
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 eleven times, varying credit rates,
13 applicability, and duration, demonstrating that past progress
14 and prior accomplishments in energy sustainability confer no
15 license for complacency. The legislature finds, in fact, fossil
16 fuel imports now account for a greater impact upon Hawaii's
17 economy than at any prior time in the past, substantially



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

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

- 10 (1) Support for three hundred jobs each year that the
11 energy conservation income tax credit remained at a
12 thirty-five per cent level and creation of sixty-four
13 new jobs for every two thousand five hundred new
14 systems installed, a job impact that increased in
15 relation to the number of systems continuously
16 installed; and
- 17 (2) A return to the State of \$5,200,000 in tax revenues
18 for every two thousand five hundred systems installed
19 over the twenty-five-year life of these systems, a
20 revenue impact that increased in relation to the
21 number of systems continuously installed. For
22 example, if the number of systems installed each year



1 grows to five thousand, it was predicted that
2 \$10,400,000 in tax revenue would be generated over the
3 life of these systems at current tax incentive levels.

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

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



1 prudent investment in this type of renewable energy saving
2 device.

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

20 The legislature further finds that the favorable impact of
21 this policy on the environment is undeniable. In 2006, there
22 were five thousand seven hundred new residences constructed;



1 assuming that the number of new single-homes constructed remains
2 approximately the same, this would amount of over 10,260 tons of
3 greenhouse gas emission avoided per year.

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

8 (1) Requiring the installation of solar energy or
9 comparable renewable energy devices for water heating
10 in all new residential development projects; and

11 (2) Restricting the solar thermal energy system tax credit
12 to pre-existing homes constructed before January 1,
13 2010.

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

17 **"§196- Solar thermal device required for new single-**
18 **family residential construction.** (a) Beginning with
19 construction for which permits are issued after January 1, 2010,
20 a solar thermal device shall be installed as the primary water
21 heating system in the construction of every new residential
22 detached single-family residence unless:



- 1 (1) Installation is impracticable due to poor solar
2 resource;
- 3 (2) Installation is cost prohibitive; or
- 4 (3) A substitute renewable energy device is installed;
5 provided that if a substitute device is installed, the
6 device shall be the most practical, energy-efficient
7 device available, as determined by an architect or
8 engineer licensed under chapter 464, and the architect
9 or engineer attests in writing that a solar thermal
10 device cannot be installed for the reasons stated in
11 paragraphs (1) or (2), and submits the written
12 attestation on behalf of the building permit holder to
13 the county building code authority.

14 (b) Solar thermal devices shall be installed by a licensed
15 installer in compliance with all manufacturer and industry
16 standards. The licensed installer of the solar thermal device
17 or substitute device required by this section, or the architect
18 or engineer licensed under chapter 464 if the solar thermal
19 device is specified through building plans, shall submit a
20 written attestation to the county building code authority,
21 stating that the installed solar thermal device, or substitute
22 device, is suitably sized for the number of people expected to



1 occupy the dwelling and meets the applicable county building
2 code.

3 (c) Nothing in this section shall preclude any county from
4 establishing procedures and standards required to implement this
5 section."

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

8 "(a) When the requirements of subsection (c) are met, each
9 individual or corporate taxpayer that files an individual or
10 corporate net income tax return for a taxable year may claim a
11 tax credit under this section against the Hawaii state
12 individual or corporate net income tax. The tax credit may be
13 claimed for every eligible renewable energy technology system
14 that is installed and placed in service in the State by a
15 taxpayer during the taxable year. This credit shall be
16 available for systems installed and placed in service in the
17 State after June 30, 2003. The tax credit may be claimed as
18 follows:

19 (1) Solar thermal energy systems [~~for~~] installed in:

20 (A) Single-family residential property: thirty-five
21 per cent of the actual cost or \$2,250, whichever
22 is less; provided that beginning January 1, 2010,



1 the tax credit shall apply only to residences
2 originally constructed prior to January 1, 2010;
3 provided further that new homes constructed after
4 January 1, 2010, shall not be eligible for the
5 tax credit;

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

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

11 (2) Wind-powered energy systems for:

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

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

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

20 (3) Photovoltaic energy systems for:



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

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

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

22 SECTION 5. This Act shall take effect upon approval.



Report Title:

Solar Energy Devices; Water Heating; Residential; Tax Credit

Description:

Requires the installation of solar thermal or comparable renewable energy devices to heat water in single-family residences constructed after 1/1/2010. Restricts renewable energy income tax credit for solar thermal energy systems installed and placed in service in single-family residential properties to those constructed prior to 1/1/2010. (SB644 HD1)

