
A BILL FOR AN ACT

RELATING TO ENERGY.

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

1 SECTION 1. The legislature finds that Hawaii's dependence
2 on petroleum for about ninety per cent of its energy needs is
3 more than any other state in the nation. This makes the State
4 extremely vulnerable to any oil embargo, supply disruption,
5 international market dysfunction, and many other factors beyond
6 the control of the State. Furthermore, the continued
7 consumption of conventional petroleum fuel negatively impacts
8 the environment.

9 The legislature also finds that increased energy efficiency
10 and use of renewable energy resources would increase Hawaii's
11 energy self-sufficiency, achieving broad societal benefits,
12 including increased energy security, resistance to increases in
13 oil prices, environmental sustainability, economic development,
14 and job creation.

15 Over the years, the legislature has worked steadily to
16 encourage the deployment of renewable energy resources and
17 energy efficiency initiatives. This includes establishing a net
18 energy metering program, interconnection standards, and



1 renewable energy tax credits; establishing greenhouse gas and
2 energy consumption reduction goals for state facilities and
3 requiring the use of energy efficient products in state
4 facilities; and providing incentives for the deployment of solar
5 energy devices. The legislature also established an enforceable
6 renewable energy portfolio standard, under which twenty per cent
7 of Hawaii's electricity is to be generated from renewable
8 resources by the end of 2020.

9 To shape Hawaii's energy future and achieve the goal of
10 energy self-sufficiency for the State of Hawaii, our efforts
11 must continue on all fronts, integrating new and evolving
12 technologies and providing incentives and assistance to address
13 barriers. The purpose of this Act is to provide a comprehensive
14 approach to achieving energy self-sufficiency for the State by:

15 (1) Increasing the renewable energy technologies income
16 tax credit for certain solar thermal and photovoltaic
17 energy systems and removing the tax credits' 2008
18 sunset date;

19 (2) Authorizing the issuance of general obligation bonds
20 to develop and implement a pilot project to install
21 photovoltaic systems at public schools on the islands
22 of Oahu, Hawaii, Maui, and Kauai;



- 1 (3) Authorizing the issuance of general obligation bonds
2 to bring state facilities into compliance with the
3 purposes of Act 77, Session Laws of Hawaii 2002,
4 which, among other things, establishes greenhouse gas
5 and energy consumption reduction goals for state
6 facilities;
- 7 (4) Requiring the incorporation of Leadership in Energy
8 and Environmental Design silver standards for
9 buildings constructed or substantially renovated with
10 funding consisting of fifty per cent or more in state
11 funds to enable the State to access creative
12 engineering and design guidelines and promote green
13 building practices;
- 14 (5) Establishing the Pay As You Save pilot project to
15 provide a financing mechanism to make purchases of
16 residential solar hot water heater systems more
17 affordable;
- 18 (6) Establishing a biodiesel preference in Hawaii's
19 procurement law; and
- 20 (7) Establishing a Hawaii renewable hydrogen program and
21 hydrogen investment capital special fund and
22 appropriating funds therefor.



1 SECTION 2. Chapter 235-12.5, Hawaii Revised Statutes, is
2 amended as follows:

3 1. By amending subsection (a) to read:

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

14 (1) Solar thermal energy systems for:

15 (A) Single-family residential property: thirty-five
16 per cent of the actual cost or [~~\$1,750~~] \$2,250,
17 whichever is less;

18 (B) Multi-family residential property: thirty-five
19 per cent of the actual cost or [~~\$350~~] \$1,000 per
20 unit, whichever is less; and



- 1 (C) Commercial property: thirty-five per cent of the
2 actual cost or [~~\$250,000,~~] \$500,000, whichever is
3 less;
- 4 (2) Wind-powered energy systems for:
- 5 (A) Single-family residential property: twenty per
6 cent of the actual cost or \$1,500, whichever is
7 less;
- 8 (B) Multi-family residential property: twenty per
9 cent of the actual cost or \$200 per unit,
10 whichever is less; and
- 11 (C) Commercial property: twenty per cent of the
12 actual cost or \$250,000, whichever is less; and
- 13 (3) Photovoltaic energy systems for:
- 14 (A) Single-family residential property: thirty-five
15 per cent of the actual cost or [~~\$1,750,~~] \$7,500,
16 whichever is less;
- 17 (B) Multi-family residential property: thirty-five
18 per cent of the actual cost or [~~\$350~~] \$1,000 per
19 unit, whichever is less; and
- 20 (C) Commercial property: thirty-five per cent of the
21 actual cost or [~~\$250,000,~~] \$500,000, whichever is
22 less;



1 provided that multiple owners of a single system shall be
2 entitled to a single tax credit; and provided further that the
3 tax credit shall be apportioned between the owners in proportion
4 to their contribution to the cost of the system.

