HOUSE OF REPRESENTATIVES
TWENTY-THIRD LEGISLATURE, 2006
STATE OF HAWAII

H.B. NO. 2175 H.D. 2 S.D. 1

A BILL FOR AN ACT

RELATING TO ENERGY.

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

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

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

Over the years, the legislature has worked steadily to encourage the deployment of renewable energy resources and energy efficiency initiatives. This includes but is not limited to:

(1) Establishing a net energy metering program, interconnection standards, and renewable energy tax credits;

(2) Establishing greenhouse gas and energy consumption reduction goals for state facilities and requiring the use of energy efficient products in state facilities; and

(3) Providing incentives for the deployment of solar energy devices.

The legislature also established an enforceable renewable energy portfolio standard, under which twenty per cent of Hawaii's electricity is to be generated from renewable resources by the end of 2020.

To shape Hawaii's energy future and achieve the goal of energy self-sufficiency for the State of Hawaii, our efforts must continue on all fronts, integrating new and evolving technologies and providing incentives and assistance to address barriers.

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

(1) Increasing the renewable energy technologies income tax credit for certain solar-thermal and photovoltaic

energy systems and removing the tax credits' 2008 sunset date;

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

(3) Authorizing the issuance of general obligation bonds to bring state facilities into compliance with the purposes of Act 77, Session Laws of Hawaii 2002, which, among other things, establishes greenhouse gas and energy consumption reduction goals for state facilities;

(4) Promoting the use of green building practices by requiring each county agency that issues building, construction, or development-related permits to establish a procedure for priority processing of permit applications for construction projects incorporating Leadership in Energy and Environmental Design building standards;

(5) Establishing the pay as you save pilot project to provide a financing mechanism to make purchases of

residential solar hot water heater systems more affordable; and

(6) Establishing a Hawaii renewable hydrogen program and hydrogen investment capital special fund and providing appropriate funding therefor.

PART I. RENEWABLE ENERGY TECHNOLOGIES INCOME TAX CREDIT

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

1. By amending subsection (a) to read:

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

(1) Solar thermal energy systems for:

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

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

(C) Commercial property: thirty-five per cent of the actual cost or [~~$250,000,~~] $500,000 whichever is less;

(2) Wind-powered energy systems for:

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

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

(C) Commercial property: twenty per cent of the actual cost or $250,000, whichever is less; and

(3) Photovoltaic energy systems for:

(A) Single-family residential property: thirty-five per cent of the actual cost or [~~$1,750,~~] $7,500, whichever is less;

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

(C) Commercial property: thirty-five per cent of the actual cost or [~~$250,000,~~] $500,000, whichever is less;

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

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

2. By amending subsection (c) to read:

"(c) [~~The~~] For taxable years beginning after December 31, 2005, the dollar amount of [~~any new federal energy tax credit similar to the credit provided in this section that is established after June 30, 2003, and~~] any utility rebate[~~,~~]

shall be deducted from the cost of the qualifying system and its installation before applying the state tax credit."

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

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

PART II. RENEWABLE ENERGY AND ENERGY EFFICIENCY IN HAWAII'S PUBLIC SCHOOLS

SECTION 4. The director of finance is authorized to issue general obligation bonds in the sum of $5,000,000, or so much thereof as may be necessary, and the same sum or so much thereof as may be necessary is appropriated for fiscal year 2006-2007 for the purpose of developing and implementing a photovoltaic, net energy metered pilot project in public schools. The department of education shall determine the project sites most suitable in meeting the pilot project's objectives. The project objectives shall:

(1) Have, at a minimum, a project site at one public school on each of the islands of Oahu, Hawaii, and Kauai, and one public school within the county of Maui;

(2) Allow installation of photovoltaic systems to be timed in conjunction with substantial roof repairs or roof replacement of the building to further reduce project costs;

(3) Use the application of net energy metering to offset costs of the system;

(4) Recapture system costs within three-quarters of the useful life of the photovoltaic system; and

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

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

The appropriation made for the capital improvement project authorized by this section shall not lapse at the end of the fiscal biennium for which the appropriation is made; provided that all moneys from the appropriation unencumbered as of June 30, 2008, shall lapse as of that date.

The department of education shall submit an interim report on the pilot project to the legislature no later than twenty days prior to the convening of the regular session of 2007 and a

final report to the legislature no later than twenty days prior to the convening of the regular session of 2008.

