
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 but is not limited
18 to: establishing a net energy metering program, interconnection



1 standards, and renewable energy tax credits; establishing
2 greenhouse gas and energy consumption reduction goals for state
3 facilities and requiring the use of energy efficient products in
4 state facilities; and providing incentives for the deployment of
5 solar energy devices. The legislature also established an
6 enforceable renewable energy portfolio standard, under which
7 twenty per cent of Hawaii's electricity is to be generated from
8 renewable 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, wind-powered,
17 and photovoltaic energy systems and removing the tax
18 credits' 2008 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) Promoting the use of green building practices by
2 requiring each county agency that issues building,
3 construction, or development-related permits to
4 establish a procedure for priority processing of
5 permit applications for construction projects
6 incorporating Leadership in Energy and Environmental
7 Design building standards;
- 8 (4) Authorizing the issuance of general obligation bonds
9 to bring state facilities into compliance with the
10 purposes of Act 77, Session Laws of Hawaii 2002,
11 which, among other things, establishes greenhouse gas
12 and energy consumption reduction goals for state
13 facilities; and
- 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 This Act shall be called the Energy Self-Sufficiency Act of
19 2006.

20 PART I. RENEWABLE ENERGY TECHNOLOGIES INCOME TAX CREDIT

21 SECTION 2. Section 235-12.5, Hawaii Revised Statutes, is
22 amended as follows:



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

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

11 The tax credit may be claimed as follows:

12 (1) Solar thermal energy systems for:

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

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

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

21 (2) Wind-powered energy systems for:



- 1 (A) Single-family residential property: twenty per
2 cent of the actual cost or \$1,500, whichever is
3 less;
- 4 (B) Multi-family residential property: twenty per
5 cent of the actual cost or \$200 per unit,
6 whichever is less; and
- 7 (C) Commercial property: twenty per cent of the
8 actual cost or [~~\$250,000,~~] \$500,000, whichever is
9 less; and
- 10 (3) Photovoltaic energy systems for:
- 11 (A) Single-family residential property: thirty-five
12 per cent of the actual cost or [~~\$1,750,~~] \$5,000,
13 whichever is less;
- 14 (B) Multi-family residential property: thirty-five
15 per cent of the actual cost or \$350 per unit,
16 whichever is less; and
- 17 (C) Commercial property: thirty-five per cent of the
18 actual cost or [~~\$250,000,~~] \$500,000, whichever is
19 less;
- 20 provided that multiple owners of a single system shall be
21 entitled to a single tax credit; and provided further that the



1 tax credit shall be apportioned between the owners in proportion
2 to their contribution to the cost of the system.

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

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

10 "(c) ~~[The]~~ For taxable years beginning after December 31,
11 2005, the dollar amount of [any new federal energy tax credit
12 similar to the credit provided in this section that is
13 established after June 30, 2003, and] any utility rebate~~[7]~~
14 shall be deducted from the cost of the qualifying system and its
15 installation before applying the state tax credit."

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

18 "SECTION 4. This Act shall take effect on July 1, 2003~~[7~~
19 ~~and shall be repealed January 1, 2008]."~~

20 PART II. RENEWABLE ENERGY AND ENERGY EFFICIENCY

21 IN HAWAII'S PUBLIC SCHOOLS



1 SECTION 4. The director of finance is authorized to issue
2 general obligation bonds in the sum of \$5,000,000, 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 project sites shall be determined by the
8 department of education as most suitable in meeting the pilot
9 project's objectives. The project objectives are as follows:

- 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 the building 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.

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 PART III. ENERGY EFFICIENCY FOR STATE FACILITIES,
12 MOTOR VEHICLES, AND EQUIPMENT

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

16 "§196- Energy efficiency for state facilities and
17 vehicles. (a) Each agency is directed to implement, to the
18 extent possible, the following goals during planning and budget
19 preparation and during program implementation.

20 (b) With regard to buildings and facilities, each agency
21 shall:



- 1 (1) Design and construct buildings meeting United States
2 Green Building Council's leadership in energy and
3 environmental design standards. As appropriate for
4 the type of construction, the buildings should meet
5 leadership in energy and environmental design silver
6 certification for new commercial construction and
7 major renovation, leadership in energy and
8 environmental design for existing building operations,
9 and leadership in energy and environmental design for
10 commercial interiors; provided that if leadership in
11 energy and environmental design silver certification
12 is not possible, at minimum, commissioning and retro-
13 commissioning, as well as completion of the
14 appropriate leadership in energy and environmental
15 design checklist, shall be implemented following
16 leadership in energy and environmental design silver
17 standards for new construction and major renovation or
18 leadership in energy and environmental design for
19 existing building operations;
- 20 (2) Incorporate energy efficiency measures to prevent heat
21 gain in residential facilities of three stories and
22 below to provide R-19 or equivalent on roofs, R-11 or



1 equivalent in walls, and high-performance windows to
2 minimize heat gain and, if air conditioned, minimize
3 cool air loss. R-value is the constant time rate
4 resistance to heat flow through a unit area of a body
5 induced by a unit temperature difference between the
6 surfaces. R-values measure the thermal resistance of
7 building envelope components such as roof and walls.
8 The higher the R-value, the greater the resistance to
9 heat flow. Where possible, buildings shall be
10 oriented to maximize natural ventilation and day-
11 lighting without heat gain and to optimize solar for
12 water heating. This provision shall apply to new
13 residential facilities built using any portion of
14 state funds or located on state lands;

- 15 (3) Install solar water heating systems where it is cost-
16 effective, based on a comparative analysis to
17 determine the cost-benefit of using a conventional
18 water heating system or a solar water heating system.
19 The analysis shall be based on the projected life
20 cycle costs to purchase and operate the water heating
21 system. If the life cycle analysis is positive, the
22 facility shall incorporate solar water heating. If



1 water heating entirely by solar is not cost-effective,
2 the analysis shall evaluate the life cycle, cost-
3 benefit of solar water heating for preheating water.

