

**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. (SB2957 HD1)



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# A BILL FOR AN ACT

RELATING TO ENERGY.

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

1 PART I

2 SECTION 1. The legislature finds that Hawaii's dependence  
3 on petroleum for about ninety per cent of its energy needs is  
4 more than any other state in the nation. This makes the State  
5 extremely vulnerable to any oil embargo, supply disruption,  
6 international market dysfunction, and many other factors beyond  
7 the control of the State. Furthermore, the continued  
8 consumption of conventional petroleum fuel negatively impacts  
9 the environment. At the same time, Hawaii has among the most  
10 abundant renewable energy resources in the world, in the form of  
11 solar, geothermal, wind, biomass, and ocean energy assets.

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



1 Over the years, the legislature has worked steadily to  
2 encourage the deployment of renewable energy resources and  
3 energy efficiency initiatives. This includes but is not limited  
4 to: establishing a net energy metering program, interconnection  
5 standards, and renewable energy tax credits; establishing  
6 greenhouse gas and energy consumption reduction goals for state  
7 facilities and requiring the use of energy efficient products in  
8 state facilities; and providing incentives for the deployment of  
9 solar energy devices. The legislature also established an  
10 enforceable renewable energy portfolio standard, under which  
11 twenty per cent of Hawaii's electricity is to be generated from  
12 renewable resources by the end of 2020.

13 There now exists an unprecedented, historical opportunity  
14 for Hawaii to emerge as a leader in the hydrogen economy.

15 Hydrogen technology development is already attracting  
16 billions of dollars in investment capital not only in the United  
17 States, but in other countries in Europe and Japan. On a  
18 national level, federal initiatives are resulting in the  
19 development of hydrogen and fuel cell technologies in  
20 partnership with automakers and major energy companies.  
21 Analysts predict that these initiatives, along with efforts in  
22 other countries, will lead to the development of markets for



1 hydrogen and supportive hydrogen fuel cell technologies and  
2 infrastructure. The question is no longer "if", but "when".

3 Locally, the historic confluence of the State's desire for  
4 energy self-sufficiency through development of renewable energy  
5 with the global opportunity of the emerging hydrogen economy  
6 calls for a major, far-sighted initiative, sustainable over the  
7 long-term, to develop Hawaii's renewable energy resources and,  
8 ultimately, to transition Hawaii to an indigenous-resource-based  
9 energy economy.

10 Right now, the greatest immediate opportunity to achieve  
11 this vision resides on the island of Hawaii.

12 On the island of Hawaii, more electricity is produced from  
13 renewable resources than can currently be utilized. Several  
14 wind projects are expected to be completed in the near term,  
15 exacerbating this problem. Furthermore, the Puna geothermal  
16 project is planning to increase its energy contribution, only if  
17 the electric utility can take and utilize the energy. This  
18 provides an opportunity to use excess geothermal and other  
19 renewable energy resources to produce hydrogen using water  
20 electrolysis. This clean, renewable hydrogen would then be used  
21 as an energy carrier for stationary power and transportation  
22 fuels, making the island self-sufficient.



1 Hydrogen could also be exported to Oahu and other islands  
2 as the clean fuel of choice for power generation and  
3 transportation fuels, achieving greater self-sufficiency for the  
4 State of Hawaii.

5 To shape Hawaii's energy future and achieve the goal of  
6 energy self-sufficiency for the State of Hawaii, our efforts  
7 must continue on all fronts, integrating new and evolving  
8 technologies, seizing upon economic opportunities to become more  
9 energy efficient and economically diversified, and providing  
10 incentives and assistance to address barriers.

11 The purpose of this Act is to provide a comprehensive  
12 approach to achieving energy self-sufficiency for the State by:

- 13 (1) Increasing the renewable energy technologies income  
14 tax credit for certain solar-thermal, wind-powered,  
15 and photovoltaic energy systems and removing the tax  
16 credits' 2008 sunset date;
- 17 (2) Authorizing the issuance of general obligation bonds  
18 to develop and implement a pilot project to install  
19 photovoltaic systems at public schools on the islands  
20 of Oahu, Hawaii, and Kauai and within the county of  
21 Maui;



1 (3) Replacing existing energy efficiency and environmental  
2 standards and procedures for state facilities,  
3 equipment, and vehicles with updated energy efficiency  
4 and environmental standards and procedures;

5 (3) Promoting the use of green building practices by  
6 requiring each county agency that issues building,  
7 construction, or development-related permits to  
8 establish a procedure for priority processing of  
9 permit applications for construction projects  
10 incorporating energy and environmentally efficient  
11 building standards;

12 (4) Establishing a program and strategy for increased  
13 hydrogen and biofuel research and use in the State;  
14 and

15 (5) Establishing the pay as you save pilot project to  
16 provide a financing mechanism to make purchases of  
17 residential solar hot water heater systems more  
18 affordable.