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

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

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

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

(1) For all design that is initiated on or after July 1, 2006, for construction or substantial renovation of a building, utilizing fifty per cent or more in state funds, use the Leadership in Energy and Environmental Design silver or Two Green Globes rating system or another comparable state-approved, nationally recognized, and consensus-based guideline, standard, or system except if the guideline, standard,

or system interferes or conflicts with the use of the building or facility as an emergency shelter;

(2) Incorporate energy efficiency measures to prevent heat gain in residential facilities of three stories and below to provide R-19 or equivalent on roofs, R-11 or equivalent in walls, and high-performance windows to minimize heat gain and, if air conditioned, minimize cool air loss. Where possible, buildings shall be oriented to maximize natural ventilation and day-lighting without heat gain and to optimize solar for water heating. This paragraph shall apply to new residential facilities built using any portion of state funds or located on state lands. For the purposes of this paragraph, "R-value" means the constant time rate resistance to heat flow through a unit area of a body induced by a unit temperature difference between the surfaces, and is a measure of the thermal resistance of building envelope components such as roof and walls. The higher the R-value, the greater the resistance to heat flow;

(3) Install solar water heating systems where it is cost-effective, based on a comparative analysis to

determine the cost-benefit of using a conventional water heating system or a solar water heating system. The analysis shall be based on the projected life cycle costs to purchase and operate the water heating system. If the life cycle analysis is positive, the facility shall incorporate solar water heating. If water heating entirely by solar is not cost-effective, the analysis shall evaluate the life cycle, cost-benefit of solar water heating for preheating water. If a multi-story building is centrally air conditioned, heat recovery shall be employed as the primary water heating system. Single-family residential clients of the department of Hawaiian home lands and any agency or program that can take advantage of utility rebates are exempted from this requirement so they may continue to qualify for utility rebates for solar water heating;

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

(5) Incorporate principles of waste minimization and pollution prevention, such as reducing, reusing, and recycling, as a standard operating practice in

programs, including programs for construction and demolition of waste management and office paper and packaging recycling programs;

(6) Use life cycle cost-benefit analysis to purchase energy efficient equipment such as ENERGY STAR products and use utility rebates where available to reduce purchase and installation costs; and

(7) Procure environmentally preferable products, including recycled and recycled-content, bio-based, and other resource-efficient products and materials.

(c) With regard to transportation fuel, each agency shall:

(1) Comply with Title 10, Code of Federal Regulations, Part 490, subpart C, "Mandatory State Fleet Program", if applicable;

(2) Comply with all applicable state laws regarding vehicle purchases;

(3) Once federal and state vehicle purchase mandates have been satisfied, purchase the most fuel-efficient vehicle to meet the needs of the program the vehicle is designated for; provided that life cycle cost-benefit analysis of a vehicle purchase shall include projected fuel costs;

(4) Purchase alternative fuels and ethanol blended gasoline when available;

(5) Evaluate a purchase preference for biodiesel blends, as applicable to agencies with diesel fuel purchases;

(6) Promote efficient operation of vehicles;

(7) Use the most appropriate minimum octane fuel; provided that vehicles shall use 87-octane fuel unless the owner's manual for the vehicle states otherwise or the engine experiences knocking or pinging;

(8) Beginning with fiscal year 2005-2006 as the baseline, collect and maintain, for the life of each vehicle acquired, the following data:

(A) Vehicle acquisition cost;

(B) United States Environmental Protection Agency rated fuel economy;

(C) Vehicle fuel configuration, such as gasoline, diesel, flex-fuel gasoline/E85, and dedicated propane;

(D) Actual in-use vehicle mileage;

(E) Actual in-use vehicle fuel consumption; and

(F) Actual in-use annual average vehicle fuel economy;

and

(9) Beginning with fiscal year 2005-2006 as the baseline with respect to each agency that operates a fleet of thirty or more vehicles, collect and maintain, in addition to the data in paragraph (8), the following:

(A) Information on the vehicles in the fleet, including vehicle year, make, model, gross vehicle weight rating, and vehicle fuel configuration;

(B) Fleet fuel usage, by fuel;

(C) Fleet mileage; and

(D) Overall annual average fleet fuel economy and average miles per gallon of gasoline and diesel."