4 If a multi-story building is centrally air
5 conditioned, heat recovery shall be employed as the
6 primary water heating system. Single family
7 residential clients of the department of Hawaiian home
8 lands and any agency or program that can take
9 advantage of utility rebates are exempted from this
10 requirement so they may continue to qualify for
11 utility rebates for solar water heating;

12 (4) Implement water and energy efficiency practices in
13 operations to reduce waste and increase conservation;

14 (5) Incorporate principles of waste minimization and
15 pollution prevention, such as reducing, revising, and
16 recycling as a standard operating practice in
17 programs, including programs for construction and
18 demolition of waste management and office paper and
19 packaging recycling programs;

20 (6) Use life cycle cost-benefit analysis to purchase
21 energy efficient equipment such as ENERGY STAR



- 1 products and use utility rebates where available to
2 reduce purchase and installation costs; and
- 3 (7) Procure environmentally preferable products, including
4 but not limited to, recycled and recycled-content,
5 bio-based, and other resource-efficient products and
6 materials.
- 7 (c) With regard to transportation fuel, each agency shall:
- 8 (1) Comply with title 10, Code of Federal Regulations,
9 part 490, subpart C, "Mandatory State Fleet Program",
10 if applicable;
- 11 (2) Comply with all applicable state laws regarding
12 vehicle purchases;
- 13 (3) Once federal and state vehicle purchase mandates have
14 been satisfied, purchase the most fuel-efficient
15 vehicles that meet the needs of their programs;
16 provided that life cycle cost-benefit analysis of
17 vehicle purchases shall include projected fuel costs;
- 18 (4) Purchase alternative fuels and ethanol blended
19 gasoline when available;
- 20 (5) Evaluate a purchase preference for biodiesel blends,
21 as applicable to agencies with diesel fuel purchases;



- 1 (6) Promote efficient operation of vehicles;
- 2 (7) Use the most appropriate minimum octane fuel; provided
3 that vehicles shall use 87-octane fuel unless the
4 owner's manual for the vehicle states otherwise or the
5 engine experiences knocking or pinging;
- 6 (8) Beginning with fiscal year 2005-2006 as the baseline,
7 collect and maintain, for the life of each vehicle
8 acquired, the following data:
- 9 (A) Vehicle acquisition cost;
- 10 (B) United States Environmental Protection Agency
11 rated fuel economy;
- 12 (C) Vehicle fuel configuration, such as gasoline,
13 diesel, flex-fuel gasoline/E85, and dedicated
14 propane;
- 15 (D) Actual in-use vehicle mileage;
- 16 (E) Actual in-use vehicle fuel consumption; and
- 17 (F) Actual in-use annual average vehicle fuel
18 economy; and
- 19 (9) Beginning with fiscal year 2005-2006 as the baseline
20 with respect to each agency that operates a fleet of
21 thirty or more vehicles, collect and maintain, in
22 addition to the data in paragraph (8), the following:



- 1 (A) Information on the vehicles in the fleet,
2 including vehicle year, make, model, gross
3 vehicle weight rating, and vehicle fuel
4 configuration;
- 5 (B) Fleet fuel usage, by fuel;
- 6 (C) Fleet mileage; and
- 7 (D) Overall annual average fleet fuel economy and
8 average miles per gallon of gasoline and diesel."

9 SECTION 6. Section 196-1, Hawaii Revised Statutes, is
10 amended to read as follows:

11 "**§196-1 Findings and declaration of necessity.** The
12 legislature finds that:

13 (1) [~~There is widespread shortage of~~] The global demand
14 for petroleum and its derivatives [~~which~~] has caused
15 severe economic hardships throughout the State and
16 [~~which~~] threatens to impair the public health, safety
17 and welfare.

18 [~~The current energy crisis is caused by a global~~
19 ~~energy shortage which will worsen through the~~
20 ~~remainder of this decade and may continue to the end~~
21 ~~of this century.~~] The State of Hawaii, with its total
22 dependence for energy on imported fossil fuel, is



1 particularly vulnerable to dislocations in the global
2 energy market. This is an anomalous situation, as
3 there are few places in the world so generously
4 endowed with natural energy: geothermal, solar
5 radiation, ocean temperature differential, wind,
6 waves, and currents--all potential non-polluting power
7 sources.

- 8 (2) There is a real need for strategic comprehensive
9 planning in the effort towards achieving full
10 utilization of Hawaii's energy resource programs and
11 the most effective allocation of energy resources
12 throughout the State. Planning is necessary and
13 desirable in order that the State may recognize and
14 declare the major problems and opportunities in the
15 field of energy resources. Both short-range and long-
16 range planning will permit the articulation of broad
17 policies, goals, and objectives; criteria for
18 measuring and evaluating accomplishments of
19 objectives; identification and implementation of
20 programs [~~which~~] that will carry out such objectives;
21 and a determination of requirements necessary for the
22 optimum development of Hawaii's energy resources.



