

JAN 18 2008

A BILL FOR AN ACT

RELATING TO GREEN BUILDINGS.

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

1 SECTION 1. The United States Green Building Council has
2 found that buildings fundamentally impact people's lives and the
3 health of the planet. In the United States, buildings use one-
4 third of our total energy, two-thirds of our electricity, one-
5 eighth of our water, and transform land that provides valuable
6 ecological resources.

7 The Green Building Council first published the Leadership
8 in Energy and Environmental Design Green Building Rating System
9 for New Construction (LEED) in 1999 to help professionals
10 improve the quality of buildings and their impact on the
11 environment. The Green Building Council reports that LEED
12 certified buildings:

- 13 (1) Have lower operating costs and increased asset value;
14 (2) Reduce waste sent to landfills;
15 (3) Conserve energy and water;
16 (4) Are healthier and safer for occupants;
17 (5) Reduce harmful greenhouse gas emissions;



- 1 (6) Qualify for tax rebates, zoning allowances, and other
- 2 incentives in hundreds of cities; and
- 3 (7) Demonstrate an owner's commitment to environmental
- 4 stewardship and social responsibility.

5 Hawaii has historically recognized the importance of minimizing
 6 the impact of development to the environment. This is
 7 consistent with the goals of the LEED standards developed by the
 8 Green Building Council.

9 The purpose of this Act is to require that construction or
 10 major renovation projects to state buildings comply with the
 11 LEED standards necessary to achieve a gold rating.

12 SECTION 2. Chapter 103, Hawaii Revised Statutes, is
 13 amended by adding a new section to part II to be appropriately
 14 designated and to read as follows:

15 "§103- Construction of state buildings; sustainability.

16 (a) Every state building to which construction or major
 17 renovation is made on or after the effective date of this Act
 18 shall be designed, built, and operated in a manner so that the
 19 state building, or the portion renovated, would meet the
 20 requirements for receiving a gold rating or better under the
 21 United States Green Building Council's Leadership in Energy and
 22 Environmental Design (LEED) rating system. In determining



1 whether a state building meets the standard required by this
2 section, credit shall be provided to a project that uses
3 materials and resources that are given credit under the LEED
4 rating system.

5 (b) The energy resource coordinator, as identified in
6 chapter 196, shall administer the requirements of this section,
7 including establishing standards for determining whether the
8 project meets the LEED standard required by this section and
9 whether the project is entitled to receive credits for material
10 and resource selection.

11 (c) For purposes of this section:

12 "Major renovation" means any renovation project with a
13 contract price in excess of \$ _____.

14 "State building" means any building owned or leased by the
15 State, or any building the State occupies or intends to occupy."

16 SECTION 3. Chapter 196, Hawaii Revised Statutes, is
17 amended by adding a new section to be appropriately designated
18 and to read as follows:

19 "§196- Sustainability of state buildings. The
20 coordinator shall administer section 103- , including
21 establishing standards for applying the LEED rating system and



1 the credits to be afforded for material and resource
2 selections."

3 SECTION 4. Section 196-9, Hawaii Revised Statutes, is
4 amended by amending subsection (b) to read as follows:

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

- 7 (1) Design and construct buildings meeting the Leadership
8 in Energy and Environmental Design [~~silver or two~~
9 ~~green globes~~] gold rating system [~~or another~~
10 ~~comparable state approved, nationally recognized, and~~
11 ~~consensus based guideline, standard, or system~~],
12 except when the [~~guideline, standard, or~~] LEED gold
13 rating system interferes or conflicts with the use of
14 the building or facility as an emergency shelter;
- 15 (2) Incorporate energy-efficiency measures to prevent heat
16 gain in residential facilities up to three stories in
17 height to provide R-19 or equivalent on roofs, R-11 or
18 equivalent in walls, and high-performance windows to
19 minimize heat gain and, if air conditioned, minimize
20 cool air loss. R-value is the constant time rate
21 resistance to heat flow through a unit area of a body
22 induced by a unit temperature difference between the



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

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



1 primary water heating system. Single family
2 residential clients of the department of Hawaiian home
3 lands and any agency or program that can take
4 advantage of utility rebates shall be exempted from
5 the requirements of this paragraph so they may
6 continue to qualify for utility rebates for solar
7 water heating;

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

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

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

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



1 SECTION 5. Statutory material to be repealed is bracketed
2 and stricken. New statutory material is underscored.

3 SECTION 6. This Act shall take effect on July 1, 2008.

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INTRODUCED BY:

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Report Title:

State Buildings; Sustainable Building Standards

Description:

Requires that construction or major renovation of state buildings comply with the gold standard of the green building council's LEED rating system.