SECTION 6. Section 36-41, Hawaii Revised Statutes, is amended to read as follows:

"**§36-41 Energy retrofit and [~~performance~~] energy-savings contracting for public facilities.** (a) All agencies shall evaluate and identify for implementation energy efficiency retrofitting through [~~performance~~] energy-savings contracting. Agencies that perform energy efficiency retrofitting may continue to receive budget appropriations for energy expenditures at an amount that shall not fall below the

pre-retrofitting energy budget but shall rise in proportion to any increase in the agency's overall budget for the duration of the [~~performance~~] energy-savings contract or project payment term.

(b) Any agency may enter into a multi-year [~~energy performance~~] energy-savings contract for the purpose of undertaking or implementing energy conservation or alternate energy measures in a facility or facilities. An [~~energy performance~~] energy-savings contract may include [~~but shall not be limited to~~] financing options such as leasing, lease-purchase, financing agreements, third-party joint ventures, guaranteed-savings plans, or energy service contracts, or any combination thereof; provided that in due course the agency may receive title to the energy system being financed. Except as otherwise provided by law, the agency that is responsible for a particular facility shall review and approve [~~energy performance~~] energy-savings contract arrangements for the facility.

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

(1) The agency shall issue a public request for proposals, advertised in the same manner as provided in chapter 103D, concerning the provision of energy efficiency services or the design, installation, operation, and maintenance of energy equipment or both. The request for proposals shall contain terms and conditions relating to submission of proposals, evaluation and selection of proposals, financial terms, legal responsibilities, and other matters as may be required by law and as the agency determines appropriate;

(2) Upon receiving responses to the request for proposals, the agency may select the most qualified proposal or proposals on the basis of the experience and qualifications of the proposers, the technical approach, the financial arrangements, the overall benefits to the agency, and other factors determined by the agency to be relevant and appropriate;

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

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

(5) Any contract entered into shall contain the following annual allocation dependency clause:

"The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the applicable funding authority. If that authority fails to appropriate sufficient funds to provide for the continuation of the contract, the contract shall terminate on the last day of the fiscal year for which allocations were made";

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

(7) Any [~~energy performance~~] energy-savings contract shall provide that total payments shall not exceed total savings; and

(8) For any guaranteed-savings plan:

(A) The payment obligation for each year of the contract, including the year of installation,

shall be guaranteed by the private sector person or company to be less than the annual energy cost savings attributable under the contract to the energy equipment and services. Such guarantee, at the option of the agency, shall be a bond or insurance policy, or some other guarantee determined sufficient by the agency to provide a level of assurance similar to the level provided by a bond or insurance policy; and

(B) In the event that the actual annual verified savings are less than the annual amount guaranteed by the energy service company, the energy service company, within thirty days of being invoiced, shall pay the agency, or cause the agency to be paid, the difference between the guaranteed amount and the actual verified amount.

(d) For purposes of this section:

"Agency" means any executive department, independent commission, board, bureau, office, or other establishment of the State or any county government, the judiciary, the University of Hawaii, or any quasi-public institution that is supported in whole or in part by state or county funds.

"[~~Energy performance~~] Energy-savings contract" means an agreement for the provision of energy services and equipment, including [~~but not limited to~~] building or facility energy conservation enhancing retrofits, water saving technology retrofits, and alternate energy technologies, in which a private sector person or company agrees to finance, design, construct, install, maintain, operate, or manage energy systems or equipment to improve the energy efficiency of, or produce energy in connection with, a facility in exchange for a portion of the cost savings, lease payments, or specified revenues, and the level of payments is made contingent upon the verified energy savings, energy production, avoided maintenance, avoided energy equipment replacement, or any combination of the foregoing bases. Energy conservation retrofits also include energy saved off-site by water or other utility conservation enhancing retrofits.

"Facility" means a building or buildings or similar structure, including the site owned or leased by, or otherwise under the jurisdiction of, the agency.

"Financing agreement" shall have the same meaning as in section 37D-2.

"Guaranteed-savings plan" means an agreement under which a private sector person or company undertakes to design, install, operate, and maintain improvements to an agency's facility or facilities and the agency agrees to pay a contractually specified amount of verified energy cost savings.