1 Such planning efforts will identify present conditions
2 and major problems relating to energy resources, their
3 exploration, development, production, and
4 distribution. It will show the projected nature of
5 the situation and rate of change and present
6 conditions for the foreseeable future based on a
7 projection of current trends in the development of
8 energy resources in Hawaii.

9 (3) There are many agencies of the federal, state, and
10 county governments in Hawaii, as well as many private
11 agencies, engaged in, or expressing an interest in,
12 various aspects of the exploration, research,
13 distribution, conservation, and production of all
14 forms of energy resources in Hawaii. Some of these
15 agencies include the University of Hawaii, the
16 department of land and natural resources, the
17 department of business, economic development, and
18 tourism, the consumer protection, the federal energy
19 office, and various county agencies, as well as the
20 oil companies, gas stations, and other private
21 enterprises.



1 (4) There is immediate need to coordinate the efforts of
2 all these agencies, establish and coordinate programs
3 to effectuate the conservation of fuel, to provide for
4 the equitable distribution thereof, and to formulate
5 plans for the development and use of alternative
6 energy sources. There is a need for such coordination
7 so that there will be maximum conservation and
8 utilization of energy resources in the State."

9 SECTION 7. Section 196-18, Hawaii Revised Statutes, is
10 amended by amending subsections (a) and (b) to read as follows:

11 "(a) The coordinator shall appoint an advisory committee
12 consisting of representatives from:

13 (1) State agencies~~[+]~~, including but not limited to the
14 University of Hawaii;

15 ~~[(+2) County governments;~~

16 ~~+(3)]~~ (2) Energy service companies;

17 ~~[(+4)]~~ (3) Utility companies;

18 ~~[(+5)]~~ (4) Equipment manufacturers;

19 ~~[(+6)]~~ (5) Construction and architectural companies;

20 ~~[(+7)]~~ (6) Environmental, energy, and consumer groups; and

21 ~~[(+8)]~~ (7) Other energy-related organizations.



- 1 (b) The committee shall provide input on state energy
2 management, including how to:
- 3 (1) Improve the use of energy-savings performance
4 contracts and utility energy-efficiency service
5 contracts;
- 6 (2) Improve procurement of ENERGY STAR and other energy
7 efficient products;
- 8 (3) Improve building design;
- 9 (4) Reduce [~~process~~] energy use; [~~and~~]
- 10 (5) Enhance applications of efficient and renewable energy
11 technologies at state facilities[-];
- 12 (6) Establish benchmarks and evaluate the State's progress
13 in incorporating energy efficiency and conservation
14 for state facilities, vehicles, and equipment;
- 15 (7) Make recommendations on how and when to conduct
16 periodic energy audits; and
- 17 (8) Make recommendations to the legislature no later than
18 twenty days prior to the convening of each regular
19 session, starting with the 2008 regular session, for
20 policy or other statutory changes to carry out the
21 purposes of this chapter."



1 SECTION 8. Section 196-21, Hawaii Revised Statutes, is
2 amended as follows:

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

4 "(a) Agencies shall maximize their use of available
5 alternative financing contracting mechanisms, including energy-
6 savings [~~performance~~] contracts and utility energy-efficiency
7 service contracts, when life-cycle cost-effective, to reduce
8 energy use and cost in their facilities and operations. Energy-
9 savings contracts shall include but are not limited to:

10 (1) Energy-savings performance contracts;

11 (2) Municipal lease/purchase financing; and

12 (3) Utility energy efficiency service contracts.

13 Energy-savings [~~performance~~] contracts and utility energy-
14 efficiency service contracts shall provide significant
15 opportunities for making state facilities more energy efficient
16 at no net cost to taxpayers."

17 2. By amending subsection (c) to read as follows:

18 "(c) Notwithstanding any law to the contrary relating to
19 the award of public contracts, any agency desiring to enter into
20 an [~~energy performance~~] energy-savings contract shall do so in
21 accordance with the following provisions:



- 1 (1) The agency shall issue a public request for proposals,
2 advertised in the same manner as provided in chapter
3 103D, concerning the provision of energy efficiency
4 services or the design, installation, operation, and
5 maintenance of energy equipment, or both. The request
6 for proposals shall contain terms and conditions
7 relating to submission of proposals, evaluation, and
8 selection of proposals, financial terms, legal
9 responsibilities, and other matters as may be required
10 by law and as the agency determines appropriate;
- 11 (2) Upon receiving responses to the request for proposals,
12 the agency may select the most qualified proposal or
13 proposals on the basis of the experience and
14 qualifications of the proposers, the technical
15 approach, the financial arrangements, the overall
16 benefits to the agency, and other factors determined
17 by the agency to be relevant and appropriate;
- 18 (3) The agency thereafter may negotiate and enter into an
19 [~~energy performance~~] energy-savings contract with the
20 person or company whose proposal is selected as the
21 most qualified based on the criteria established by
22 the agency;



1 (4) The term of any [~~energy performance~~] energy-savings
2 contract entered into pursuant to this section shall
3 not exceed fifteen years;

4 (5) Any [~~energy performance~~] energy-savings contract may
5 provide that the agency ultimately shall receive title
6 to the energy system being financed under the
7 contract; and

8 (6) Any [~~energy performance~~] energy-savings contract shall
9 provide that total payments shall not exceed total
10 savings."