19 This Act shall be called the Energy Self-Sufficiency Act of  
20 2006.

21 PART II. RENEWABLE ENERGY TECHNOLOGIES INCOME TAX CREDIT



1 SECTION 2. Section 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 per unit,  
20 whichever is less; and

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



- 1 (2) Wind-powered energy systems for:
- 2 (A) Single-family residential property: twenty per  
3 cent of the actual cost or \$1,500, whichever is  
4 less;
- 5 (B) Multi-family residential property: twenty per  
6 cent of the actual cost or \$200 per unit,  
7 whichever is less; and
- 8 (C) Commercial property: twenty per cent of the  
9 actual cost or [~~\$250,000,~~] \$500,000, whichever is  
10 less; and
- 11 (3) Photovoltaic energy systems for:
- 12 (A) Single-family residential property: thirty-five  
13 per cent of the actual cost or [~~\$1,750,~~] \$5,000,  
14 whichever is less;
- 15 (B) Multi-family residential property: thirty-five  
16 per cent of the actual cost or \$350 per unit,  
17 whichever is less; and
- 18 (C) Commercial property: thirty-five per cent of the  
19 actual cost or [~~\$250,000,~~] \$500,000, whichever is  
20 less;
- 21 provided that multiple owners of a single system shall be  
22 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~~[,~~  
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~~[,~~  
19 ~~and shall be repealed January 1, 2008]."~~

20 PART III. 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 IV. PROMOTING RENEWABLE ENERGY AND ENERGY EFFICIENCY FOR  
12 STATE FACILITIES, 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 and environmental standards for  
17 state facilities and vehicles. (a) Each agency is directed to  
18 implement, to the extent possible, the following goals during  
19 planning and budget preparation and during program  
20 implementation.

21 (b) With regard to buildings and facilities, each agency  
22 shall comply with the following:



- 1        (1) Design and construct buildings meeting nationally  
2        recognized, consensus-based green building guidelines,  
3        standards, or systems as approved by the department of  
4        accounting and general services in consultation with  
5        the department of business, economic development, and  
6        tourism;
- 7        (2) Incorporate energy efficiency measures to prevent heat  
8        gain in residential facilities of three stories and  
9        below to provide R-19 or equivalent on roofs, R-11 or  
10       equivalent in walls, and high-performance windows to  
11       minimize heat gain and, if air conditioned, minimize  
12       cool air loss. R-value is the constant time rate  
13       resistance to heat flow through a unit area of a body  
14       induced by a unit temperature difference between the  
15       surfaces. R-values measure the thermal resistance of  
16       building envelope components such as roof and walls.  
17       The higher the R-value, the greater the resistance to  
18       heat flow. Where possible, buildings shall be  
19       oriented to maximize natural ventilation and day-  
20       lighting without heat gain and to optimize solar for  
21       water heating. This provision shall apply to new



1           residential facilities built using any portion of  
2           state funds or located on state lands;

3       (3) Install solar water heating systems where it is cost-  
4           effective, based on a comparative analysis to  
5           determine the cost-benefit of using a conventional  
6           water heating system or a solar water heating system.  
7           The analysis shall be based on the projected life  
8           cycle costs to purchase and operate the water heating  
9           system. If the life cycle analysis is positive, the  
10           facility shall incorporate solar water heating. If  
11           water heating entirely by solar is not cost-effective,  
12           the analysis shall evaluate the life cycle, cost-  
13           benefit of solar water heating for preheating water.  
14           If a multi-story building is centrally air  
15           conditioned, heat recovery shall be employed as the  
16           primary water heating system. Single family  
17           residential clients of the department of Hawaiian home  
18           lands and any agency or program that can take  
19           advantage of utility rebates are exempted from this  
20           requirement so they may continue to qualify for  
21           utility rebates for solar water heating;



- 1        (4) Implement water and energy efficiency practices in  
2        operations to reduce waste and increase conservation;
- 3        (5) Incorporate principles of waste minimization and  
4        pollution prevention, such as reducing, revising, and  
5        recycling as a standard operating practice in  
6        programs, including programs for construction and  
7        demolition of waste management and office paper and  
8        packaging recycling programs;
- 9        (6) Use life cycle cost-benefit analysis to purchase  
10       energy efficient equipment such as ENERGY STAR  
11       products and use utility rebates where available to  
12       reduce purchase and installation costs; and
- 13       (7) Procure environmentally preferable products, including  
14       but not limited to, recycled and recycled-content,  
15       bio-based, and other resource-efficient products and  
16       materials.
- 17       (c) With regard to transportation fuel, each agency shall:
- 18       (1) Comply with title 10, Code of Federal Regulations,  
19       part 490, subpart C, "Mandatory State Fleet Program",  
20       if applicable;
- 21       (2) Comply with all applicable state laws regarding  
22       vehicle purchases;



- 1       (3) Once federal and state vehicle purchase mandates have  
2       been satisfied, purchase the most fuel-efficient  
3       vehicles that meet the needs of their programs;  
4       provided that life cycle cost-benefit analysis of  
5       vehicle purchases shall include projected fuel costs;
- 6       (4) Purchase alternative fuels and ethanol blended  
7       gasoline when available;
- 8       (5) Evaluate a purchase preference for biodiesel blends,  
9       as applicable to agencies with diesel fuel purchases;
- 10       (6) Promote efficient operation of vehicles;
- 11       (7) Use the most appropriate minimum octane fuel; provided  
12       that vehicles shall use 87-octane fuel unless the  
13       owner's manual for the vehicle states otherwise or the  
14       engine experiences knocking or pinging;
- 15       (8) Beginning with fiscal year 2005-2006 as the baseline,  
16       collect and maintain, for the life of each vehicle  
17       acquired, the following data:
- 18       (A) Vehicle acquisition cost;
- 19       (B) United States Environmental Protection Agency  
20       rated fuel economy;



