

ACT 176

H.B. NO. 2569

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 the current governor has pledged to address the challenges facing Hawaii's classrooms, including soaring temperatures, outdated infrastructure, and costly electric bills throughout the State.

The legislature also finds that the University of Hawaii is progressing toward becoming energy net-zero by producing as much renewable energy as the system consumes by 2035. This progress will reduce the university's energy costs, contribute to Hawaii's clean energy goals, and make better use of limited resources. A similar opportunity to save on long-term energy costs and maximize limited resources exists in Hawaii's elementary, middle, and high schools. The department of education spends approximately \$48,000,000 annually for electricity. By implementing a program similar to the university program, the large sum of money used for utility services could be redirected broadly on projects that will improve the learning environment, such as cooling solutions, better

learning tools for students, enriching sports, arts, and extracurricular programs, and increasing pay to hire and retain better teachers.

Temperatures in Hawaii's kindergarten through grade twelve classrooms can reach over one hundred degrees Fahrenheit, far exceeding the ideal conditions in which children and teachers are effectively able to perform. Reducing temperatures in hot classrooms is critical to increasing student learning. A recent peer-reviewed study by the Harvard School of Public Health, "The Impact of Green Buildings on Cognitive Function," found that cognitive scores were over one hundred per cent higher in enhanced green building conditions with adequate ventilation that lowered carbon dioxide levels and provided a comfortable indoor environment. Other recent studies have shown increases in cognitive function and student performance in classrooms with daytime light emitting diode lighting over traditional fluorescent or incandescent lighting.

Installing more efficient lighting, natural ventilation, and integrating innovative renewable technologies such as solar panels and batteries can help power schools, reduce electricity costs, and improve student performance. Powering new classroom air conditioning units with solar panels and batteries without the need to connect to the electric grid can also reduce costs by eliminating the need for costly campus electrical upgrades, and will not add significant new costs to public school electric bills. Therefore, the legislature finds that it is in the public's interest to maximize the use of effective renewable technologies to reduce air conditioning installation and operating costs.

The purpose of this Act is to accelerate the goals of the department of education to cool Hawaii's schools, reduce energy costs, meet Hawaii's clean energy goals, and provide all students with better classrooms in which to learn.

SECTION 2. Chapter 302A, Hawaii Revised Statutes, is amended by adding a new section to part VI to be appropriately designated and to read as follows:

“§302A- Sustainable schools initiative. (a) The department shall establish a goal of becoming net-zero with respect to energy use, producing as much renewable energy as the department consumes across all public school facilities, by January 1, 2035.

(b) The department shall use the amount and value of energy consumed by the department across all public school facilities during the 2015-2016 fiscal year as the benchmark for measuring the department's progress toward the energy usage goal set forth in subsection (a).

(c) The department shall submit an annual report that shall include information on:

- (1) The overall progress toward the net-zero energy goal set forth in subsection (a);
- (2) Its plans and recommendations to advance the net-zero energy goal set forth in subsection (a); and
- (3) Any challenges or barriers encountered or anticipated by the department in meeting the net-zero energy goal set forth in subsection (a).

(d) The department shall expedite the cooling of all public school classrooms to a temperature acceptable for student learning. When implementing classroom cooling measures, the department, and any contractor hired to implement classroom cooling measures, shall maximize energy efficiency and installation and operating cost savings over the entire life of the project.

(e) Pursuant to this section, the department shall include in the report the status of the implementation of measures taken to cool public school

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classrooms as required by subsection (d). The report shall include the following information:

- (1) The number of completed classrooms in which cooling measures were implemented and the number of classrooms remaining that require cooling;
 - (2) The different types of cooling measures implemented;
 - (3) The approximate cost per classroom for planned cooling measures, including installation, upgrades, equipment, maintenance, and projected operating costs over the life of the installed cooling measures;
 - (4) The approximate cost per completed classroom for cooling measures implemented, including installation, upgrades, equipment, maintenance, and projected operating costs over the life of the installed cooling measures;
 - (5) The number of completed classrooms in which energy efficiency measures were installed or implemented and the number of classrooms remaining that require energy efficiency measures; and
 - (6) The different types of energy efficiency measures installed or implemented.
- (f) The department shall report its findings and recommendations, including any proposed legislation, to the legislature no later than twenty days prior to the convening of each regular session.”

SECTION 3. New statutory material is underscored.¹

SECTION 4. This Act shall take effect upon its approval.

(Approved June 30, 2016.)

Note

1. Edited pursuant to HRS §23G-16.5.