5 In case of a partnership, S corporation, estate, or trust,
6 the tax credit allowable is for every eligible renewable energy
7 technology system that is installed and placed in service by the
8 entity. The cost upon which the tax credit is computed shall be
9 determined at the entity level. Distribution and share of
10 credit shall be determined pursuant to section 235-110.7(a)."

11 2. By amending subsection (c) to read:

12 "(c) ~~[The]~~ For taxable years beginning after December 31,
13 2005, the dollar amount of [any new federal energy tax credit
14 similar to the credit provided in this section that is
15 established after June 30, 2003, and] any utility rebate~~[r]~~
16 shall be deducted from the cost of the qualifying system and its
17 installation before applying the state tax credit."

18 SECTION 3. Act 207, Session Laws of Hawaii 2003, is
19 amended by amending section 4 to read as follows:

20 "SECTION 4. This Act shall take effect on July 1, 2003~~[r]~~
21 ~~and shall be repealed January 1, 2008]."~~



1 SECTION 4. The director of finance is authorized to issue
2 general obligation bonds in the sum of \$, or so much
3 thereof as may be necessary, and the same sum, or so much
4 thereof as may be necessary, is appropriated for fiscal year
5 2006-2007 for the purpose of developing and implementing a
6 photovoltaic, net energy metered pilot project in public
7 schools. The department of education shall determine the
8 project sites most suitable in meeting the pilot project's
9 objectives. The project objectives are:

- 10 (1) To have, at minimum, a project site at one public
11 school on each of the islands of Oahu, Hawaii, and
12 Kauai, and one public school within the county of
13 Maui;
- 14 (2) To allow installation of photovoltaic systems to be
15 timed in conjunction with substantial roof repairs or
16 roof replacement of buildings to further reduce
17 project costs;
- 18 (3) To utilize the application of net energy metering to
19 offset costs of the system;
- 20 (4) To recapture system costs within three-quarters of the
21 useful life of the photovoltaic system; and



1 (5) When advantageous, to utilize energy-savings contracts
2 such as third party lease/purchase contracts to
3 maximize the objectives of this section.

4 The sum appropriated shall be expended by the department of
5 education for the purposes of this Act.

6 The department of education shall submit an interim report
7 on the pilot project to the legislature no later than twenty
8 days prior to the convening of the regular session of 2007 and a
9 final report to the legislature no later than twenty days prior
10 to the convening of the regular session of 2008.

11 SECTION 5. Chapter 196, Hawaii Revised Statutes, is
12 amended by adding a new section to be appropriately designated
13 and to read as follows:

14 **"§196- Leadership in Energy and Environmental Design**
15 **silver standards for newly constructed or substantially**
16 **renovated facilities.** All design that is initiated on or after
17 July 1, 2006, for construction of a building or substantial
18 renovation of a building, utilizing fifty per cent or more in
19 state funds, shall incorporate Leadership in Energy and
20 Environmental Design silver standards developed by the United
21 States Green Building Council."



1 SECTION 6. The director of finance is authorized to issue
2 general obligation bonds in the sum of \$, or so much
3 thereof as may be necessary, and the same sum, or so much
4 thereof as may be necessary, is appropriated for fiscal year
5 2006-2007 for the purpose of making improvements to state
6 facilities to bring them into compliance with the purposes of
7 Act 77, Session Laws of 2002; provided that priority for the
8 energy conservation projects in existing public buildings shall
9 be based on those buildings that result in immediate payback in
10 cost savings and conservation. The sum appropriated shall be
11 expended by the department of accounting and general services
12 for the purposes of this Act.

13 SECTION 7. The appropriations made for the capital
14 improvement projects authorized by this Act shall not lapse at
15 the end of the fiscal biennium for which the appropriation is
16 made; provided that all moneys from the appropriation
17 unencumbered as of June 30, 2008, shall lapse as of that date.

