



STATE OF HAWAII  
DEPARTMENT OF EDUCATION  
P.O. BOX 2360  
HONOLULU, HAWAII 96804

**Date:** 03/22/2022

**Time:** 02:00 PM

**Location:** 309 Via Videoconference

**Committee:** House Education

**Department:** Education

**Person Testifying:** Keith T. Hayashi, Interim Superintendent of Education

**Title of Bill:** SB 2862, SD1 RELATING TO EDUCATION.

**Purpose of Bill:** Appropriates funds to the Department of Education to install air conditioning units for public school classrooms that have not received air conditioning units. Effective 7/1/2050. (SD1)

**Department's Position:**

The Hawaii State Department of Education (Department) supports SB 2862, SD1 to appropriate funds for the air conditioning installation in public school classrooms.

Schools Directed Air Conditioning (SDAC) is the Department's program for cooling classrooms.

Approximately 6,000 of 11,000 classrooms have window air conditioning. Of the 5,000 classrooms without air conditioning, approximately 60%, or 3,000 classrooms, have sufficient electrical capacity to install window units. The estimated cost for 3,000 classrooms is \$24 million in one-time costs and \$5.3 million in recurring annual electricity costs. The remaining 2,000 classrooms may require electrical upgrades using additional general or CIP funds. This will also incur approximately \$3.5 million in recurring annual electricity costs.

The SDAC initiative was started in August 2018 based upon the following process:

1. Reduce the electrical load at classrooms with the installation of 700,000 light emitting diode (LED) bulbs statewide. LEDs represent a 62.5% energy savings at the classrooms.
2. Determine the electrical capacity for window air conditioning by building. To date, 690 electrical assessments of buildings have been completed with 257 in process.

3. Install basic classroom window units by schools. To date, 3,342 air conditioning units have been installed with 778 in progress.
4. Update information at <https://www.hidoefacilities.org/portalsDAC.php>.

The Department appreciates this proposal and the inclusion of funding but asks that any additional funding does not affect the Department's top budget priorities to restore funds that were reduced as a result of the fiscal fallout from COVID-19 and the funding of existing budget shortfalls that were included in the Department's supplemental budget request. Without those funds, the Department will face severe constraints on its ability to continue to promote equity and access to needed resources and support for all schools.

Thank you for the opportunity to provide testimony in support of this measure.

DAVID Y. IGE  
GOVERNOR



CRAIG K. HIRAI  
DIRECTOR

GLORIA CHANG  
DEPUTY DIRECTOR

EMPLOYEES' RETIREMENT SYSTEM  
HAWAII EMPLOYER-UNION HEALTH BENEFITS TRUST FUND  
OFFICE OF THE PUBLIC DEFENDER

**STATE OF HAWAII**  
**DEPARTMENT OF BUDGET AND FINANCE**  
P.O. BOX 150  
HONOLULU, HAWAII 96810-0150

ADMINISTRATIVE AND RESEARCH OFFICE  
BUDGET, PROGRAM PLANNING AND  
MANAGEMENT DIVISION  
FINANCIAL ADMINISTRATION DIVISION  
OFFICE OF FEDERAL AWARDS MANAGEMENT (OFAM)

**WRITTEN ONLY**  
TESTIMONY BY CRAIG K. HIRAI  
DIRECTOR, DEPARTMENT OF BUDGET AND FINANCE  
TO THE HOUSE COMMITTEE ON EDUCATION  
ON  
SENATE BILL NO. 2862, S.D. 1

**March 22, 2022**  
**2:00 p.m.**  
**Room 309 and Videoconference**

RELATING TO EDUCATION

The Department of Budget and Finance (B&F) offers comments on this bill.

Senate Bill No. 2862, S.D. 1, appropriates an unspecified sum of general funds in FY 23 for the installation of air conditioning in those Hawai'i public school classrooms that have not received air conditioning units.