"Verified" means the technique used in the determination of baseline energy use, post-installation energy use, and energy and cost savings by the following measurement and verification techniques: engineering calculations, metering and monitoring, utility meter billing analysis, computer simulations, mathematical models, and agreed-upon stipulations by the customer and the energy service company."

SECTION 7. Section 196-1, Hawaii Revised Statutes, is amended to read as follows:

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

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

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

(2) There is a real need for <u>strategic</u> comprehensive planning in the effort towards achieving full utilization of Hawaii's energy resource programs and the most effective allocation of energy resources throughout the State. Planning is necessary and desirable in order that the State may recognize and declare the major problems and opportunities in the field of energy resources. Both short-range and long-range planning will permit the articulation of broad policies, goals, and objectives; criteria for

measuring and evaluating accomplishments of objectives; identification and implementation of programs [~~which~~] that will carry out such objectives; and a determination of requirements necessary for the optimum development of Hawaii's energy resources. Such planning efforts will identify present conditions and major problems relating to energy resources, their exploration, development, production, and distribution. It will show the projected nature of the situation and rate of change and present conditions for the foreseeable future based on a projection of current trends in the development of energy resources in Hawaii.

(3) There are many agencies of the federal, state, and county governments in Hawaii, as well as many private agencies, engaged in, or expressing an interest in, various aspects of the exploration, research, distribution, conservation, and production of all forms of energy resources in Hawaii. Some of these agencies include the University of Hawaii, the department of land and natural resources, the department of business, economic development, and

tourism, the consumer protection, the federal energy office, and various county agencies, as well as the oil companies, gas stations, and other private enterprises.

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

SECTION 8. Section 196-18, Hawaii Revised Statutes, is amended by amending subsections (a) and (b) to read as follows:

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

(1) State agencies[~~,~~], including the University of Hawaii;

[~~(2) County governments;~~

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

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

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

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

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

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

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

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

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

(3) Improve building design;

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

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

(6) Establish benchmarks and evaluate the State's progress in incorporating energy efficiency and conservation for state facilities, vehicles, and equipment;

(7) Make recommendations on how and when to conduct periodic energy audits; and

(8) Make recommendations to the legislature no later than twenty days prior to the convening of each regular session, starting with the 2008 regular session, for

policy or other statutory changes to carry out the purposes of this chapter."

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

1. By amending subsection (a) to read:

"(a) Agencies shall maximize their use of available alternative financing contracting mechanisms, including energy-savings [~~performance~~] contracts and utility energy-efficiency service contracts, when life-cycle cost-effective, to reduce energy use and cost in their facilities and operations. Energy-savings contracts shall include:

(1) Energy-savings performance contracts;

(2) Municipal lease/purchase financing; and

(3) Utility energy efficiency service contracts.

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

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

"(c) Notwithstanding any law to the contrary relating to the award of public contracts, any agency desiring to enter into

an [~~energy performance~~] energy-savings contract shall do so in accordance with the following provisions:

(1) The agency shall issue a public request for proposals, advertised in the same manner as provided in chapter 103D, concerning the provision of energy efficiency services or the design, installation, operation, and maintenance of energy equipment, or both. The request for proposals shall contain terms and conditions relating to submission of proposals, evaluation, and selection of proposals, financial terms, legal responsibilities, and other matters as may be required by law and as the agency determines appropriate;

(2) Upon receiving responses to the request for proposals, the agency may select the most qualified proposal or proposals on the basis of the experience and qualifications of the proposers, the technical approach, the financial arrangements, the overall benefits to the agency, and other factors determined by the agency to be relevant and appropriate;

(3) The agency thereafter may negotiate and enter into an [~~energy performance~~] energy-savings contract with the person or company whose proposal is selected as the

most qualified based on the criteria established by the agency;

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

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

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

SECTION 10. Section 196-22, Hawaii Revised Statutes, is amended to read as follows:

"**§196-22 State energy projects.** State energy projects may be implemented under this chapter with the approval of the comptroller and the director of finance. Notwithstanding section 36-41 or 196-21, the comptroller or the senior agency official of the department of accounting and general services, along with the director of finance, may exempt a state energy project from the advertising and competitive bidding requirements of section 36-41 or 196-21 and chapter 103, if the

comptroller deems exemption appropriate for energy projects with proprietary technology or necessary to meet the goals of the legislature. In addition, this section shall be construed to provide the greatest possible flexibility to agencies in structuring agreements entered into so that economic benefits and existing energy incentives may be used and maximized and financing and other costs to agencies may be minimized. The specific terms of [~~energy performance~~] energy-savings contracting under section 36-41 may be altered if deemed advantageous to the agency and approved by the director of finance and the senior agency official."