11 SECTION 9. Section 196-22, Hawaii Revised Statutes, is
12 amended to read as follows:

13 "**§196-22 State energy projects.** State energy projects may
14 be implemented under this chapter with the approval of the
15 comptroller and the director of finance. Notwithstanding
16 section 36-41 or 196-21, the comptroller or the senior agency
17 official of the department of accounting and general services,
18 along with the director of finance, may exempt a state energy
19 project from the advertising and competitive bidding
20 requirements of section 36-41 or 196-21 and chapter 103, if the
21 comptroller deems exemption appropriate for energy projects with
22 proprietary technology or necessary to meet the goals of the



1 legislature. In addition, this section shall be construed to
2 provide the greatest possible flexibility to agencies in
3 structuring agreements entered into so that economic benefits
4 and existing energy incentives may be used and maximized and
5 financing and other costs to agencies may be minimized. The
6 specific terms of [~~energy performance~~] energy-savings
7 contracting under section 36-41 may be altered if deemed
8 advantageous to the agency and approved by the director of
9 finance and the senior agency official."

10 SECTION 10. Section 196-23, Hawaii Revised Statutes, is
11 amended to read as follows:

12 "[~~§~~§196-23[~~]~~] **Energy efficient products.** (a) Agencies
13 shall select, where life-cycle cost-effective, ENERGY STAR and
14 other energy efficient products when acquiring energy-using
15 products. For product groups where ENERGY STAR labels are not
16 yet available, agencies may select products that are in the
17 upper twenty-five per cent of energy efficiency as designated by
18 the United States Department of Energy, Office of Energy
19 Efficiency and Renewable Energy, Federal Energy Management
20 Program.

21 Agencies shall incorporate energy efficient criteria
22 consistent with designated energy efficiency levels [~~into all~~



1 ~~guide specifications and project specifications developed for~~
2 ~~new construction and renovation, as well as]~~ into product
3 specification language developed for all purchasing procedures.

4 The State shall also consider the creation of financing
5 agreements with private sector suppliers to provide private
6 funding to offset higher up-front costs of efficient products.

7 ~~[(b) Agencies shall strive to meet the ENERGY STAR~~
8 ~~building criteria for energy performance and indoor~~
9 ~~environmental quality in their eligible facilities to the~~
10 ~~maximum extent practicable by December 31, 2005. Agencies may~~
11 ~~use energy savings performance contracts, utility energy-~~
12 ~~efficiency service contracts, or other means to conduct~~
13 ~~evaluations and make improvements to facilities. Facilities~~
14 ~~that rank in the top twenty-five per cent in energy efficiency~~
15 ~~relative to comparable commercial and state buildings shall~~
16 ~~receive the ENERGY STAR building label or its equivalent as~~
17 ~~determined by the coordinator. Agencies shall integrate this~~
18 ~~rating tool into their general facility audits.~~

19 ~~(c) The State shall employ sustainable design principles~~
20 ~~and agencies shall apply the principles to the siting, design,~~
21 ~~and construction of new facilities. Agencies shall optimize~~
22 ~~life-cycle costs, pollution, and other environmental and energy~~



1 ~~costs associated with the construction, life cycle operation,~~
2 ~~and decommissioning of the facility. Agencies shall consider~~
3 ~~using energy savings performance contracts or utility energy~~
4 ~~efficiency service contracts to aid them in constructing~~
5 ~~sustainably designed buildings.~~

6 ~~(d)]~~ (b) Agencies entering into leases, including the
7 renegotiation or extension of existing leases, shall incorporate
8 lease provisions that encourage energy and water efficiency
9 wherever life-cycle cost-effective. Build-to-suit lease
10 solicitations shall contain criteria encouraging sustainable
11 design and development, energy efficiency, and verification of
12 facility performance. Agencies shall include a preference for
13 facilities having an ENERGY STAR building label in their
14 selection criteria for acquiring leased facilities. In
15 addition, all agencies shall encourage lessors to apply for an
16 ENERGY STAR building label and to explore and implement projects
17 that will reduce costs to the State, including projects carried
18 out through the lessors' energy-savings [~~performance~~] contracts
19 [~~or utility energy efficiency service contracts~~].

20 [~~(e) Agencies shall implement energy reduction systems,~~
21 ~~and other highly efficient systems, in new construction or~~
22 ~~retrofit projects when life-cycle cost-effective. Agencies~~



1 ~~shall consider combined cooling, heat, and power systems when~~
2 ~~determined to be the most cost-effective when measured against~~
3 ~~other alternatives on a life cycle cost basis. Agencies shall~~
4 ~~survey local natural resources to optimize use of available~~
5 ~~solar, ocean thermal, biomass, bioenergy, geothermal, or other~~
6 ~~naturally occurring energy sources.~~

7 ~~(f) Agencies shall use off grid generation systems,~~
8 ~~including solar hot water, solar electric, solar outdoor~~
9 ~~lighting, small wind turbines, fuel cells, and other off grid~~
10 ~~alternatives, where such systems are life-cycle cost-effective~~
11 ~~and offer benefits including energy efficiency, pollution~~
12 ~~prevention, source energy reductions, avoided infrastructure~~
13 ~~costs, or expedited service.]"~~

14 SECTION 11. The director of finance is authorized to issue
15 general obligation bonds in the sum of \$25,000,000, or so much
16 thereof as may be necessary, and the same sum, or so much
17 thereof as may be necessary, is appropriated for fiscal year
18 2006-2007 for the purposes of carrying out the purposes of part
19 III of this Act regarding energy efficiency for state
20 facilities, vehicles, and equipment. The sum appropriated shall
21 be expended by the department of accounting and general
22 services.