B&F notes that, with respect to the general fund appropriation in this bill, the federal Coronavirus Response and Relief Supplemental Appropriations Act requires that states receiving Elementary and Secondary School Emergency Relief (ESSER) II funds and Governor's Emergency Education Relief II funds must maintain state support for:

- Elementary and secondary education in FY 22 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

Further, the federal American Rescue Plan (ARP) Act requires that states receiving ARP ESSER funds must maintain state support for:

- Elementary and secondary education in FY 22 and FY 23 at least at the proportional level of the state's support for elementary and secondary education relative to the state's overall spending, averaged over FYs 17, 18 and 19; and
- Higher education in FY 22 and FY 23 at least at the proportional level of the state's support for higher education relative to the state's overall spending, averaged over FYs 17, 18 and 19.

The U.S. Department of Education has issued rules governing how these maintenance of effort (MOE) requirements are to be administered. B&F will be working with the money committees of the Legislature to ensure that the State of Hawai'i complies with these ESSER MOE requirements.

Thank you for your consideration of our comments.



Osa Tui, Jr.  
President  
Logan Okita.  
Vice President  
Lisa Morrison  
Secretary-Treasurer  
Wilbert Holck  
Executive Director

TESTIMONY BEFORE THE HOUSE COMMITTEE ON EDUCATION

RE: SB 2862, SD1 – RELATING TO EDUCATION

TUESDAY, MARCH 22, 2022

OSA TUI, JR., PRESIDENT  
HAWAII STATE TEACHERS ASSOCIATION

Chair Woodson, and Members of the Committee:

The Hawaii State Teachers Association **supports SB 2862, SD1**, relating to education. This bill appropriates funds to DOE to install air conditioning units for public school classrooms that have not received air conditioning units.

**HSTA supports any and all complexes to have funds appropriated to install air conditioning in their schools. As part of ensuring air quality for our students, air conditioning is a part of that goal. However, we ask that you also consider more air purification measures too, during these pandemic times.**

We thank you for your past support to cool our schools and ensure air quality, but more needs to be done to complete this task. It is not complete yet, and our students, teachers, and staff are still suffering. Some teachers in our schools continue to have seven fans in their classrooms and it is still like a convection oven, just blowing around hot air. It is not o.k. We need to protect our keiki and not allow them to suffer in their classrooms. They need to be comfortable so that they can focus on their learning, not their extreme discomfort. We also need to protect their health, thus the reason we are also asking for air filtration measures as well.

In a longitudinal analysis contained in “Effects of the Physical Environment on Student Learning,” moreover, Glen I. Earthman of Virginia Polytechnic Institute and State University found that students between 4th and 9th grade at demographically similar schools showed increased gains in reading vocabulary, total math, problem solving, math procedures, pre-writing, and editing at schools with air conditioning, as compared with peers from non-cooled schools. Earthman demonstrated that the longer and more consistently students are exposed to classroom cooling, the better and more stable their performance gains tend to be. Conversely, students exposed to thermal conditioning for only short or intermittent periods of time achieved less than their peers. These findings are supported by U.S. Department of Education sponsored research, which claims that proper cooling systems lead to better attitudes toward learning, fewer disciplinary problems, and sustained achievement.

School should be cool. To make our classrooms more suitable for student learning, the Hawaii State Teachers Association asks your committee to **support** this bill.



## SENATE BILL 2862, SD 1, RELATING TO EDUCATION

MARCH 22, 2022 · HOUSE EDUCATION COMMITTEE  
· CHAIR REP. JUSTIN H. WOODSON

**POSITION:** Support.

**RATIONALE:** The Democratic Party of Hawai'i Education Caucus **supports** SB 2862, SD 1, relating to education, which appropriates funds to DOE to install air conditioning units for public school classrooms that have not received air conditioning units.

