

JAN 22 2008

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 the use of fossil
2 fuels to heat water is one of the most significant contributors
3 to environmental pollution. Its use also perpetuates Hawaii's
4 dependence on imported oil petroleum products.

5 The legislature further finds that solar energy is the most
6 abundant renewable energy resource in Hawaii. Using solar
7 energy for water heating is the best "clean" energy alternative
8 for homes in the State. It will save four thousand eight
9 hundred sixty tons of carbon dioxide per year. This is a
10 significant reduction in the amount of human-made carbon dioxide
11 emissions from burning fossil fuels, the primary culprit of
12 greenhouse gas effect. In addition, using solar energy to heat
13 water will save Hawaii thirty thousand seven hundred eighty
14 barrels of oil per year, an average savings per household of
15 almost five and a half barrels per year.

16 In addition, the use of solar energy devices for
17 residential water heating will provide consumers with



1 significant cost savings, compared to the use of traditional
2 water heating devices that use petroleum products with unstable
3 and increasing costs. Conventional electric water tanks account
4 for ten to fifteen per cent of a home's electric bill. The cost
5 savings from operating a solar water heater versus a
6 conventional electric water heater will offset the higher cost
7 of installation. In the case of a solar water heater, it is
8 estimated that savings in utilities cost will pay for the new
9 unit in three years. Furthermore, if the expenses for the
10 installation are included in the mortgage payments of a new
11 home, the savings from the lowered electric bill will be less
12 than the additional monthly payment. For example, if the cost
13 of installing a solar water heater is \$6,000 for a thirty-year
14 mortgage with a six per cent annual percentage rate, the monthly
15 cost would equal \$40 per month. In addition, cost savings for
16 contractors and developers who can purchase in bulk may be
17 passed on to new homeowners. This is when the cost of
18 installing a solar energy device is the lowest. If every new
19 home has a solar, gas or on-demand water heater then the State's
20 dependence on imported oil would be significantly reduced over
21 time. In the case of a residence using solar energy, the
22 greenhouse gas (carbon dioxide) saved over a fifteen year period



1 would be twenty-seven tons or 54,000 automobile miles. In 2006,
2 there were 5,700 new residences constructed; assuming that the
3 number of new single-homes constructed remains relatively the
4 same, this would amount to 10,260 tons of greenhouse gas saved
5 per year.

6 The concept of mandating solar water heating is not new.
7 Israel has had this policy in place since 1957, recognizing the
8 need to be petroleum independent from their neighboring
9 countries. In the United States, more than 1.5 million homes
10 and businesses currently use solar water heating. These home
11 and business owners realize not only the cost savings, but also
12 the importance of keeping their local communities sustainable
13 now and in the future. Hawaii would be able to invest \$34.2
14 million annually into the state's local economy with the
15 installation of solar water heaters into new home construction.
16 This would also result in \$550,000 annually that remains in the
17 pockets of Hawaii taxpayer's, as opposed to the cost of exported
18 oil. General excise tax generated from the sale of new solar
19 water heaters would be approximately \$1.5 million annually, more
20 than off-setting any cost to the State.

21 The purpose of this Act is to increase the use of renewable
22 energy to protect our environment, reduce pollution, make



1 housing more affordable, and enhance Hawaii's local economy by
2 requiring the installation of solar energy or comparable
3 renewable energy devices for water heating in all new
4 residential development projects and by expanding the tax credit
5 to pre-existing homes constructed before January 1, 2010.

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

9 **"§196- Solar energy or comparable renewable energy**
10 **devices required for new single-family residential construction.**

11 (a) Beginning January 1, 2010, solar energy or comparable
12 renewable energy devices shall be installed as the primary
13 system to heat water, in the construction of every new
14 residential detached single-family residence, except when:

- 15 (1) Installation is impracticable due to building design
16 or location of the building; or
17 (2) Installation is cost prohibitive; as determined by the
18 county building code authority upon a letter submitted
19 by the homeowner from an architect or engineer
20 licensed under chapter 464 to the effect that
21 paragraph (1) or (2) is applicable and the reasons
22 therefor.



1 (b) Installation of solar energy or comparable renewable
2 energy devices shall be in accordance with Hawaiian Electric
3 Company's 100-point installation inspection or a comparable
4 quality assurance standard. The contractor for each new
5 detached single-family residence, condominium, and townhouse
6 shall submit a written attestation to the department stating
7 that the installed solar energy device is suitably sized for the
8 number of people expected to occupy the dwelling and meets the
9 department's quality assurance standards.

10 (c) The director of business, economic development, and
11 tourism shall adopt rules pursuant to chapter 91 necessary for
12 purposes of this section."

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

15 "(a) When the requirements of subsection (c) are met, each
16 individual or corporate resident taxpayer that files an
17 individual or corporate net income tax return for a taxable year
18 may claim a tax credit under this section against the Hawaii
19 state individual or corporate net income tax. The tax credit
20 may be claimed for every eligible renewable energy technology
21 system that is installed and placed in service by a taxpayer
22 during the taxable year. This credit shall be available for



1 systems installed and placed in service after June 30, 2003.

2 The tax credit may be claimed as follows:

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

4 (A) Single-family residential property: thirty-five
5 per cent of the actual cost or \$2,250, whichever
6 is less; provided that beginning January 1, 2010,
7 the tax credit shall be raised to forty-five per
8 cent of the actual cost or \$3,250, whichever is
9 less, and shall apply only to residences
10 originally constructed prior to January 1, 2010;
11 all new homes constructed after January 1, 2010
12 shall not be eligible for the tax credit;

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

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

18 (2) Wind-powered energy systems for:

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



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

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

6 (3) Photovoltaic energy systems for:

7 (A) Single-family residential property: thirty-five
8 per cent of the actual cost or \$5,000, whichever
9 is less;

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

13 (C) Commercial property: thirty-five per cent of the
14 actual cost or \$500,000, whichever is less;

15 provided that multiple owners of a single system shall be
16 entitled to a single tax credit; and provided further that the
17 tax credit shall be apportioned between the owners in proportion
18 to their contribution to the cost of the system.

19 In the case of a partnership, S corporation, estate, or
20 trust, the tax credit allowable is for every eligible renewable
21 energy technology system that is installed and placed in service
22 by the entity. The cost upon which the tax credit is computed



1 shall be determined at the entity level. Distribution and share
2 of credit shall be determined pursuant to section 235-110.7(a)."

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

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

6

INTRODUCED BY: *Guy L. Bann*



Report Title:

Solar Energy Devices; Water Heating; Residential; Tax Credit

Description:

Requires the installation of solar energy or comparable renewable energy devices to heat water in newly constructed residential properties. Incrementally increases limits for renewable energy income tax credit to systems installed and placed in service, in single family residential properties constructed prior to 1/1/2010.