- 1           (C) Vehicle fuel configuration, such as gasoline,  
2           diesel, flex-fuel gasoline/E85, and dedicated  
3           propane;
- 4           (D) Actual in-use vehicle mileage;
- 5           (E) Actual in-use vehicle fuel consumption; and
- 6           (F) Actual in-use annual average vehicle fuel  
7           economy; and
- 8       (9) Beginning with fiscal year 2005-2006 as the baseline  
9       with respect to each agency that operates a fleet of  
10       thirty or more vehicles, collect and maintain, in  
11       addition to the data in paragraph (8), the following:
- 12           (A) Information on the vehicles in the fleet,  
13           including vehicle year, make, model, gross  
14           vehicle weight rating, and vehicle fuel  
15           configuration;
- 16           (B) Fleet fuel usage, by fuel;
- 17           (C) Fleet mileage; and
- 18           (D) Overall annual average fleet fuel economy and  
19           average miles per gallon of gasoline and diesel."

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





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

3           (1) ~~[There is widespread shortage of]~~ The global demand  
4 for petroleum and its derivatives ~~[which]~~ has caused  
5 severe economic hardships throughout the State and  
6 ~~[which]~~ threatens to impair the public health, safety  
7 and welfare.

8                     ~~[The current energy crisis is caused by a global~~  
9 ~~energy shortage which will worsen through the~~  
10 ~~remainder of this decade and may continue to the end~~  
11 ~~of this century.]~~ The State of Hawaii, with its total  
12 dependence for energy on imported fossil fuel, is  
13 particularly vulnerable to dislocations in the global  
14 energy market. This is an anomalous situation, as  
15 there are few places in the world so generously  
16 endowed with natural energy: geothermal, solar  
17 radiation, ocean temperature differential, wind,  
18 waves, and currents--all potential non-polluting power  
19 sources.

20           (2) There is a real need for strategic comprehensive  
21 planning in the effort towards achieving full  
22 utilization of Hawaii's energy resource programs and



1 the most effective allocation of energy resources  
2 throughout the State. Planning is necessary and  
3 desirable in order that the State may recognize and  
4 declare the major problems and opportunities in the  
5 field of energy resources. Both short-range and long-  
6 range planning will permit the articulation of broad  
7 policies, goals, and objectives; criteria for  
8 measuring and evaluating accomplishments of  
9 objectives; identification and implementation of  
10 programs [~~which~~] that will carry out such objectives;  
11 and a determination of requirements necessary for the  
12 optimum development of Hawaii's energy resources.  
13 Such planning efforts will identify present conditions  
14 and major problems relating to energy resources, their  
15 exploration, development, production, and  
16 distribution. It will show the projected nature of  
17 the situation and rate of change and present  
18 conditions for the foreseeable future based on a  
19 projection of current trends in the development of  
20 energy resources in Hawaii.

- 21 (3) There are many agencies of the federal, state, and  
22 county governments in Hawaii, as well as many private



1 agencies, engaged in, or expressing an interest in,  
2 various aspects of the exploration, research,  
3 distribution, conservation, and production of all  
4 forms of energy resources in Hawaii. Some of these  
5 agencies include the University of Hawaii, the  
6 department of land and natural resources, the  
7 department of business, economic development, and  
8 tourism, the consumer protection, the federal energy  
9 office, and various county agencies, as well as the  
10 oil companies, gas stations, and other private  
11 enterprises.

12 (4) There is immediate need to coordinate the efforts of  
13 all these agencies, establish and coordinate programs  
14 to effectuate the conservation of fuel, to provide for  
15 the equitable distribution thereof, and to formulate  
16 plans for the development and use of alternative  
17 energy sources. There is a need for such coordination  
18 so that there will be maximum conservation and  
19 utilization of energy resources in the State."

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



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

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

5           ~~[+2] County governments;~~

6           ~~+3]~~ (2) Energy service companies;

7           ~~[+4]~~ (3) Utility companies;

8           ~~[+5]~~ (4) Equipment manufacturers;

9           ~~[+6]~~ (5) Construction and architectural companies;

10          ~~[+7]~~ (6) Environmental, energy, and consumer groups; and

11          ~~[+8]~~ (7) Other energy-related organizations.

12          (b) The committee shall provide input on state energy  
13 management, including how to:

14          (1) Improve the use of energy-savings performance  
15             contracts and utility energy-efficiency service  
16             contracts;

17          (2) Improve procurement of ENERGY STAR and other energy  
18             efficient products;

19          (3) Improve building design;

20          (4) Reduce [~~process~~] energy use; [~~and~~]

21          (5) Enhance applications of efficient and renewable energy  
22             technologies at state facilities~~[+]~~;



- 1       (6) Establish benchmarks and evaluate the State's progress  
2       in incorporating energy efficiency and conservation  
3       for state facilities, vehicles, and equipment;  
4       (7) Make recommendations on how and when to conduct  
5       periodic energy audits; and  
6       (8) Make recommendations to the legislature no later than  
7       twenty days prior to the convening of each regular  
8       session, starting with the 2008 regular session, for  
9       policy or other statutory changes to carry out the  
10       purposes of this chapter."