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

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

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

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

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

~~(c) The State shall employ sustainable design principles and agencies shall apply the principles to the siting, design,~~

~~and construction of new facilities. Agencies shall optimize life-cycle costs, pollution, and other environmental and energy costs associated with the construction, life-cycle operation, and decommissioning of the facility. Agencies shall consider using energy savings performance contracts or utility energy-efficiency service contracts to aid them in constructing sustainably designed buildings.~~

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

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

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

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

vehicles, and equipment under the control of the department of accounting and general services.

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

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

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

SECTION 14. The appropriations made for the capital improvement projects authorized by sections 12 and 13 of this Act shall not lapse at the end of the fiscal biennium for which the appropriation is made; provided that all moneys from the appropriation unencumbered as of June 30, 2008, shall lapse as of that date.

SECTION 15. There is appropriated out of the general revenues of the State of Hawaii the sum of $, or so

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

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

SECTION 16. Section 196-8, Hawaii Revised Statutes, is repealed.

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

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

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

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

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

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

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

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

~~(2) The solar, wind, and photovoltaic industries;~~

~~(3) The utilities industry;~~

~~(4) The building industry; and~~

~~(5) Any other professional or public sector group the energy resources coordinator deems appropriate.~~"]

SECTION 17. Section 196-12, Hawaii Revised Statutes, is repealed.

["~~[§196-12] Greenhouse gases reduction goal. Through life cycle cost-effective energy measures, each agency shall reduce its greenhouse gas emissions attributed to facility energy use by thirty per cent by January 1, 2012, compared to emission levels in calendar year 1990. In order to encourage optimal investment in energy improvements, agencies may count~~

~~greenhouse gas reductions from improvements in non-facility energy use toward this goal to the extent that these reductions are approved by the coordinator.~~"]

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

["~~**[§196-13] Energy efficiency improvement goals.** (a) Through life-cycle cost-effective measures, each agency shall reduce energy consumption per gross square foot of its facilities, excluding laboratory facilities, by twenty per cent by January 1, 2007, and thirty per cent by January 1, 2012, relative to calendar year 1990. No facility shall be exempt from these goals unless it meets criteria for exemptions established by the coordinator.~~

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

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

~~(d) Through life-cycle cost-effective measures, each agency shall reduce the use of petroleum-generated energy within its facilities. Agencies may accomplish this reduction by switching to less greenhouse gas-intensive or renewable energy sources, by eliminating unnecessary fuel use, or by other appropriate methods. Where alternative fuels are not practical or life-cycle cost-effective, agencies shall strive to improve the efficiency of their facilities.~~

~~(e) The State shall strive to reduce total energy use and associated greenhouse gas and other air emissions, as measured at the source. To that end, agencies shall undertake life-cycle cost-effective projects in which source energy decreases, even if site energy use increases. In those cases, agencies shall~~

~~receive credit toward energy reduction goals through guidelines established by the coordinator.~~

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

~~(g) Each agency's biennial budget submission shall include funding necessary to achieve the goals of this part. Budget submissions shall include the costs associated with encouraging the use of, administering, and fulfilling agency responsibilities under energy savings performance contracts, utility energy efficiency service contracts, and other contractual provisions for achieving conservation goals implementing life cycle cost effective measures, procuring life-cycle cost effective products, and constructing sustainably designed new buildings, among other energy costs.~~

~~The director of finance shall issue guidelines to assist agencies in developing appropriate requests that support sound investments in energy improvements and energy using products, and shall consider establishing a fund that agencies may draw on~~

~~to finance exemplary energy management activities and investments with higher initial costs but lower life cycle costs.~~

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

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

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

~~The report shall include:~~

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

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

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

SECTION 20. Section 196-15, Hawaii Revised Statutes, is repealed.

["~~**[§196-15] Senior agency official.** Each agency shall designate a senior official to be responsible for meeting the~~

~~goals and requirements of this part, including preparation of the annual report. Designated officials shall participate in the interagency energy policy committee established under section 196-17(c).~~"]

SECTION 21. Section 196-16, Hawaii Revised Statutes, is repealed.