1 SECTION 12. The director of finance is authorized to issue
2 general obligation bonds in the sum of \$25,000,000, 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 purposes of carrying out the purposes of part
6 III of this Act regarding energy efficiency for state
7 facilities, vehicles, and equipment. The sum appropriated shall
8 be expended by the department of education.

9 SECTION 13. There is appropriated out of the general
10 revenues of the State of Hawaii the sum of \$, or so much
11 thereof as may be necessary for fiscal year 2006-2007, for the
12 purpose of allocating one full-time energy efficiency
13 coordinator position to address energy efficiency in department
14 of education facilities. The sum appropriated shall be expended
15 by the department of education for the purposes of this section.

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

21 SECTION 15. Section 196-8, Hawaii Revised Statutes, is
22 repealed.



1 ~~["§196-8] Energy efficiency policy review and evaluation.~~

2 ~~(a) The energy resources coordinator shall ensure that review~~
3 ~~and evaluation comparable to those accomplished by the energy~~
4 ~~efficiency policy task force established pursuant to Act 163,~~
5 ~~Session Laws of Hawaii 1998, are undertaken, and that the~~
6 ~~findings and recommendations of the review and evaluation are~~
7 ~~reported to the legislature no later than twenty days prior to~~
8 ~~the convening of the regular session of 2007.~~

9 ~~(b) The review and evaluation shall include:~~

10 ~~(1) The efficacy of section 235-12.5 to determine whether~~
11 ~~the tax credits should be continued or enhanced based~~
12 ~~on impact and cost-benefit analyses or other public~~
13 ~~policy considerations;~~

14 ~~(2) Whether the energy technology systems eligible for tax~~
15 ~~credits under section 235-12.5 should be expanded,~~
16 ~~reduced, or remain the same; and~~

17 ~~(3) Any other issue regarding energy technology systems~~
18 ~~identified during the seven-year review.~~

19 ~~(c) The energy resources coordinator, in undertaking the~~
20 ~~review and evaluation, shall consult with representatives from:~~

21 ~~(1) The department of business, economic development, and~~
22 ~~tourism;~~



- 1 ~~(2) The solar, wind, and photovoltaic industries;~~
2 ~~(3) The utilities industry;~~
3 ~~(4) The building industry; and~~
4 ~~(5) Any other professional or public sector group the~~
5 ~~energy resources coordinator deems appropriate."]~~

6 SECTION 16. Section 196-12, Hawaii Revised Statutes, is
7 repealed.

8 ~~"[~~§196-12~~] ~~Greenhouse gases reduction goal.~~ Through~~
9 ~~life cycle cost effective energy measures, each agency shall~~
10 ~~reduce its greenhouse gas emissions attributed to facility~~
11 ~~energy use by thirty per cent by January 1, 2012, compared to~~
12 ~~emission levels in calendar year 1990. In order to encourage~~
13 ~~optimal investment in energy improvements, agencies may count~~
14 ~~greenhouse gas reductions from improvements in non-facility~~
15 ~~energy use toward this goal to the extent that these reductions~~
16 ~~are approved by the coordinator."]~~

17 SECTION 17. Section 196-13, Hawaii Revised Statutes, is
18 repealed.

19 ~~"[~~§196-13~~] ~~Energy efficiency improvement goals.~~ (a)~~
20 ~~Through life-cycle cost effective measures, each agency shall~~
21 ~~reduce energy consumption per gross square foot of its~~
22 ~~facilities, excluding laboratory facilities, by twenty per cent~~



1 ~~by January 1, 2007, and thirty per cent by January 1, 2012,~~
2 ~~relative to calendar year 1990. No facility shall be exempt~~
3 ~~from these goals unless it meets criteria for exemptions~~
4 ~~established by the coordinator.~~

5 ~~(b) Through life cycle cost effective measures, each~~
6 ~~agency shall reduce energy consumption per square foot, per unit~~
7 ~~of production, or per other unit as applicable, of its~~
8 ~~laboratory facilities by fifteen per cent by January 1, 2007,~~
9 ~~and twenty five per cent by January 1, 2012, relative to~~
10 ~~calendar year 1995. No facility shall be exempt from these~~
11 ~~goals unless it meets criteria for exemptions established by the~~
12 ~~coordinator.~~

13 ~~(c) Each agency shall strive to expand the use of~~
14 ~~renewable energy within its facilities and in its activities by~~
15 ~~implementing renewable energy projects and by purchasing~~
16 ~~electricity from renewable energy sources. Through life-cycle~~
17 ~~cost effective measures, each agency shall provide twenty per~~
18 ~~cent of its remaining energy requirements, after energy~~
19 ~~efficiency improvement goals have been achieved, with renewable~~
20 ~~energy resources.~~

21 ~~(d) Through life cycle cost effective measures, each~~
22 ~~agency shall reduce the use of petroleum generated energy within~~



1 ~~its facilities. Agencies may accomplish this reduction by~~
2 ~~switching to less greenhouse gas-intensive or renewable energy~~
3 ~~sources, by eliminating unnecessary fuel use, or by other~~
4 ~~appropriate methods. Where alternative fuels are not practical~~
5 ~~or life cycle cost effective, agencies shall strive to improve~~
6 ~~the efficiency of their facilities.~~

