
Auditor's Summary

An Update on the Department of Education's Heat Abatement Efforts

Report No. 25-09



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NEARLY A DECADE AGO, in response to public outcry about sweltering conditions in some public-school classrooms, Hawai'i's political leaders responded by making air conditioning a top priority. In January 2016, Governor David Ige announced in his State of the State speech that he was working to cool 1,000 classrooms by the end of the year. "The classroom is a sacred learning space, but students will fail to learn the lessons of their teachers when temperatures soar to over 100 degrees," Governor Ige told lawmakers and top government officials who had gathered at the Hawai'i State Capitol for his speech.

That May, the Hawai'i Legislature approved \$100 million in general funds to cool 1,000 public school classrooms by the end of that calendar year. The Department of Education's (DOE) plan would later be referred to as the "Cool Classrooms Initiative."

Report No. 25-09, *An Update on the Department of Education's Heat Abatement Efforts*, is an extensive review and assessment of the legislative and funding history of this initiative to account for the \$100 million. We also reviewed DOE's subsequent heat abatement efforts. In doing so, we fully expected that DOE would be able to verify what was spent, where it was spent, and what it was spent on. The department was unable to do so with complete confidence or certainty because of poor record keeping, its transition to a new database for project documentation, and the departure of key employees. Because of this inconsistent, incomplete, and sometimes contradictory information,

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-Governor Ige in his
State of the State speech
in January 2016.

the total cost and the breakdown of the amounts expended under the Cool Classrooms Initiative that we report are estimates.

What we found

We found that rushed planning and poor decisions early on – as well as instructions not to add to the energy load – contributed to DOE moving forward with expensive and complex solar-powered air conditioning systems (solar AC systems) that ultimately didn't work very well, eliciting a new round of complaints from teachers. In the end, we were able to reasonably verify that the Cool Classrooms Initiative cooled 838 classrooms at a cost of about \$105 million.

We also found that the solar AC systems installed under the initiative are often in need of repair, some have been completely scrapped, and overall, they've cost millions to salvage, fix, and grid connect. Despite spending, on average, more than **\$120,000 per classroom**, some school principals report that the poorly performing air-conditioning systems have not done much to relieve the heat. Early on, teachers reported that the units didn't work or failed to cool their classrooms to a comfortable level and that the limited period of time – only five hours a day – in which the solar AC systems were intended to be operable often left classrooms sweltering during the rest of the school day. A decision by DOE to seal jalousie windows with plexiglass to create more airtight classrooms to maximize the efficiency of the systems exacerbated the heat problems during periods when the air conditioning was off, blocking trade winds that would normally cool classrooms.

We also reviewed DOE's subsequent approach to air conditioning classrooms, called the School Directed AC program, which the department announced in 2019. Unlike the initial heat abatement initiative, which was a one-time effort led by the department, the School Directed AC program gave schools the authority to air condition classrooms themselves, with minimal department involvement. A former DOE Administrator said the School Directed AC program grew out of parents "dropping off window AC units at the curb" out of concern for their children struggling to learn in warm classrooms. Under the School Directed AC program, at a school's request, DOE arranges and pays for schools' electrical assessments to help schools understand their capacity for added air conditioning units. In exchange, schools provide the department with an inventory of existing air conditioners. DOE noted in its press release that AC units could be paid for by the school, received as a donation from the community, or obtained through the department's legislative budget request.

We found that the department has provided minimal structure and oversight over the program; for instance, DOE intended that schools report their current inventory of air conditioning units before the assessment, but a department memo outlining the installation process does not list inventory reporting as a requirement. The memo does require that schools provide notice of installation and closeout to the department's project tracking website; however, the website does not include reporting on those requirements. Overall, we found DOE's

knowledge of and involvement in the School Directed AC program to be so incomplete and limited that we were unable to assess it. Finally, at the end of our audit, we were informed by the Procurement and Distribution Specialist II, who also serves as Acting Branch Administrator for the Office of Facilities and Operations, that the department had recently rescinded schools' authority to execute construction, which the DOE official said effectively ended the program. He would later provide us with the memo announcing the policy change but did not provide us with the official policy itself.¹

Why Did These Problems Occur?

