THE SENATE
TWENTY-FIFTH LEGISLATURE, 2009
STATE OF HAWAII

S.B. NO. 811

JAN 23 2009

A BILL FOR AN ACT

RELATING TO ENERGY RESOURCES

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

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

"[~~[~~]§196-9[~~]~~] **Energy efficiency and environmental standards for state facilities, motor vehicles, and transportation fuel.** (a) Each agency is directed to implement, to the extent possible, the following goals during planning and budget preparation and program implementation.

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

(1) Design and construct buildings meeting 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 when 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 up to three stories in height 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. R-value is the constant time rate resistance to heat flow through a unit area of a body induced by a unit temperature difference between the surfaces. R-values measure the thermal resistance of building envelope components such as roof and walls. The higher the R-value, the greater the resistance to heat flow. Where possible, buildings shall be oriented to maximize natural ventilation and day-lighting without heat gain and to optimize solar for water heating. This provision shall apply to new residential facilities built using any portion of state funds or located on state lands;

(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 shall be exempted from the requirements of this paragraph 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, revising, and recycling as a standard operating practice in programs, including programs for waste management in

construction and demolition projects 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 motor vehicles and 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 vehicles that meet the needs of their programs; provided that life cycle cost-benefit analysis of vehicle purchases 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.

(d) All new state buildings and facilities for which construction commences after January 1, 2010, shall be designed and constructed so that no less than ten per cent of their electricity requirements are supplied by renewable energy technology; provided that exempt facilities shall not be subject to this requirement.

As used in this subsection, "exempt facility" and "renewable energy technology" shall have the same meanings as in section 196-11."

SECTION 2. Statutory material to be repealed is bracketed and stricken. New statutory material is underscored.

SECTION 3. This Act shall take effect upon its approval.

INTRODUCED BY: Suzanne Chun Oakland

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Report Title:
Energy Resources; State Buildings

Description:
Requires all new state buildings and facilities for which construction commences after 1/1/10, to have no less than 10% of electricity usage supplied by renewable energy.