18 SECTION 8. Chapter 269, Hawaii Revised Statutes, is
19 amended by adding a new part to be appropriately designated and
20 to read as follows:

21 "PART . ENERGY EFFICIENCY MARKET-BASED INITIATIVE

22 §269- Definitions. For the purposes of this part:



1 "Certification process" means a process approved by the
2 commission whereby a public utility approves the pay as you save
3 financing method for the renewable energy technology measure to
4 be installed in the dwelling unit as being cost effective and
5 efficient.

6 "Commission" means the public utilities commission.

7 "Cost-effective renewable energy technology measures" means
8 renewable energy technology measures with sufficient estimated
9 electricity or gas savings, determined by rates in effect at the
10 time of purchase, and other quantifiable non-energy savings that
11 are sufficient to cover all costs, including financing charges
12 and any program fees, by payments of no more than three-quarters
13 of the estimated savings within a period no greater than three-
14 quarters of the estimated useful life of the measure.

15 "Pay as you save model system" means the market-based
16 system based on the "Pay As You Save" model:

17 (1) Whereby a residential electric and gas utility
18 customer may purchase cost-effective renewable energy
19 technology products or services with no upfront
20 payment, pay the cost of the renewable energy
21 technology over time on the customer's electric or gas
22 bill, and bear no obligation to continue payments if



1 the residential customer no longer can receive the
2 benefit of the energy savings; and
3 (2) That contains the following three essential elements:
4 (A) A pay as you save model system fee that assigns
5 repayment of permanent measures to the meter
6 location;
7 (B) Billing and payment through a charge included in
8 the energy utility distribution charges; and
9 (C) Certification that the measures and installations
10 are appropriate and that estimated savings will
11 exceed payments.

12 "Pay as you save model system fee" means the fee that is
13 established by the public utility to defray costs of the
14 program, subject to approval by the commission.

15 "Permanent measures" means renewable energy technology
16 measures that are likely to remain in the premises where
17 installed, notwithstanding the subsequent departure by occupants
18 of the premises.

19 "Portable measures" means renewable energy technology
20 measures that are susceptible of being removed by occupants upon
21 their departure from the premises where these measures were
22 installed.



1 "Renewable energy" means energy produced by solar energy
2 conserved by passive solar design, or daylighting.

3 "Renewable energy technology" means technology that uses
4 renewable energy to provide hot water to a dwelling unit.

5 "Residential consumer" means a residential tenant or
6 property owner who resides in the dwelling unit in which the
7 cost-effective renewable energy technology measure is installed
8 and operated.

9 **§269- Pay as you save model system for residential**
10 **consumers; established.** No later than March 1, 2007, the
11 commission shall adopt rules and procedures in accordance with
12 chapter 91 to monitor a public utility's pay as you save model
13 system program for residential consumers of electricity and gas
14 utilities as required under this part.

15 **§269- Gas and electric utilities; pay as you save model**
16 **system; established.** (a) No later than July 1, 2007, each
17 Hawaii gas and electric utility shall:

18 (1) Submit for approval by the commission a pay as you
19 save model system, including the proposed fee to
20 defray the costs of the program;

21 (2) Prepare and make available suitable agreements,
22 releases, and other necessary forms for residential



1 customers, landlords, capital providers, and vendors
2 to make use of the pay as you save model system;

3 (3) Determine the methodology for certifying energy
4 efficiency measures as appropriate for the intended
5 use and cost-effectiveness;

6 (4) Identify the capital providers who pay the up front
7 costs for these products, including vendors who
8 finance the sale and installation of their products;
9 and

10 (5) Prepare a plan to disseminate information concerning
11 the pay as you save model system to the public,
12 potential participating residential customers,
13 vendors, financing entities, and other interested
14 persons.

15 (b) The public utility may adopt the pay as you save model
16 as modified by this part or any program that meets the
17 objectives of this part.

18 (c) Payments made by utilities to administer the program
19 required under this part may be offset by charges to residential
20 consumers of renewable energy technology measures using the pay
21 as you save model system; provided that for each residential



1 consumer, this charge and all other program charges, except for
2 interest costs, shall not exceed:

3 (1) One-half of one per cent of the total cost of the
4 installed renewable energy technology product or
5 service for projects less than \$7,000; or

6 (2) One per cent of the total cost of projects greater
7 than \$7,000.