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

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

14       "(a) Agencies shall maximize their use of available  
15 alternative financing contracting mechanisms, including energy-  
16 savings [~~performance~~] contracts and utility energy-efficiency  
17 service contracts, when life-cycle cost-effective, to reduce  
18 energy use and cost in their facilities and operations. Energy-  
19 savings contracts shall include but are not limited to:

- 20       (1) Energy-savings performance contracts;  
21       (2) Municipal lease/purchase financing; and  
22       (3) Utility energy efficiency service contracts.



1 Energy-savings [~~performance~~] contracts [~~and utility energy~~  
2 ~~efficiency service contracts~~] shall provide significant  
3 opportunities for making state facilities more energy efficient  
4 at no net cost to taxpayers."

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

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

- 10 (1) The agency shall issue a public request for proposals,  
11 advertised in the same manner as provided in chapter  
12 103D, concerning the provision of energy efficiency  
13 services or the design, installation, operation, and  
14 maintenance of energy equipment, or both. The request  
15 for proposals shall contain terms and conditions  
16 relating to submission of proposals, evaluation, and  
17 selection of proposals, financial terms, legal  
18 responsibilities, and other matters as may be required  
19 by law and as the agency determines appropriate;
- 20 (2) Upon receiving responses to the request for proposals,  
21 the agency may select the most qualified proposal or  
22 proposals on the basis of the experience and



1           qualifications of the proposers, the technical  
2           approach, the financial arrangements, the overall  
3           benefits to the agency, and other factors determined  
4           by the agency to be relevant and appropriate;

5           (3) The agency thereafter may negotiate and enter into an  
6           ~~[energy performance]~~ energy-savings contract with the  
7           person or company whose proposal is selected as the  
8           most qualified based on the criteria established by  
9           the agency;

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

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

17          (6) Any ~~[energy performance]~~ energy-savings contract shall  
18          provide that total payments shall not exceed total  
19          savings."

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



1           "**§196-22 State energy projects.** State energy projects may  
2 be implemented under this chapter with the approval of the  
3 comptroller and the director of finance. Notwithstanding  
4 section 36-41 or 196-21, the comptroller or the senior agency  
5 official of the department of accounting and general services,  
6 along with the director of finance, may exempt a state energy  
7 project from the advertising and competitive bidding  
8 requirements of section 36-41 or 196-21 and chapter 103, if the  
9 comptroller deems exemption appropriate for energy projects with  
10 proprietary technology or necessary to meet the goals of the  
11 legislature. In addition, this section shall be construed to  
12 provide the greatest possible flexibility to agencies in  
13 structuring agreements entered into so that economic benefits  
14 and existing energy incentives may be used and maximized and  
15 financing and other costs to agencies may be minimized. The  
16 specific terms of [~~energy performance~~] energy-savings  
17 contracting under section 36-41 may be altered if deemed  
18 advantageous to the agency and approved by the director of  
19 finance and the senior agency official."

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





1           "~~[+]~~**S196-23**~~[+]~~ **Energy efficient products.** (a) Agencies  
2 shall select, where life-cycle cost-effective, ENERGY STAR and  
3 other energy efficient products when acquiring energy-using  
4 products. For product groups where ENERGY STAR labels are not  
5 yet available, agencies may select products that are in the  
6 upper twenty-five per cent of energy efficiency as designated by  
7 the United States Department of Energy, Office of Energy  
8 Efficiency and Renewable Energy, Federal Energy Management  
9 Program.

10           Agencies shall incorporate energy efficient criteria  
11 consistent with designated energy efficiency levels [~~into all~~  
12 ~~guide specifications and project specifications developed for~~  
13 ~~new construction and renovation, as well as~~] into product  
14 specification language developed for all purchasing procedures.

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

18           ~~[(b) Agencies shall strive to meet the ENERGY STAR~~  
19 ~~building criteria for energy performance and indoor~~  
20 ~~environmental quality in their eligible facilities to the~~  
21 ~~maximum extent practicable by December 31, 2005. Agencies may~~  
22 ~~use energy-savings performance contracts, utility energy-~~



1 ~~efficiency service contracts, or other means to conduct~~  
2 ~~evaluations and make improvements to facilities. Facilities~~  
3 ~~that rank in the top twenty five per cent in energy efficiency~~  
4 ~~relative to comparable commercial and state buildings shall~~  
5 ~~receive the ENERGY STAR building label or its equivalent as~~  
6 ~~determined by the coordinator. Agencies shall integrate this~~  
7 ~~rating tool into their general facility audits.~~

8 ~~(c) The State shall employ sustainable design principles~~  
9 ~~and agencies shall apply the principles to the siting, design,~~  
10 ~~and construction of new facilities. Agencies shall optimize~~  
11 ~~life cycle costs, pollution, and other environmental and energy~~  
12 ~~costs associated with the construction, life cycle operation,~~  
13 ~~and decommissioning of the facility. Agencies shall consider~~  
14 ~~using energy savings performance contracts or utility energy-~~  
15 ~~efficiency service contracts to aid them in constructing~~  
16 ~~sustainably designed buildings.~~