["~~**[§196-16] Agency energy teams.** Each agency shall form a technical support team consisting of appropriate procurement, legal, budget, management, and technical representatives to expedite and encourage the agency's use of appropriations, energy savings performance contracts, and other alternative financing mechanisms necessary to meet the goals and requirements of this part. Agency energy team activities shall be undertaken in collaboration with each agency's representative to the interagency energy policy committee.~~"]

SECTION 22. Section 196-17, Hawaii Revised Statutes, is repealed.

["~~**[§196-17] Interagency coordination; policy committee.** (a) The coordinator shall be responsible for evaluating each agency's progress in improving energy management and for submitting agency energy scorecards to the governor and the legislature to report progress.~~

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

~~(1) The extent to which agencies are taking advantage of key tools to save energy and reduce greenhouse gas emissions, such as energy savings performance contracts, utility energy efficiency service contracts, ENERGY STAR and other energy efficient products, renewable energy technologies, electricity from renewable energy sources, and other strategies and requirement;~~

~~(2) Overall efficiency;~~

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

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

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

~~(b) The coordinator shall be responsible for working with agencies to ensure that they meet the goals of this part and report their progress. The coordinator shall develop and issue guidelines for agencies' preparation of their annual reports to the coordinator on energy management. The coordinator shall~~

~~also have primary responsibility for collecting and analyzing the data and shall ensure that agency reports are received in a timely manner.~~

~~(c) There is established within the department of business, economic development, and tourism, an interagency energy policy committee consisting of senior agency officials, to be chaired by the coordinator. The committee shall be responsible for encouraging implementation of energy efficiency policies and practices. The major energy consuming agencies, as designated by the coordinator, shall participate on the committee. The committee shall communicate its activities to all designated senior agency officials to promote coordination and achievement of the goals of this part.~~"]

SECTION 23. Section 196-20, Hawaii Revised Statutes, is repealed.

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

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

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

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

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

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

["~~[§196-26] Reduced greenhouse gas intensity of electric power.~~ ~~When selecting electricity providers, agencies shall purchase electricity from sources that use high efficiency electric generating technologies when life-cycle cost-effective. Agencies shall consider the greenhouse gas intensity of the~~

~~source of the electricity and strive to minimize the greenhouse gas intensity of purchased electricity.~~"]

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

["~~[§196-27] Purchasing electricity from renewable energy sources.~~ ~~Each agency shall evaluate its current use of electricity from renewable energy sources and report this level in its annual report to the coordinator. Based on this review, each agency shall adopt policies and pursue projects that increase the use of such electricity. Agencies shall include provisions for the purchase of electricity from renewable energy sources as a component of their requests for bids whenever procuring electricity. Agencies may use savings from energy efficiency projects to pay additional incremental costs of electricity from renewable energy sources.~~

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

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

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

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

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

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

~~(2) Performance evaluations of successful implementation of this part in areas such as energy savings performance contracts, sustainable design, energy efficient procurement, energy efficiency, water conservation, and renewable energy projects and performance evaluations of agency heads, members of the agency energy team, principal program managers,~~

~~heads of field offices, facility managers, energy managers, and other appropriate employees;~~

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

~~(4) Training and education shall be provided for all appropriate personnel relating to the energy management strategies contained in this part, including the incorporation into existing procurement courses information on energy management tools, energy savings performance contracts, utility energy efficiency service contracts, energy efficient products, and life cycle cost analysis; and~~

~~(5) Agencies shall designate showcase facilities to highlight energy or water efficiency and renewable energy improvements.~~"]

PART IV. COUNTY BUILDING PERMITS AND LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN PRIORITY PROCESSING

SECTION 30. Chapter 46, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"**§46- County building permits; incorporation of leadership in energy and environmental design building standards in project design; priority processing.** (a) Each county agency that issues building, construction, or development-related permits shall establish a procedure for the priority processing of a permit application submitted by a private entity for a construction project that incorporates leadership in energy and environmental design building standards into its project design. The permit processing procedure shall give priority to private sector permit applicants at no additional cost to the applicant. Any priority permit processing procedure established by a county pursuant to this section shall not imply or provide that any permit application filed under the priority processing procedure shall be automatically approved.