8 **§269- Certification of renewable energy technology**

9 **measures.** Only renewable energy technology measures certified
10 as being cost effective and appropriate may be purchased using
11 the pay as you save model fee. The utility may extend the term
12 of a pay as you save model fee to the original or successor
13 residential consumers at a location where permanent renewable
14 energy technology measures have been installed until all costs
15 for these measures have been recovered, including costs due to
16 repairs and missed payments.

17 **§269- Participation in the pay as you save program;**

18 **consumer contract simplification.** In the interest of reducing
19 transaction costs and simplifying the pay as you save model
20 system for residential consumers, if requested by a residential
21 consumer, an electric utility shall include gas saving measures
22 under its fee, or the gas utility shall include electricity



1 saving measures under its fee, so residential consumers who
2 purchase renewable energy technology products under this program
3 shall only have to sign one contract and pay a single pay as you
4 save model system fee charge."

5 SECTION 9. The commission shall ensure that all reasonable
6 costs incurred by gas or electric utilities to start up and
7 implement the pay as you save model system are recovered as part
8 of the utility's revenue requirement, including but not limited
9 to necessary billing system adjustments and any costs for pay as
10 you save model system efficiency measures that are not recovered
11 via participating residential consumers' pay as you save model
12 system bill payments or otherwise.

13 SECTION 10. Chapter 103D, Hawaii Revised Statutes, is
14 amended by adding a new section to be appropriately designated
15 and to read as follows:

16 "§103D- Biofuel preference. (a) Notwithstanding any
17 other law to the contrary, contracts for the purchase of diesel
18 fuel or boiler fuel shall be awarded to the lowest responsible
19 and responsive bidders, with preference given to bids for
20 biofuels or blends of biofuel and petroleum fuel.

21 (b) When purchasing fuel for use in diesel engines, the
22 preference shall be cents per gallon of one hundred per cent



1 biodiesel. For blends containing both biodiesel and petroleum-
2 based diesel, the preference shall be applied only to the
3 biodiesel portion of the blend.

4 (c) When purchasing fuel for use in boilers, the
5 preference shall be _____ cents per gallon of one hundred per cent
6 biofuel. For blends containing both biofuel and petroleum based
7 boiler fuel, the preference shall be applied only to the biofuel
8 portion of the blend.

9 (d) As used in this section, "biodiesel" means a vegetable
10 oil based fuel that meets ASTM International Standard D6751,
11 "Specification for Biodiesel Fuel Blend Stock (B100) for
12 Distillate Fuels", as amended.

13 (e) As used in this section, "biofuel" means fuel from
14 non-petroleum plant or animal based sources that can be used for
15 the generation of heat or power."

16 SECTION 11. Chapter 196A, Hawaii Revised Statutes, is
17 amended by adding a new section to be appropriately designated
18 and to read as follows:

19 "§196A- Hawaii renewable hydrogen program. (a) There
20 is established, within the department of business, economic
21 development, and tourism, a Hawaii renewable hydrogen program to
22 coordinate the State's transition to a renewable hydrogen



- 1 economy. The program shall plan, implement, and conduct
2 activities, including:
- 3 (1) Strategic partnerships with the private sector, the
4 federal government, national and international
5 organizations, such as national laboratories and
6 universities, other states, and Hawaii stakeholders
7 for research, development, testing, and deployment of
8 renewable hydrogen technologies;
 - 9 (2) Engineering and economic studies to define Hawaii's
10 potential for renewable hydrogen and evaluate near-
11 term project opportunities presented by the State's
12 available renewable resources;
 - 13 (3) Electric grid reliability and security projects that
14 will enable integration of extensive renewable
15 electricity on the island of Hawaii;
 - 16 (4) Hydrogen demonstration projects, including
17 infrastructure for the production, storage, and
18 refueling of hydrogen vehicles;
 - 19 (5) A statewide hydrogen economy public education and
20 outreach plan, focusing on the island of Hawaii, to be
21 developed in coordination with Hawaii's public
22 education institutions;