17 ~~(d)]~~ (b) Agencies entering into leases, including the  
18 renegotiation or extension of existing leases, shall incorporate  
19 lease provisions that encourage energy and water efficiency  
20 wherever life-cycle cost-effective. Build-to-suit lease  
21 solicitations shall contain criteria encouraging sustainable  
22 design and development, energy efficiency, and verification of



1 facility performance. Agencies shall include a preference for  
2 facilities having an ENERGY STAR building label in their  
3 selection criteria for acquiring leased facilities. In  
4 addition, all agencies shall encourage lessors to apply for an  
5 ENERGY STAR building label and to explore and implement projects  
6 that will reduce costs to the State, including projects carried  
7 out through the lessors' energy-savings [~~performance~~] contracts  
8 [~~or utility energy efficiency service contracts~~].

9 ~~[(e) Agencies shall implement energy reduction systems,~~  
10 ~~and other highly efficient systems, in new construction or~~  
11 ~~retrofit projects when life cycle cost effective. Agencies~~  
12 ~~shall consider combined cooling, heat, and power systems when~~  
13 ~~determined to be the most cost effective when measured against~~  
14 ~~other alternatives on a life cycle cost basis. Agencies shall~~  
15 ~~survey local natural resources to optimize use of available~~  
16 ~~solar, ocean thermal, biomass, bioenergy, geothermal, or other~~  
17 ~~naturally occurring energy sources.~~

18 ~~(f) Agencies shall use off-grid generation systems,~~  
19 ~~including solar hot water, solar electric, solar outdoor~~  
20 ~~lighting, small wind turbines, fuel cells, and other off-grid~~  
21 ~~alternatives, where such systems are life cycle cost effective~~  
22 ~~and offer benefits including energy efficiency, pollution~~



1 ~~prevention, source energy reductions, avoided infrastructure~~  
2 ~~costs, or expedited service.]"~~

3 SECTION 11. The director of finance is authorized to issue  
4 general obligation bonds in the sum of \$25,000,000, or so much  
5 thereof as may be necessary, and the same sum, or so much  
6 thereof as may be necessary, is appropriated for fiscal year  
7 2006-2007 for the purposes of carrying out the purposes of this  
8 part regarding energy efficiency for state facilities, vehicles,  
9 and equipment.

10 The sum appropriated shall be expended by the department of  
11 accounting and general services.

12 SECTION 12. The director of finance is authorized to issue  
13 general obligation bonds in the sum of \$25,000,000, or so much  
14 thereof as may be necessary, and the same sum, or so much  
15 thereof as may be necessary, is appropriated for fiscal year  
16 2006-2007 for the purposes of carrying out the purposes of part  
17 III of this Act regarding energy efficiency for state  
18 facilities, vehicles, and equipment.

19 The sum appropriated shall be expended by the department of  
20 education.

21 SECTION 13. There is appropriated out of the general  
22 revenues of the State of Hawaii the sum of \$ , or so much



1 thereof as may be necessary for fiscal year 2006-2007, for the  
2 purpose of allocating one full-time energy efficiency  
3 coordinator position to address energy efficiency in department  
4 of education facilities.

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

7 SECTION 14. There is appropriated out of the general  
8 revenues of the State of Hawaii the sum of \$ , or so much  
9 thereof as may be necessary for fiscal year 2006-2007, for the  
10 purpose of allocating one full-time energy efficiency  
11 coordinator position to address energy efficiency in department  
12 of business, economic development, and tourism facilities.

13 The sum appropriated shall be expended by the department of  
14 business, economic development, and tourism for the purposes of  
15 this section.

16 SECTION 15. 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 16. 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 17. 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 18. 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 19. 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 20. 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 21. 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 22. 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 23. 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 24. 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 25. 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 26. 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 27. 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 28. 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 29. 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 V. ENERGY-EFFICIENT VEHICLES

13           SECTION 30. Section 103D-412, Hawaii Revised Statutes, is  
14 amended to read as follows:

15           "~~§103D-412 [Highly energy-efficient] Energy-efficient~~  
16 ~~vehicles.~~ (a) The procurement policy for all agencies  
17 purchasing or leasing motor [~~fleets~~] vehicles shall be to obtain  
18 [~~alternative fuel~~] energy-efficient vehicles. [~~Beginning~~  
19 ~~January 1, 2006, all state agencies~~] All covered fleets are  
20 directed to procure increasing percentages of [~~alternative fuel~~]  
21 energy-efficient vehicles as part of their annual vehicle  
22 acquisition plans, which shall be as follows:



- 1 (1) [~~By January 1, 2007,~~] In the fiscal year beginning  
2 July 1, 2006, at least twenty per cent of newly  
3 purchased light-duty vehicles acquired by each  
4 [~~agency~~] covered fleet shall be [~~alternative fuel~~]  
5 energy-efficient vehicles;
- 6 (2) In the fiscal year beginning July 1, 2007, at least  
7 thirty per cent of newly purchased light-duty vehicles  
8 acquired by each covered fleet shall be energy-  
9 efficient vehicles;
- 10 [~~(2)~~] ~~By January 1, 2009,~~ (3) In the fiscal year beginning  
11 July 1, 2008, at least forty per cent of newly  
12 purchased light-duty vehicles acquired by each  
13 [~~agency~~] covered fleet shall be [~~alternative fuel~~]  
14 energy-efficient vehicles; and
- 15 [~~(3)~~] (4) For each subsequent fiscal year [~~subsequent to~~  
16 ~~January 1, 2009,~~], the percentage of [~~alternative fuel~~]  
17 energy-efficient vehicles newly purchased shall be  
18 five percentage points higher than the previous year,  
19 until at least [~~sixty~~] seventy-five per cent of each  
20 [~~agency's~~] covered fleet's newly purchased, light-duty  
21 vehicles are [~~alternative fuel~~] energy-efficient  
22 vehicles.



1 (b) For purposes of this section:

2 "Agency" means a state agency, office, or department.

3 "Alternative fuel" has the same meaning as contained in 10  
4 Code of Federal Regulations part 490.

5 "Covered fleet" has the same meaning as contained in 10  
6 Code of Federal Regulations part 490 subpart C.

7 [~~"Alternative fuel"~~] "Energy-efficient vehicle" means a  
8 vehicle that:

9 (1) Is capable of using an alternative fuel;

10 [~~(1)~~] (2) Is powered primarily through the use of an  
11 electric battery or battery pack that stores energy  
12 produced by an electric motor through regenerative  
13 braking to assist in vehicle operation;

14 [~~(2)~~] (3) Is propelled by power derived from one or more  
15 cells converting chemical energy directly into  
16 electricity by combining oxygen with hydrogen fuel  
17 that is stored on board the vehicle in any form; [~~or~~]

18 [~~(3)~~] (4) Draws propulsion energy from onboard sources of  
19 stored energy generated from an internal combustion or  
20 heat engine using combustible fuel and a rechargeable  
21 energy storage system[~~-~~]; or



1        (5) Is on the list of "Most Energy Efficient Vehicles" in  
2        its class or is in the top one-fifth of the most  
3        energy-efficient vehicles in its class available in  
4        Hawaii, as shown by vehicle fuel efficiency lists,  
5        rankings, or reports maintained by the United States  
6        Environmental Protection Agency.

7        "Excluded vehicles" has the same meaning as contained in 10  
8        Code of Federal Regulations part 490.

9        "Light duty vehicle" has the same meaning as contained in  
10       10 Code of Federal Regulations part 490.

11       (c) Agencies may offset the purchase requirements for  
12       [~~alternative fuel~~] energy-efficient vehicles by successfully  
13       demonstrating percentage improvements in overall light-duty  
14       vehicle fleet mileage economy. The offsets shall be measured  
15       against the fleet average [~~mileage economy~~] miles per gallon of  
16       petroleum-based gasoline and diesel fuel, using [calendar year  
17       2004] the fiscal year beginning July 1, 2006, as a baseline, on  
18       a percentage-by-percentage basis.

19       (d) Agencies that use biodiesel fuel may offset the  
20       vehicle purchase requirements of this section at the rate of one  
21       vehicle for each four hundred fifty gallons of neat biodiesel



1 fuel used. Neat biodiesel fuel is one hundred per cent  
2 biodiesel (B100) by volume.

3 (e) Agencies may apply to the procurement officer for  
4 exemptions from the requirements of this section to the extent  
5 that the vehicles required by this section are not available or  
6 do not meet the specific needs of the agency.

7 (f) Vehicles acquired from another state agency and  
8 excluded vehicles are exempt from the requirements of this  
9 section.

10 (g) Nothing in this section is intended to interfere with  
11 an agency's ability to comply with federally-imposed vehicle  
12 purchase mandates such as those required by 10 Code of Federal  
13 Regulations part 490 subpart C."

14 PART VI. COUNTY BUILDING PERMITS AND  
15 ENERGY AND ENVIRONMENTAL EFFICIENT DESIGN PRIORITY PROCESSING  
16 SECTION 31. Chapter 46, Hawaii Revised Statutes, is  
17 amended by adding a new section to be appropriately designated  
18 and to read as follows:

19 **"§46- County building permits; incorporation of energy**  
20 **and environmental design building standards in project design;**  
21 **priority processing.** (a) Each county agency that issues  
22 building, construction, or development related permits shall



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

11 (b) For the purposes of this section:

12 "Energy and environmental design building standards" means  
13 nationally recognized consensus-based green building guidelines,  
14 standards, or systems as recommended by the American Institute  
15 of Architects Hawaii State Council.

16 "Private entity" means any permit applicant that is not the  
17 State, a county, the federal government, or any political  
18 subdivision thereof."

19 PART VII. RENEWABLE ENERGY RESEARCH AND DEVELOPMENT AND  
20 TRANSITION INTO A RENEWABLE HYDROGEN ECONOMY



1 SECTION 32. Chapter 103D, Hawaii Revised Statutes, is  
2 amended by adding a new section to be appropriately designated  
3 and to read as follows:

4 "§103D- Biofuel preference. (a) Notwithstanding any  
5 other law to the contrary, contracts for the purchase of diesel  
6 fuel or boiler fuel shall be awarded to the lowest responsible  
7 and responsive bidders, with preference given to bids for  
8 biofuels or blends of biofuel and petroleum fuel.

