DAVID Y. IGE
GOVERNOR

DR. CHRISTINA M. KISHIMOTO
SUPERINTENDENT

STATE OF HAWAI`I
DEPARTMENT OF EDUCATION
P.O. BOX 2360
HONOLULU, HAWAI`I 96804

Date: 02/21/2020
Time: 11:00 AM
Location: 308
Committee: House Finance

Department: Education

Person Testifying: Dr. Christina M. Kishimoto, Superintendent of Education

Title of Bill: HB 2509, HD1 RELATING TO SCHOOLS.

Purpose of Bill: Appropriates funds for the Department of Education to install air conditioning in public schools that prioritize the project. Takes effect on 7/1/2050. (HD1)

Department's Position:
The Department of Education (Department) supports HB 2509, HD1, as a means to improve learning environments for our students.

The Department would like to note that many school facilities lack the electrical capacity to accommodate air conditioning units/systems and may require electrical upgrades. Should the legislature decide to provide resources for these upgrades, the Department would recommend a separate appropriation be made to complete the work in this measure.

Thank you for the opportunity to provide testimony on HB 2509 HD1.

The Hawai‘i State Department of Education is committed to delivering on our promises to students, providing an equitable, excellent, and innovative learning environment in every school to engage and elevate our communities. This is achieved through targeted work around three impact strategies: school design, student voice, and teacher collaboration. Detailed information is available at www.hawaiipublicschools.org.

HOUSE BILL 2509, HD1, RELATING TO SCHOOLS

FEBRUARY 21, 2020 · HOUSE FINANCE COMMITTEE · CHAIR REP. SYLVIA LUKE

POSITION: Support.

RATIONALE: The Democratic Party of Hawai'i Education Caucus supports HB 2509, HD1, relating to schools, which appropriates funds for the Department of Education to install air conditioning in public schools that prioritize the project.

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While local schools' outdated electrical infrastructure often cannot support traditional air conditioning technology, experiments in renewable energy cooling systems have lowered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 classroom cooling to approximately $6,000 per unit or a total of $28.8 million for the roughly 4,800 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.

Last year, 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.

LATE

HB-2509-HD-1
Submitted on: 2/20/2020 5:21:33 PM
Testimony for FIN on 2/21/2020 11:00:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Mr and Mrs John McComas	Individual	Support	No

Comments:

Dear Chairs, Vice-Chairs and respected Committee Members,

We stand in strong support of the funding that HB2509 will provide to the East Honolulu schools to allow them to install air-conditioning in all classrooms of the Kaiser Complex schools. The documented record high temperatures this past summer and fall, and the lack of suitable cooling available in our classrooms created a less than ideal learning environment for students, and less than ideal teaching environment for our teachers, and in the case of our child a dangerous and unsafe environment. Our 9 year old daughter is a registered student at one of the Kaiser Complex elementary schools and cannot attend school due to the lack of appropriate air-conditioning in our school. She is a medically complex child with a life-threatening genetic condition which includes a severe cardiac condition, and several MD directives that she is to be provided a temperature controlled environment at school, and due to the lack of appropriate and necessary electrical updates that our school needs to run air-conditioning, the classrooms pose a dangerous environment for our child. Our school has attempted to fund-raise to find the funding to update their electrical system and has not been successful in doing so. We humbly request that the legislators find in favor of passing this crucial funding so our schools can be safe for all children and teachers.

Sincerely,

Mr. and Mrs. John McComas

Honolulu, HI

HAWAII STATE TEACHERS ASSOCIATION
Teaching Today for Hawaii's Tomorrow

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LATE

TESTIMONY BEFORE THE HOUSE COMMITTEE ON
LOWER & HIGHER EDUCATION

RE: HB 2509 - RELATING TO SCHOOLS

TUESDAY, FEBRUARY 4, 2020

COREY ROSENLEE, PRESIDENT
HAWAII STATE TEACHERS ASSOCIATION

Chair Woodson and Members of the Committee:

The Hawaii State Teachers Association **strongly supports HB 2509** which appropriates funds for the Department of Education to install air conditioning in public schools that prioritize the project.

It's hot in Hawai'i. According to the National Weather Service, our state set over 50 high temperature records in the summer of 2015, with the heat and humidity lingering well into the start of fall. In our schools, children and teachers alike became ill from the blistering conditions. Kalaheo High School science teacher Micah Pregitzer recorded temperatures as high as 108 degrees inside his classroom in 2016, telling reporters, "You're dripping in sweat when you're just sitting there grading papers by yourself with no students in the room. You get the room packed with 36, 38, sometimes 40 students, and it just boosts that temperature up even higher."

A recent study conducted by University of California at Los Angeles researchers showed that the percentile gap between students learning in air conditioned and non-air-conditioned environments can reach as much as 17 percent on achievement tests, clearly evincing the impact of a comfortable classroom environment on student success. 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.

In 2017, thanks to Hawaii lawmakers, legislation was passed to cool 1,000 classrooms by appropriating $100 million for heat abatement. At the same time, other legislation required achieving netzero energy usage by 2035. Due to the replacement of fluorescent lights and the installation of much more energy efficient LED lights in our schools, plus other energy-saving measures, the electrical demand on our schools has diminished enough to now be able to install regular window A/C units, without having to rewire entire schools. This is great news and now installing A/C will cost a considerable amount less not only to install, but it will also not cause a higher energy usage that when we had fluorescent lights and other energy- draining appliances in our schools. HSTA is excited about this news and looks forward to cooling the remaining 7.000 classrooms that need cooled across our state.

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.