- 1 (6) The promotion of Hawaii's renewable hydrogen assets
2 and project opportunities to potential partners and
3 investors;
- 4 (7) A plan, for implementation during 2007-2010, to more
5 fully deploy hydrogen technologies and infrastructure
6 capable of supporting the island of Hawaii's fuel
7 needs, including:
- 8 (A) Expanded installation of hydrogen production
9 facilities;
- 10 (B) Development of integrated energy systems
11 including hydrogen vehicles;
- 12 (C) Construction of additional hydrogen refueling
13 stations; and
- 14 (D) Encouragement of building design and construction
15 that fully incorporates clean energy assets,
16 including reliance on hydrogen-fueled distributed
17 generation;
- 18 (8) A plan, for implementation during 2010-2020, to
19 transition the island of Hawaii to a hydrogen-fueled
20 economy by 2020, and to initiate that model throughout
21 the State; and



1 (9) An evaluation of policy instruments and development,
 2 in coordination with program partners, of policy
 3 recommendations to encourage the adoption of hydrogen-
 4 fueled vehicles, to continually replenish the hydrogen
 5 investment capital special fund, and to support
 6 investment in hydrogen infrastructure, including
 7 production, storage, and dispensing facilities."

8 SECTION 12. Chapter 211F, Hawaii Revised Statutes, is
 9 amended by adding a new section to be appropriately designated
 10 and to read as follows:

11 **"§211F- Hydrogen investment capital special fund. (a)**

12 There shall be established a hydrogen investment capital special
 13 fund into which shall be deposited:

- 14 (1) Appropriations made by the legislature to the fund;
- 15 (2) All contributions from public or private partners;
- 16 (3) All interest earned on or accrued to moneys deposited
 17 in the special fund; and
- 18 (4) Any other moneys made available to the special fund
 19 from other sources.

20 (b) Moneys in the fund shall be used:

- 1 (1) To seed private sector and federal projects for
- 2 research, development, testing, and deployment of
- 3 renewable hydrogen systems in Hawaii;
- 4 (2) To pay reasonable expenses incurred by fund advisory
- 5 board members in the execution of their relevant
- 6 duties; and
- 7 (3) For any other purpose deemed necessary to carry out
- 8 the purposes of this section.

9 (c) Investment of the hydrogen investment capital special
 10 fund in hydrogen projects shall be made with the advice and
 11 assistance of an advisory board of experts and knowledgeable
 12 individuals who shall be appointed by the director of the
 13 department of business, economic development, and tourism to
 14 help the State develop projects and partnerships with industry
 15 and the federal government."

16 SECTION 13. (a) There is appropriated out of the general
 17 revenues of the State of Hawaii the sum of \$, or so much
 18 thereof as may be necessary for fiscal year 2006-2007, to carry
 19 out the purposes of this part, of which \$ shall be
 20 allocated to three permanent full-time equivalent (3.0 FTE)
 21 professional positions namely, a hydrogen program manager,
 22 hydrogen program specialist, and hydrogen project specialist.

1 The sum appropriated shall be expended by the department of
2 business, economic development, and tourism.

3 (b) There is appropriated out of the general revenues of
4 the State of Hawaii the sum of \$, or so much thereof as
5 maybe necessary for fiscal year 2006-2007, to be paid into the
6 hydrogen investment capital special fund to carry out the
7 purposes of section 11.

8 The sum appropriated shall be expended by department of
9 business, economic development, and tourism.

10 SECTION 14. There is appropriated out of the hydrogen
11 investment capital special fund the sum of \$, or so
12 much thereof as may be necessary for fiscal year 2006-2007, to
13 be used for the purposes of the hydrogen investment capital
14 special fund.

15 The sum appropriated shall be expended by the department of
16 business, economic development, and tourism.

17 SECTION 15. This Act does not affect rights and duties
18 that matured, penalties that were incurred, and proceedings that
19 were begun, before its effective date.

20 SECTION 16. Statutory material to be repealed is bracketed
21 and stricken. New statutory material is underscored.

22 SECTION 17. This Act shall take effect on July 1, 2050.



SB2957, SD2

Report Title:

Tax Credit; Renewable Energy Technologies

Description:

Provides a framework for energy self-sufficiency, focusing on: increasing renewable energy tax credits; installing photovoltaic systems in public schools; enabling compliance with the State's greenhouse gas and energy efficiency goals; incorporating green building practices for state-funded facilities; establishing a pay as you save program for solar water heating systems; establishing a bio-diesel preference in the state procurement law; and establishing a Hawaii renewable hydrogen program and hydrogen investment capital special fund. (SD2)