If school is cool, then our classrooms should be, too. Yet, last year, classroom temperatures regularly exceeded 100 degrees and have reached as high as 108 degrees in one Kalaheo High School classroom in recent years. **Studies show that the achievement gap between cooled and non-cooled classroom environments can reach 17 percent on standardized tests.**

While local schools' outdated electrical infrastructure often cannot support traditional air conditioning technology, experiments in renewable energy cooling systems have lowered departmental projections for comprehensive cooling. We continue to believe that using available energy efficient technology—including on-grid, off-grid, microgrid, and photovoltaic technology—**should reduce the cost of air conditioning installation to approximately \$6,000 to \$8,000 per classroom or a total of \$40 million for the roughly 5,000 classrooms currently in need.**

During the 2016 legislative session, lawmakers appropriated \$100 million for heat abatement, heeding Gov. David Ige's call to cool 1,000 classrooms by the end of the 2016-2017 school year.

Available estimates of \$20,000 per classroom indicated that \$100 million would cover heat abatement for thousands of classrooms beyond the governor's call. Unfortunately, contractor bids were higher than expected. During the initial round of bidding, the "highest low bid," meaning the highest bid on a project that was also lower than all bids on the same project, was \$135,000. Other bids were even higher. Contech Engineering submitted a bid of \$360,770, for example, to install solar-powered air conditioning in one portable at Ewa Beach Elementary, a project for which the lowest initial bid was \$102,000. At the time, however, NextEra Energy Hawai'i donated 33 hybrid solar air-conditioning units to Kaunakakai Elementary and Kilohana Elementary schools on Moloka'i, Greenpath Technologies Inc., a Honolulu-based renewable energy company, installed the units at a cost of \$20,000 per classroom, verifying that classroom cooling could be accomplished sustainably and at significant cost savings. Since then, the cost of air conditioner installation and maintenance that employs renewable technology has declined even more.

Three years ago, HIDOE officials announced an ambitious plan to lower air conditioning installation costs even further. Under a new, streamlined process, HIDOE is now giving school leaders the power to request an electrical assessment from the department to determine if their classrooms have the electrical capacity for additional air conditioning units. If they do, then schools can budget for installation, partner with community groups for equipment donations and installation services, and install split AC and hybrid units that dramatically undercut previous heat abatement costs. Quite frankly, this is what HIDOE leaders should have been doing all along.

**Kris Coffield · Chairperson, DPH Education Caucus · (808) 679-7454 · [kriscoffield@gmail.com](mailto:kriscoffield@gmail.com)**

Committees on Education and Economic Development  
The Hawaii State House of Representatives  
415 S Beretania St.  
Honolulu, HI 96813

Re: SB2862 SD1 SUPPORT

January 27, 2022

Dear Chairs Woodson and Quinlan, Vice Chairs Kapela and Hold, and esteemed members of the Education and Economic Development Committees,

I am writing in SUPPORT of BILL SB2862 SD1 which seeks to provide air conditioning units for our public schools that lack them.

My name is Erika Molyneux, and I am a resident of Kaneohe, a former middle and high school teacher, and a community college instructor with a child in public elementary school and another about to start preschool. As a human being with my own first-hand understanding of conditions that promote productive teaching and learning, a teacher with training and experience that support these understandings, and a mother concerned with my child's educational experience, I urge you to consider that when teachers', staffs', and students' basic physical needs and comfort are neglected, academic instruction and achievement and the school experience as a whole suffer. I'm sure you can each agree that it is more difficult to concentrate on learning or working in sweltering heat or with mosquitos and other insect pests entering through open windows and doors and biting and distracting learners. Additionally, new air-conditioners that utilize HEPA filters to minimize the spread of infectious diseases.

Let us support our public school students, teachers, and staff to help ensure conditions that promote teaching and learning.

For all these reasons and more, I strongly support PASSING BILL SB2862 SD1. Mahalo nui!

Sincerely,

A handwritten signature in black ink, appearing to read 'Erika Molyneux', written in a cursive style.

Erika Molyneux