9 (b) When purchasing fuel for use in diesel engines, the  
10 preference shall be \_\_\_\_\_ cents per gallon of one hundred per  
11 cent biodiesel. For blends containing both biodiesel and  
12 petroleum-based diesel, the preference shall be applied only to  
13 the biodiesel portion of the blend.

14 (c) When purchasing fuel for use in boilers, the  
15 preference shall be \_\_\_\_\_ cents per gallon of one hundred per  
16 cent biofuel. For blends containing both biofuel and petroleum  
17 based boiler fuel, the preference shall be applied only to the  
18 biofuel portion of the blend.

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





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

4       SECTION 33. Chapter 196, Hawaii Revised Statutes, is  
5 amended by adding a new section to be appropriately designated  
6 and to read as follows:

7       "§196-A Hawaii renewable hydrogen program. There is  
8 established, within the department of business, economic  
9 development, and tourism, a Hawaii renewable hydrogen program to  
10 manage the State's transition to a renewable hydrogen economy.  
11 The program shall design, implement, and administer activities  
12 that shall include:

13       (1) Strategic partnerships for the research, development,  
14 testing, and deployment of renewable hydrogen  
15 technologies;

16       (2) Engineering and economic evaluations of Hawaii's  
17 potential for renewable hydrogen use and near-term  
18 project opportunities for the State's renewable energy  
19 resources;

20       (3) Electric grid reliability and security projects that  
21 will enable the integration of a substantial increase



- 1           of electricity from renewable energy resources on the  
2           island of Hawaii;
- 3       (4) Hydrogen demonstration projects, including  
4           infrastructure for the production, storage, and  
5           refueling of hydrogen vehicles;
- 6       (5) A statewide hydrogen economy public education and  
7           outreach plan focusing on the island of Hawaii, to be  
8           developed in coordination with Hawaii's public  
9           education institutions;
- 10      (6) Promotion of Hawaii's renewable hydrogen resources to  
11           potential partners and investors;
- 12      (7) A plan, for implementation during the years 2007 to  
13           2010, to more fully deploy hydrogen technologies and  
14           infrastructure capable of supporting the island of  
15           Hawaii's energy needs, including:
- 16           (A) Expanded installation of hydrogen production  
17                facilities;
- 18           (B) Development of integrated energy systems,  
19                including hydrogen vehicles;
- 20           (C) Construction of additional hydrogen refueling  
21                stations; and



- 1            (D) Promotion of building design and construction  
2            that fully incorporates clean energy assets,  
3            including reliance on hydrogen-fueled energy  
4            generation;
- 5            (8) A plan, for implementation during the years 2010 to  
6            2020, to transition the island of Hawaii to a  
7            hydrogen-fueled economy and to extend the application  
8            of the plan throughout the State; and
- 9            (9) Evaluation of policy recommendations to:
- 10           (A) Encourage the adoption of hydrogen-fueled  
11           vehicles;
- 12           (B) Continually fund the hydrogen technologies  
13           special fund; and
- 14           (C) Support investment in hydrogen infrastructure,  
15           including production, storage, and dispensing  
16           facilities."

17           SECTION 34. Chapter 211F, Hawaii Revised Statutes, is  
18           amended by adding a new section to be appropriately designated  
19           and to read as follows:

20           **"§211F-A Hydrogen investment capital special fund. (a)**  
21           There shall be established the hydrogen investment capital  
22           special fund into which shall be deposited:



- 1       (1) Appropriations made by the legislature to the fund;  
2       (2) All contributions from public or private partners;  
3       (3) All interest earned on or accrued to moneys deposited  
4       in the special fund; and  
5       (4) Any other moneys made available to the special fund  
6       from other sources.  
7       (b) Moneys in the fund shall be used to:  
8       (1) Provide seed capital for and venture capital  
9       investments in private sector and federal projects for  
10       research, development, testing, and implementation of  
11       the Hawaii renewable hydrogen program, as set forth in  
12       section 196-A; and  
13       (2) For any other purpose deemed necessary to carry out  
14       the purposes of this section."

15       SECTION 35. There is appropriated out of the general  
16 revenues of the State of Hawaii the sum of \$200,000, or so much  
17 thereof as may be necessary for fiscal year 2006-2007, to  
18 conduct a statewide multi-fuel biofuels production assessment of  
19 potential feedstocks, technologies, and economics of the various  
20 renewable fuels pathways and the potential for ethanol,  
21 biodiesel, and renewable hydrogen production to contribute to  
22 Hawaii's near-, mid-, and long-term energy needs.



1           The sum appropriated shall be expended by the department of  
2 business, economic development, and tourism for the purposes of  
3 this section.

4           SECTION 36. There is appropriated out of the general  
5 revenues of the State of Hawaii the sum of \$150,000, or so much  
6 thereof as may be necessary, for fiscal year 2006-2007, to  
7 provide assistance to the agricultural community interested in  
8 developing energy projects, especially for the production of  
9 biodiesel from energy crops and cellulosic ethanol from  
10 agricultural waste streams, and to seek funding that may be  
11 available from the United States Departments of Agriculture and  
12 Energy, and other external sources.