7 ~~(e) The State shall strive to reduce total energy use and~~
8 ~~associated greenhouse gas and other air emissions, as measured~~
9 ~~at the source. To that end, agencies shall undertake life cycle~~
10 ~~cost-effective projects in which source energy decreases, even~~
11 ~~if site energy use increases. In those cases, agencies shall~~
12 ~~receive credit toward energy reduction goals through guidelines~~
13 ~~established by the coordinator.~~

14 ~~(f) Through life-cycle cost-effective measures, agencies~~
15 ~~shall reduce water consumption and associated energy use in~~
16 ~~their facilities to reach the goals set under this part. Where~~
17 ~~possible, water cost savings and associated energy cost savings~~
18 ~~shall be included in energy-savings performance contracts and~~
19 ~~other financing mechanisms.~~

20 ~~(g) Each agency's biennial budget submission shall include~~
21 ~~funding necessary to achieve the goals of this part. Budget~~
22 ~~submissions shall include the costs associated with encouraging~~



1 ~~the use of, administering, and fulfilling agency~~
2 ~~responsibilities under energy savings performance contracts,~~
3 ~~utility energy efficiency service contracts, and other~~
4 ~~contractual provisions for achieving conservation goals~~
5 ~~implementing life cycle cost effective measures, procuring life-~~
6 ~~cycle cost-effective products, and constructing sustainably~~
7 ~~designed new buildings, among other energy costs.~~

8 ~~The director of finance shall issue guidelines to assist~~
9 ~~agencies in developing appropriate requests that support sound~~
10 ~~investments in energy improvements and energy-using products,~~
11 ~~and shall consider establishing a fund that agencies may draw on~~
12 ~~to finance exemplary energy management activities and~~
13 ~~investments with higher initial costs but lower life-cycle~~
14 ~~costs.~~

15 ~~(h) Each agency shall develop an annual implementation~~
16 ~~plan for fulfilling the requirements of this part. The plans~~
17 ~~shall be included in the annual reports to the coordinator."]~~

18 SECTION 18. Section 196-14, Hawaii Revised Statutes, is
19 repealed.

20 [~~["§196-14] Annual report. Beginning January 1, 2004,~~
21 ~~each agency shall measure and report annually to the coordinator~~
22 ~~on its progress in meeting the requirements of this part.~~



1 ~~The report shall include:~~

2 ~~(1) How the agency is using each of the strategies~~
3 ~~described in this part to help meet energy and~~
4 ~~greenhouse gas reduction goals;~~

5 ~~(2) A listing and explanation as to why certain~~
6 ~~strategies, if any, have not been used; and~~

7 ~~(3) A listing and explanation of exempt facilities."]~~

8 SECTION 19. Section 196-15, Hawaii Revised Statutes, is
9 repealed.

10 ~~["**§196-15 Senior agency official.** Each agency shall~~
11 ~~designate a senior official to be responsible for meeting the~~
12 ~~goals and requirements of this part, including preparation of~~
13 ~~the annual report. Designated officials shall participate in~~
14 ~~the interagency energy policy committee established under~~
15 ~~section 196-17(e)."~~]

16 SECTION 20. Section 196-16, Hawaii Revised Statutes, is
17 repealed.

18 ~~["**§196-16 Agency energy teams.** Each agency shall form a~~
19 ~~technical support team consisting of appropriate procurement,~~
20 ~~legal, budget, management, and technical representatives to~~
21 ~~expedite and encourage the agency's use of appropriations,~~
22 ~~energy savings performance contracts, and other alternative~~



1 ~~financing mechanisms necessary to meet the goals and~~
2 ~~requirements of this part. Agency energy team activities shall~~
3 ~~be undertaken in collaboration with each agency's representative~~
4 ~~to the interagency energy policy committee."]~~

5 SECTION 21. Section 196-17, Hawaii Revised Statutes, is
6 repealed.

7 ["~~§196-17~~ ~~Interagency coordination; policy committee.~~

8 ~~(a) The coordinator shall be responsible for evaluating each~~
9 ~~agency's progress in improving energy management and for~~
10 ~~submitting agency energy scorecards to the governor and the~~
11 ~~legislature to report progress.~~

12 ~~The coordinator, in consultation [with] other agencies,~~
13 ~~shall develop the agency energy scorecards and scoring system to~~
14 ~~evaluate each agency's progress in meeting the goals of this~~
15 ~~part. The scoring criteria shall include:~~

16 ~~(1) The extent to which agencies are taking advantage of~~
17 ~~key tools to save energy and reduce greenhouse gas~~
18 ~~emissions, such as energy savings performance~~
19 ~~contracts, utility energy efficiency service~~
20 ~~contracts, ENERGY STAR and other energy efficient~~
21 ~~products, renewable energy technologies, electricity~~



1 ~~from renewable energy sources, and other strategies~~
2 ~~and requirement;~~

3 ~~(2) Overall efficiency;~~

4 ~~(3) Greenhouse gas reduction; and~~

5 ~~(4) Use of other innovative energy efficiency practices.~~

6 ~~The scorecards shall be based on the annual energy reports~~
7 ~~submitted to the coordinator.~~

