
A BILL FOR AN ACT

RELATING TO ENERGY RESOURCES.

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

1 SECTION 1. Section 196-9, Hawaii Revised Statutes, is
2 amended by amending subsections (b) and (c) to read as follows:

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

5 (1) Design and construct buildings meeting the Leadership
6 in Energy and Environmental Design silver or two green
7 globes rating system or another comparable
8 state-approved, nationally recognized, and
9 consensus-based guideline, standard, or system, except
10 when the guideline, standard, or system interferes or
11 conflicts with the use of the building or facility as
12 an emergency shelter;

13 (2) Incorporate energy-efficiency measures to prevent heat
14 gain in residential facilities up to three stories in
15 height to provide R-19 or equivalent on roofs, R-11 or
16 equivalent in walls, and high-performance windows to
17 minimize heat gain and, if air conditioned, minimize
18 cool air loss. R-value is the constant time rate



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

- 12 (3) Install solar water heating systems where it is cost-
13 effective, based on a comparative analysis to
14 determine the cost-benefit of using a conventional
15 water heating system or a solar water heating system.
16 The analysis shall be based on the projected life
17 cycle costs to purchase and operate the water heating
18 system. If the life cycle analysis is positive, the
19 facility shall incorporate solar water heating. If
20 water heating entirely by solar is not cost-effective,
21 the analysis shall evaluate the life cycle, cost-
22 benefit of solar water heating for preheating water.



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

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

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

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



1 (7) Install energy efficient lighting, such that no less
2 than twenty-five per cent of the agency's lighting
3 needs are met by energy efficient sources by 2020; and

4 [~~(7)~~] (8) Procure environmentally preferable products,
5 including recycled and recycled-content, bio-based,
6 and other resource-efficient products and materials.

7 (c) With regard to motor vehicles and transportation fuel,
8 each agency shall:

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

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

14 (3) Purchase vehicles powered by hybrid or fuel cell
15 technology such that no less than twenty-five per cent
16 of the vehicles in the agency's fleet are powered by
17 this technology by 2020;

18 [~~(3)~~] (4) Once federal and state vehicle purchase mandates
19 have been satisfied, purchase the most fuel-efficient
20 vehicles that meet the needs of their programs;
21 provided that life cycle cost-benefit analysis of
22 vehicle purchases shall include projected fuel costs;



- 1 [~~(4)~~] (5) Purchase alternative fuels and ethanol blended
2 gasoline when available;
- 3 [~~(5)~~] (6) Evaluate a purchase preference for biodiesel
4 blends, as applicable to agencies with diesel fuel
5 purchases;
- 6 [~~(6)~~] (7) Promote efficient operation of vehicles;
- 7 [~~(7)~~] (8) Use the most appropriate minimum octane fuel;
8 provided that vehicles shall use 87-octane fuel unless
9 the owner's manual for the vehicle states otherwise or
10 the engine experiences knocking or pinging;
- 11 [~~(8)~~] (9) Beginning with fiscal year 2005-2006 as the
12 baseline, collect and maintain, for the life of each
13 vehicle acquired, the following data:
- 14 (A) Vehicle acquisition cost;
- 15 (B) United States Environmental Protection Agency
16 rated fuel economy;
- 17 (C) Vehicle fuel configuration, such as gasoline,
18 diesel, flex-fuel gasoline/E85, and dedicated
19 propane;
- 20 (D) Actual in-use vehicle mileage;
- 21 (E) Actual in-use vehicle fuel consumption; and



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

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

18 SECTION 3. This Act shall take effect on July 1, 2008.

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INTRODUCED BY:

[Handwritten signatures: Ryan, B. Lee, and another signature]



Report Title:

Energy Resources; Efficiency

Description:

Requires lighting in state facilities to consist of 25% energy efficient sources by 2020. Requires state agency vehicle fleets to consist of 25% hybrid or fuel cell vehicles by 2020.

