



Shaping Tomorrow's Global Built Environment Today

M. Dennis Knight
2024-2025 ASHRAE President

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May 6, 2025

The Honorable Cottie Petrie-Norris
Chair
Committee on Utilities and Energy
California Assembly
1315 10th St.
Sacramento, CA 95814

Re: Assembly Bill 832, "School Energy Efficiency Stimulus Program"

Dear Chair Petrie-Norris:

ASHRAE, founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its more than 54,000 members, including over 3,100 members in California, focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability. Through research, standards writing, publishing, certification and continuing education, ASHRAE shapes tomorrow's built environment today.

I am writing regarding Assembly Bill 832. **ASHRAE supports the goal of AB 832 to extend the School Energy Efficiency Stimulus Program, also known as California Schools Healthy Air, Plumbing, and Efficiency Program (CalSHAPE.)** Since it was established in 2020, this program has begun the work of reducing energy use in schools and protecting the health and of California's school children, but upgrades to many school HVAC systems are still needed, which will also enhance academic performance.

The use of modern, energy efficient HVAC systems in schools will reduce energy use and save money for taxpayers. In addition to the financial savings, these HVAC upgrades would make students and educators healthier and more comfortable, reduce absenteeism, and improve learning outcomes. There are substantial academic and health benefits to be gained from updating school HVAC systems. Evidence suggests that student health and student learning outcomes are directly linked to indoor air quality, temperature, and humidity.¹

¹ <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0136165>

We also want you to be aware of the relevant ASHRAE standards that can help guide CalSHAPE's work. Using these standards would help ensure that HVAC system improvements are made according to the most up-to-date editions of these consensus-based standards. These are:

- ANSI/ASHRAE Standard 62.1-2022, *Ventilation and Acceptable Indoor Air Quality*, which specifies minimum ventilation rates and measures intended to provide indoor air quality that is acceptable to occupants and minimizes adverse health effects, such as breathing difficulties.
- ASHRAE Standard 241-2023, *Control of Infectious Aerosols*. This standard for buildings focuses on airborne infection risk mitigation. It establishes minimum requirements for building owners, operators and professionals to improve indoor air quality by reducing the risk of airborne disease transmission by infectious aerosols.
- ASHRAE Standard 180-2018, *Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems*, will help ensure that the improvements made by this program will continue to be well operated and maintained. Standard 180 gives details on how to implement inspection and maintenance practices, a list of the necessary tasks, and includes informative appendices with examples of situations in which a maintenance plan should be reviewed.
- ASHRAE Guideline 44-2024, *Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events*, includes tailored recommendations for spaces occupied by at-risk groups, including children; best practices for new buildings and retrofits; and guidance for the installation, commissioning, operation and maintenance of building envelopes, ventilation systems and air-cleaning technologies to mitigate smoke infiltration.

Thank you for your consideration of our comments. If you have any questions or need additional information, please do not hesitate to contact me or have your staff email GovAffairs@ashrae.org. Thank you for the work you are doing to protect the health and well-being of students, teachers, and other school staff.

Sincerely,

A handwritten signature in blue ink that reads "M. Dennis Knight". The signature is fluid and cursive, with the first name "M." and last name "Knight" clearly visible.

M. Dennis Knight
2024-2025 ASHRAE President