8 ~~(b) The coordinator shall be responsible for working with~~
9 ~~agencies to ensure that they meet the goals of this part and~~
10 ~~report their progress. The coordinator shall develop and issue~~
11 ~~guidelines for agencies' preparation of their annual reports to~~
12 ~~the coordinator on energy management. The coordinator shall~~
13 ~~also have primary responsibility for collecting and analyzing~~
14 ~~the data and shall ensure that agency reports are received in a~~
15 ~~timely manner.~~

16 ~~(c) There is established within the department of~~
17 ~~business, economic development, and tourism, an interagency~~
18 ~~energy policy committee consisting of senior agency officials,~~
19 ~~to be chaired by the coordinator. The committee shall be~~
20 ~~responsible for encouraging implementation of energy efficiency~~
21 ~~policies and practices. The major energy consuming agencies, as~~
22 ~~designated by the coordinator, shall participate on the~~



1 ~~committee. The committee shall communicate its activities to~~
2 ~~all designated senior agency officials to promote coordination~~
3 ~~and achievement of the goals of this part."]~~

4 SECTION 22. Section 196-20, Hawaii Revised Statutes, is
5 repealed.

6 ["~~§196-20 Facility energy audits. Agencies shall~~
7 ~~conduct energy and water audits for approximately ten per cent~~
8 ~~of their facilities each year, either independently or through~~
9 ~~energy savings performance contracts or utility energy~~
10 ~~efficiency service contracts."]~~

11 SECTION 23. Section 196-24, Hawaii Revised Statutes, is
12 repealed.

13 ["~~§196-24 Electricity use. To advance the greenhouse~~
14 ~~gas and renewable energy goals of this part, and reduce sourcee~~
15 ~~energy use, each agency shall strive to use electricity from~~
16 ~~clean, efficient, and renewable energy sources. An agency's~~
17 ~~efforts in purchasing electricity from efficient and renewable~~
18 ~~energy sources shall be taken into account in assessing the~~
19 ~~agency's progress and formulating its scorecard under section~~
20 ~~196-17(a)."~~]

21 SECTION 24. Section 196-25, Hawaii Revised Statutes, is
22 repealed.



1 [~~"[§196-25] Competition. Agencies shall take advantage of~~
2 ~~competitive opportunities in the electricity and natural gas~~
3 ~~markets to reduce costs and enhance services. Agencies are~~
4 ~~encouraged to aggregate demand across facilities or agencies to~~
5 ~~maximize their economic advantage."~~]

6 SECTION 25. Section 196-26, Hawaii Revised Statutes, is
7 repealed.

8 [~~"[§196-26] Reduced greenhouse gas intensity of electric~~
9 ~~power. When selecting electricity providers, agencies shall~~
10 ~~purchase electricity from sources that use high efficiency~~
11 ~~electric generating technologies when life cycle cost effective.~~
12 ~~Agencies shall consider the greenhouse gas intensity of the~~
13 ~~source of the electricity and strive to minimize the greenhouse~~
14 ~~gas intensity of purchased electricity."~~]

15 SECTION 26. Section 196-27, Hawaii Revised Statutes, is
16 repealed.

17 [~~"[§196-27] Purchasing electricity from renewable energy~~
18 ~~sources. Each agency shall evaluate its current use of~~
19 ~~electricity from renewable energy sources and report this level~~
20 ~~in its annual report to the coordinator. Based on this review,~~
21 ~~each agency shall adopt policies and pursue projects that~~
22 ~~increase the use of such electricity. Agencies shall include~~



1 ~~provisions for the purchase of electricity from renewable energy~~
2 ~~sources as a component of their requests for bids whenever~~
3 ~~procuring electricity. Agencies may use savings from energy~~
4 ~~efficiency projects to pay additional incremental costs of~~
5 ~~electricity from renewable energy sources.~~

6 ~~In evaluating opportunities to comply with this section,~~
7 ~~agencies shall consider any renewable portfolio standard~~
8 ~~specified in the restructuring guidelines for the State and the~~
9 ~~United States Environmental Protection Agency guidelines on~~
10 ~~crediting renewable energy power."]~~

11 SECTION 27. Section 196-28, Hawaii Revised Statutes, is
12 repealed.

13 ~~["**[§196-28] Mobile equipment.** Each agency shall seek to~~
14 ~~improve the design, construction, and operation of its mobile~~
15 ~~equipment, and shall implement all life cycle cost effective~~
16 ~~energy efficiency measures that result in cost savings while~~
17 ~~improving mission performance. To the extent that such measures~~
18 ~~are life cycle cost effective, agencies shall consider enhanced~~
19 ~~use of alternative or renewable based fuels."]~~

20 SECTION 28. Section 196-29, Hawaii Revised Statutes, is
21 repealed.



1 ~~["§196-29] Management strategies.~~ Agencies shall use the
2 following management strategies in meeting the goals of this
3 part:

4 (1) ~~Employee incentive programs to reward exceptional~~
5 ~~performance in implementing this part;~~

6 (2) ~~Performance evaluations of successful implementation~~
7 ~~of this part in areas such as energy savings~~
8 ~~performance contracts, sustainable design, energy~~
9 ~~efficient procurement, energy efficiency, water~~
10 ~~conservation, and renewable energy projects and~~
11 ~~performance evaluations of agency heads, members of~~
12 ~~the agency energy team, principal program managers,~~
13 ~~heads of field offices, facility managers, energy~~
14 ~~managers, and other appropriate employees;~~

