residential property: twenty per
 16 cent of the actual cost or \$1,500, whichever is
 17 less;

18 (B) Multi-family residential property: twenty per
 19 cent of the actual cost or \$200 per unit,
 20 whichever is less; and

21 (C) Commercial property: twenty per cent of the
 22 actual cost or \$500,000, whichever is less; and



- 1 (3) Photovoltaic energy systems for:
- 2 (A) Single-family residential property: thirty-five
- 3 per cent of the actual cost or \$5,000, whichever
- 4 is less;
- 5 (B) Multi-family residential property: thirty-five
- 6 per cent of the actual cost or \$350 per unit,
- 7 whichever is less; and
- 8 (C) Commercial property: thirty-five per cent of the
- 9 actual cost or \$500,000, whichever is less;
- 10 provided that multiple owners of a single system shall be
- 11 entitled to a single tax credit; and provided further that the
- 12 tax credit shall be apportioned between the owners in proportion
- 13 to their contribution to the cost of the system.

14 In the case of a partnership, S corporation, estate, or
 15 trust, the tax credit allowable is for every eligible renewable
 16 energy technology system that is installed and placed in service
 17 in the [~~State~~] state by the entity. The cost upon which the tax
 18 credit is computed shall be determined at the entity level.
 19 Distribution and share of credit shall be determined pursuant to
 20 section 235-110.7(a)."

21 SECTION 4. Statutory material to be repealed is bracketed
 22 and stricken. New statutory material is underscored.



- 1 SECTION 5. This Act shall take effect upon approval;
- 2 provided that section 3 shall take effect on January 1, 2010.



Report Title:

Solar Energy Devices; Water Heating; Residential; Tax Credit

Description:

Requires installation of solar thermal or demand water heaters in single-family residences constructed after 1/1/2010; Reduces to 20%, Renewable Energy Tax Credit for solar thermal systems in single-family residences constructed before 1/1/2010; Extends the credit at 15%, on certain conditions, to residences constructed after 1/1/2010. (SB644 HD2)