(b) For the purposes of this section:

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

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

PART V. SOLAR WATER HEATING PAY AS YOU SAVE

SECTION 31. **Solar water heating pay as you save program; purpose; establishment; tariff filing.** (a) Solar water heating systems are a renewable energy technology that uses solar collectors placed on roofs to heat water. These systems decrease reliance on imported oil used to generate electricity or gas to heat water because they use less energy than the electric or gas hot water heating systems replaced.

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

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

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

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

(A) With no upfront payments; and

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

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

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

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

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

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

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

(e) The commission shall ensure that all reasonable costs incurred by electric utilities to start up and implement the pay-as-you-save model system are recovered as part of the utility's revenue requirement, including but not limited to necessary billing system adjustments and any costs for pay-as-you-save model system efficiency measures that are not

recovered via participating residential consumers' pay-as-you-save model system bill payments or otherwise.

PART VI. HAWAII RENEWABLE HYDROGEN PROGRAM AND HYDROGEN INVESTMENT CAPITAL SPECIAL FUND

SECTION 32. Chapter 196A, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

"**§196A- Hawaii renewable hydrogen program.** (a) There is established, within the department of business, economic development, and tourism, a Hawaii renewable hydrogen program to coordinate the State's transition to a renewable hydrogen economy. The program shall plan, implement, and conduct activities, including:

(1) Strategic partnerships with the private sector, the federal government, national and international organizations, such as national laboratories and universities, other states, and Hawaii stakeholders for research, development, testing, and deployment of renewable hydrogen technologies;

(2) Engineering and economic studies to define Hawaii's potential for renewable hydrogen and evaluate

near-term project opportunities presented by the State's available renewable resources;

(3) Electric grid reliability and security projects that will enable integration of extensive renewable electricity on the island of Hawaii;

(4) Hydrogen demonstration projects, including infrastructure for the production, storage, and refueling of hydrogen vehicles;

(5) A statewide hydrogen economy public education and outreach plan, focusing on the island of Hawaii, to be developed in coordination with Hawaii's public education institutions;

(6) The promotion of Hawaii's renewable hydrogen assets and project opportunities to potential partners and investors;

(7) A plan, for implementation during 2007-2010, to more fully deploy hydrogen technologies and infrastructure capable of supporting the island of Hawaii's fuel needs, including:

(A) Expanded installation of hydrogen production facilities;

(B) Development of integrated energy systems including hydrogen vehicles;

(C) Construction of additional hydrogen refueling stations; and

(D) Encouragement of building design and construction that fully incorporates clean energy assets, including reliance on hydrogen-fueled distributed generation;

(8) A plan, for implementation during 2010-2020, to transition the island of Hawaii to a hydrogen-fueled economy by 2020, and to initiate that model throughout the State; and

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

SECTION 33. Chapter 211F, Hawaii Revised Statutes, is amended by adding a new section to be appropriately designated and to read as follows:

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

(1) Appropriations made by the legislature to the fund;

(2) All contributions from public or private partners;

(3) All interest earned on or accrued to moneys deposited in the special fund; and

(4) Any other moneys made available to the special fund from other sources.

(b) Moneys in the fund shall be used:

(1) To seed private sector and federal projects for research, development, testing, and deployment of renewable hydrogen systems in Hawaii;

(2) To pay reasonable expenses incurred by fund advisory board members in the execution of their relevant duties; and

(3) For any other purpose deemed necessary to carry out the purposes of this section."

SECTION 34. There is appropriated out of the general revenues of the State of Hawaii the sum of $, or so much thereof as maybe necessary for fiscal year 2006-2007, to be paid into the hydrogen investment capital special fund to carry out the purposes of section 32.

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

SECTION 35. There is appropriated out of the hydrogen investment capital special fund the sum of $, or so much thereof as may be necessary for fiscal year 2006-2007, to be used for the purposes of the hydrogen investment capital special fund.

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

SECTION 36. This Act does not affect rights and duties that matured, penalties that were incurred, and proceedings that were begun, before its effective date.

SECTION 37. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 38. This Act shall take effect on July 1, 2050.

HB2175, SD1

Report Title:
Energy Efficiency; Renewable Energy; Alternate Fuel

Description:
Provides a framework for energy self-sufficiency, focusing on energy efficiency and renewable energy resource employment 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. Establishes a renewable hydrogen program and hydrogen investment capital special fund. (SD1)