Facing a tight timeline to cool 1,000 classrooms by year's end and under a mandate to be net-zero in energy usage by 2035 in its Cool Classrooms Initiative, DOE contracted for solar AC systems that appeared to be a possible solution to both. Instead of a thoughtful, well-planned approach, which may have included the passive (and much less costly) cooling strategies that DOE's consultant had recommended in the past, the department rushed to contract with multiple contractors, installing equipment from multiple manufacturers. As a result, the complex, unfamiliar, and costly solar AC systems were sometimes incorrectly installed, resulting in equipment failures and user misunderstandings at rollout. These systems are often in need of repair, some have been completely scrapped, and overall, they've cost millions to salvage, repair, and maintain.

In addition, DOE did not develop criteria to determine which classrooms were to be cooled in the initiative, and department officials and a senior principal could not explain how classrooms were chosen. Some classrooms chosen for air conditioning were inappropriate for solar AC systems, such as portable classrooms under the canopies of large trees.

Regarding the School Directed AC program, DOE's knowledge of and involvement in the program is limited. Employees directly involved in establishing the School Directed AC program no longer work at DOE or are in different positions that have no responsibility over the program. Some of the employees who currently have responsibility over the program, including the Interim Assistant Superintendent of the Office of Facilities and Operations, are relatively new to their positions. However, none of these current DOE officials could provide us with basic program information such as how many schools had participated in the School Directed AC program, which featured electrical assessments paid for by the department or the number of air conditioners that have been installed under the program.

¹ On July 30, 2025, more than six weeks after we had provided the draft report to the department for its review and comment, the department provided us with a memo dated January 20, 2025 to complex area superintendents and principals, which describes "procedural changes" for the School Directed AC program. Among other changes, schools are responsible for the cost of electrical assessments and the department's Office of Facilities and Operations is responsible for any design work and installation of the units. Schools are also required to "fully fund" the air conditioning upgrades, including the cost of the units as well as other associated installation costs.

DOE officials were even unclear on the few policies and procedures that guided the program, including whether schools are required to obtain an electrical assessment before installation of additional air conditioning.

Why Do These Problems Matter?

The objectives of this follow-up effort were seemingly straightforward: Report on how DOE expended \$100 million that was appropriated through Act 47, SLH 2016, for the Cool Classrooms Initiative; describe DOE's process to air condition classrooms under the School Directed AC program.

They were not, far from it.

For both follow-up efforts, we found that DOE could not provide straightforward answers to our seemingly straightforward questions. As previously mentioned, because the department provided us with inconsistent, incomplete, and sometimes contradictory information, the total cost and the breakdown of the amounts expended under the Cool Classrooms Initiative that we report are estimates, the best achievable accounting – by us, not DOE – of the amounts DOE spent. Paradoxically, the more information that we were able to gather from DOE and its contractors, the less clarity there was about how much was spent, where it was spent, and what it was spent on.

Similarly, at the start of our follow-up of the School Directed AC program, we made what we thought was a simple request: Please provide us with a list of schools that have participated in the School Directed AC program. DOE, however, was never able to provide us with such a list or other basic details about the program, such as its budget. We did learn that DOE had limited participation in and knowledge of the program.

At the end of our fieldwork, the present and the future of DOE's heat abatement efforts were unclear. Has the School Directed AC program been officially rescinded? If so, what policy replaces it? We don't know the answers to those questions, and at the time, it didn't appear DOE knew either.



Link to the complete
report

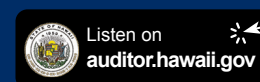
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Department of
Education's
Heat Abatement
Efforts**

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