15 (3) ~~Agencies shall be allowed to retain a portion of~~
16 ~~savings generated from efficient energy and water~~
17 ~~management and shall use the savings at the facility~~
18 ~~or site where the savings occur to provide greater~~
19 ~~incentives for that facility and its site managers to~~
20 ~~undertake more energy management initiatives, invest~~
21 ~~in renewable energy systems, and purchase electricity~~
22 ~~from renewable energy sources;~~



- 1 ~~(4) Training and education shall be provided for all~~
2 ~~appropriate personnel relating to the energy~~
3 ~~management strategies contained in this part,~~
4 ~~including the incorporation into existing procurement~~
5 ~~courses information on energy management tools,~~
6 ~~energy savings performance contracts, utility energy-~~
7 ~~efficiency service contracts, energy efficient~~
8 ~~products, and life cycle cost analysis; and~~
9 ~~(5) Agencies shall designate showcase facilities to~~
10 ~~highlight energy or water efficiency and renewable~~
11 ~~energy improvements."]~~

12 PART IV. COUNTY BUILDING PERMITS AND LEADERSHIP

13 IN ENERGY AND ENVIRONMENTAL DESIGN PRIORITY PROCESSING

14 SECTION 29. Chapter 46, Hawaii Revised Statutes, is
15 amended by adding a new section to be appropriately designated
16 and to read as follows:

17 "§46- County building permits; incorporation of
18 leadership in energy and environmental design building standards
19 in project design; priority processing. (a) Each county agency
20 that issues building, construction, or development related
21 permits shall establish a procedure for the priority processing
22 of a permit application submitted by a private entity for a



1 construction project that incorporates leadership in energy and
2 environmental design building standards into its project design.
3 The permit processing procedure shall give priority to private
4 sector permit applicants at no additional cost to the applicant.
5 Any priority permit processing procedure established by a county
6 pursuant to this section shall not imply or provide that any
7 permit application filed under the priority processing procedure
8 shall be automatically approved.

9 (b) For the purposes of this section:

10 "Leadership in energy and environmental design building
11 standards" means the green building rating system established by
12 the United States Green Building Council.

13 "Private entity" means any permit applicant that is not the
14 State, county, federal government, or any political subdivision
15 thereof."

16 PART V. SOLAR WATER HEATING PAY AS YOU SAVE

17 SECTION 30. **Solar water heating pay as you save program;**
18 **purpose; establishment; tariff filing.** (a) Solar water heating
19 systems are a renewable energy technology that utilizes solar
20 collectors placed on roofs to heat water. These systems
21 decrease reliance on imported oil used to generate electricity



1 or gas to heat water because they use less energy than the
2 electric or gas hot water heating systems replaced.

3 The legislature finds that the upfront cost of installation
4 is a barrier preventing many Hawaii residents from installing
5 solar water heating systems. The legislature further finds that
6 the renewable energy income tax credit and electric utility
7 rebates have not been enough of an incentive to overcome these
8 upfront costs, especially for rental housing and homes in need
9 of retrofit for these important energy saving devices.

10 The purpose of this section is to authorize the public
11 utilities commission to implement a pilot project to be called
12 the "solar water heating pay as you save program."

13 (b) The public utilities commission shall implement a
14 pilot project to be called the "solar water heating pay as you
15 save program", which shall:

16 (1) Allow a residential electric utility customer to
17 purchase a solar water heating system:

18 (A) With no upfront payments; and

19 (B) By paying the cost of the system over time on the
20 customer's electric or gas bill;



1 provided that the estimated electricity or gas savings
2 from the solar water heating system exceeds the cost
3 of the system;

4 (2) Provide for billing and payment of the solar water
5 heating system on the utility bill;

6 (3) Provide for disconnection of utility service for non-
7 payment of solar water heating system pay as you go
8 payments; and

9 (4) Allow for assignment of system repayment costs
10 attached to the meter location.

11 (c) The public utilities commission shall determine the
12 time frame of the pilot program and shall gather and analyze
13 information to evaluate the pilot program.

14 (d) No later than June 30, 2007, each electric utility
15 shall implement by tariff a pay as you save model system program
16 for residential consumers that is consistent with this section,
17 or a similar program for residential customers that meets the
18 objectives of this section. Each utility shall provide at least
19 six months' prior notice of its proposed tariff to the public
20 utilities commission as prescribed in section 269-12(b), Hawaii
21 Revised Statutes. Within the prescribed notice period, the
22 public utilities commission shall review the proposed tariff



1 and, after a hearing, may require modifications to the proposed
2 tariff as is necessary to comply with or effectuate the purposes
3 of this section.

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

12 SECTION 31. This Act does not affect rights and duties
13 that matured, penalties that were incurred, and proceedings that
14 were begun, before its effective date.

15 SECTION 32. Statutory material to be repealed is bracketed
16 and stricken. New statutory material is underscored.

17 SECTION 33. This Act shall take effect on July 1, 2006;
18 provided that section 2 of this Act shall apply to taxable years
19 beginning after December 31, 2005; and provided further that the
20 increased tax credits established in section 2 of this Act shall
21 be available only to eligible renewable energy technology
22 systems installed after July 1, 2006.



Report Title:

Energy Efficiency; Renewable Energy; Alternate Fuel

Description:

Provides a framework for energy self-sufficiency, focusing on energy efficiency and renewable energy resource deployment in state facilities, vehicles, and equipment; in the public schools; through the renewable energy technologies income tax credit; by means of priority permitting for renewable energy projects at the county level; and through the establishment of a solar water heating pay as you save program. (HB2175 HD1)