13           The sum appropriated shall be expended by the department of  
14 agriculture for the purposes of this section.

15           SECTION 37. There is appropriated out of the general  
16 revenues of the State of Hawaii the sum of \$           , or so much  
17 thereof as may be necessary for fiscal year 2006-2007, for the  
18 Hawaii renewable hydrogen program, pursuant to section 196-A,  
19 Hawaii Revised Statutes.

20           The sum appropriated shall be expended by the department of  
21 business, economic development, and tourism for the purposes of  
22 this part.



1 SECTION 38. There is appropriated out of the general  
2 revenues of the State of Hawaii the sum of \$10,000,000, or so  
3 much thereof as may be necessary for fiscal year 2006-2007, to  
4 be deposited into the hydrogen investment capital special fund.

5 The sum appropriated shall be expended by the department of  
6 business, economic development, and tourism for the purposes of  
7 this part.

8 SECTION 39. There is appropriated out of the hydrogen  
9 investment capital special fund the sum of \$10,000,000, or so  
10 much thereof as may be necessary for fiscal year 2006-2007, to  
11 be used for the purposes of the hydrogen investment capital  
12 special fund, pursuant to section 211F-A, Hawaii Revised  
13 Statutes.

14 The sum appropriated shall be expended by the department of  
15 business, economic development, and tourism for the purposes of  
16 this part.

17 SECTION 40. There is appropriated out of the general  
18 revenues of the State of Hawaii the sum of \$ , or so much  
19 thereof as may be necessary for fiscal year 2006-2007, for the  
20 Hawaii natural energy institute to hire one full time hydrogen  
21 system program manager position.



1           The sum appropriated shall be expended by the University of  
2 Hawaii through a contract with the Hawaii natural energy  
3 institute for the purposes of this part.

4                   PART VIII.   SOLAR WATER HEATING PAY AS YOU SAVE

5           SECTION 41.   **Solar water heating pay as you save program;**  
6 **purpose; establishment; tariff filing.** (a) Solar water heating  
7 systems are a renewable energy technology that utilizes solar  
8 collectors placed on roofs to heat water. These systems  
9 decrease reliance on imported oil used to generate electricity  
10 to heat water because they use less energy than the electric hot  
11 water heating systems replaced.

12           The legislature finds that the upfront cost of installation  
13 is a barrier preventing many Hawaii residents from installing  
14 solar water heating systems. The legislature further finds that  
15 the renewable energy income tax credit and electric utility  
16 rebates have not been enough of an incentive to overcome these  
17 upfront costs, especially for rental housing and homes in need  
18 of retrofit for these important energy saving devices.

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



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

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

6           (A) With no upfront payments; and

7           (B) By paying the cost of the system over time on the  
8 customer's electricity bill;

9           provided that the estimated electricity savings from  
10 the solar water heating system exceeds the cost of the  
11 system;

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

14          (3) Provide for disconnection of utility service for non-  
15 payment of solar water heating system pay as you go  
16 payments; and

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

19          (c) The public utilities commission shall determine the  
20 time frame of the pilot program and shall gather and analyze  
21 information to evaluate the pilot program.





1 (d) No later than June 30, 2007, each electric utility  
2 shall implement by tariff a pay as you save model system program  
3 for residential consumers that is consistent with this section,  
4 or a similar program for residential customers that meets the  
5 objectives of this section. Each utility shall provide at least  
6 six months' prior notice of its proposed tariff to the public  
7 utilities commission as prescribed in section 269-12(b), Hawaii  
8 Revised Statutes. Within the prescribed notice period, the  
9 public utilities commission shall review the proposed tariff  
10 and, after a hearing, may require modifications to the proposed  
11 tariff as is necessary to comply with or effectuate the purposes  
12 of this section.

13 (e) The commission shall ensure that all reasonable costs  
14 incurred by electric utilities to start up and implement the pay  
15 as you save model system are recovered as part of the utility's  
16 revenue requirement, including but not limited to necessary  
17 billing system adjustments and any costs for pay as you save  
18 model system efficiency measures that are not recovered via  
19 participating residential consumers' pay as you save model  
20 system bill payments or otherwise.

21 PART IX. MISCELLANEOUS PROVISIONS



1 SECTION 42. This Act does not affect rights and duties  
2 that matured, penalties that were incurred, and proceedings that  
3 were begun, before its effective date.

4 SECTION 43. In codifying the new sections added by this  
5 Act, the revisor of statutes shall substitute appropriate  
6 section numbers for the letters used in designating the new  
7 sections in this Act.

8 SECTION 44. Statutory material to be repealed is bracketed  
9 and stricken. New statutory material is underscored.

10 SECTION 45. This Act shall take effect on July 1, 2006;  
11 provided that section 2 of this Act shall apply to taxable years  
12 beginning after December 31, 2005; and provided further that the  
13 increased tax credits established in section 2 of this Act shall  
14 be available only to eligible renewable energy technology  
15 systems installed after July 1, 2006.

