

CALSHAPE TOOLKIT

For Parent, Community Member, and Other Advocates
for Healthy and Efficient California Schools

What is CalSHAPE?

The **California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program** is a grant program created by AB 841, introduced by Assemblymember Phil Ting. It is administered by the California Energy Commission (CEC).

CalSHAPE Ventilation Program grants are an important source of funding for work to improve indoor air quality and energy efficiency in schools.

Unless the sunset date is extended by the Legislature, the current round of CalSHAPE Ventilation Program funding, Round 5, will be the last. **School districts should submit their grant applications by May 1, 2024, if possible, given the CEC's June 1, 2024 deadline for grant agreements to be executed. Awards are being made now on a rolling basis.**

For more info, visit the CalSHAPE Program website at <https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program> or contact CalSHAPE@energy.ca.gov.

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Please note: This toolkit is relevant to school districts/school sites that have not previously applied for CalSHAPE Ventilation Program funds, so would be applying for a Phase 1: Assessment and Maintenance (A&M) grant.

California Alliance for
CLEAN AIR
in Schools

www.cleanairallies.org/caalliance
cleanairalliesorg@gmail.com

*Prepared for outreach purposes by the
[California Alliance for Clean Air in Schools](#).*

(1) What is the CalSHAPE Ventilation Program?

The California Schools Healthy Air, Plumbing, and Efficiency ([CalSHAPE](#)) Ventilation Program is a grant program created by [AB 841](#), introduced by Assemblymember Phil Ting. It is administered by the California Energy Commission (CEC). CalSHAPE Ventilation Program grants fund work to improve indoor air quality and energy efficiency in schools. They [can pay](#) for qualified workers to:

- Install CO₂ monitors;
- Install MERV 13 or better filters where feasible;
- Verify ventilation rates;
- Assess HVAC systems and needs; and
- Make HVAC repairs, replacements, and upgrades to increase function and energy efficiency.

(2) When are applications for CalSHAPE Ventilation Program grants due?

By May 31, 2024, but to meet the CEC's June 1, 2024 deadline for grant agreements to be executed, school districts should apply by May 1, 2024, if possible. Awards are being made now on a rolling basis.

(3) Can my school district apply for a CalSHAPE Ventilation Program grant for school sites that aren't in underserved communities?

Yes. While some prior funding rounds were limited to high-priority school sites, school districts are now able to apply for a CalSHAPE

Ventilation Program grant for **all [school sites](#)** that fall within the service territory of a funding utility: Pacific Gas and Electric Co. (PG&E), Southern California Edison Co. (SCE), San Diego Gas & Electric Co. (SDG&E), or Southern California Gas Co. (SCG).

(4) Do CalSHAPE Ventilation Program grants require any match funds?

No.

(5) Can school sites without HVAC systems still benefit from a CalSHAPE Ventilation Program grant?

Yes. Under the CalSHAPE Ventilation Program, there are three "[pathways](#)":

- the **HVAC Assessment and Maintenance Pathway** for school sites with at least one HVAC system not scheduled for replacement within 2 years (including decentralized or unit HVAC systems as well as central HVAC systems);
- the **Scheduled for Replacement Pathway** for school sites where all HVAC systems are scheduled for replacement within 2 years; and
- the **Limited or No Mechanical Ventilation Pathway** for school sites that do not have an HVAC system.

CalSHAPE can pay for school sites without HVAC systems to receive CO₂ monitors and HVAC needs assessment. Even in places where HVAC systems have not been used in the past, such assessment is important because increasing [extreme heat events](#) and [ambient air pollution](#) will more broadly necessitate mechanical ventilation and filtration.

(6) If school sites have newer HVAC systems (e.g., funded through Prop 39, ESSER, or local bond measures), can they still benefit from a CalSHAPE Ventilation Program grant?

Yes. A 2017 [study](#) found that only 22% of classrooms in 37 recently constructed or renovated U.S. schools with HVAC met recommended minimum ventilation rates. In 2020, researchers from UC Davis and the Lawrence Berkeley National Lab published a study finding that [recent school HVAC retrofits were not delivering the ventilation rates required by California law](#). Using CO₂ level measurements, these researchers discovered that 85% of the 94 classrooms sampled lacked adequate ventilation. They recommended periodic HVAC systems testing and CO₂ monitoring to help detect and correct ventilation problems. Even if HVAC systems at a school site were recently installed, the HVAC assessments, adjustments, maintenance, repairs, replacements, and upgrades, as well as CO₂ monitors, funded by CalSHAPE can help to ensure that all systems are properly functioning.

(7) Will my school district be in stiff competition against other school districts for a CalSHAPE Ventilation Program grant?

No. Unlike some other grants, applying for a CalSHAPE Ventilation Program grant [does not](#) require an elaborate supporting narrative. Instead the [key inputs](#) involve site information, proof of ownership/lease, proposed work, and a contractor's estimate for that work.

If a grant application for eligible work is properly completed, a school district can expect to receive a notice of proposed award (NOPA). Post-NOPA, an award should be issued as long as the school district executes the [necessary paperwork](#) and funds are available in school sites' enrollment-based tier and funding utility service territory.

(8) I'm not sure how to find a contractor who can provide an estimate. Are there any resources available?

Yes. The California Association of Sheet Metal and Air Conditioning Contractors, National Association (CAL SMACNA), a non-profit trade association, worked with the CEC's CalSHAPE Program team to develop training for contractors. A list of contractors who completed the training can be found [here](#). Other reputable, licensed contractors can also provide an estimate and complete CalSHAPE-funded work as long as they use a [qualified workforce](#) as required by state law and comply with [program guidelines](#). Using skilled, trained workers helps ensure work is done to a high standard.

(9) If my school district misses the deadlines to apply and execute a grant agreement for this round of CalSHAPE Ventilation Program funding, can it apply during a later round?

No, likely not, unless the CalSHAPE Program is extended by the Legislature in the future. The CalSHAPE Program is scheduled to [sunset on January 1, 2027](#). If the sunset date remains unchanged, due to project lead times the current round of funding is anticipated to be the last.

(10) Can I get more general information or answers to specific questions about the CalSHAPE Ventilation Program?

Yes. You can visit the [CalSHAPE Program website](#) for more general information or contact the CEC's CalSHAPE Program team with specific questions at CalSHAPE@energy.ca.gov. Some notable CalSHAPE Ventilation Program resources available on the website include:

- [Round 5 Notice of Funding Availability](#)
- [Program Guidelines](#)
- [Application Instructions](#) and [Checklist](#)
- [Application Portal](#)

Tips:

- Consider addressing an informational letter about the CalSHAPE Ventilation Program to (1) the school district superintendent; (2) the school district administrator(s) responsible for facilities, maintenance, and operations; and (3) the school district administrator(s) responsible for bonds, business, and capital projects. Other possible addressees include (4) the school district administrator(s) responsible for student services and wellness; and (5) school board members/trustees. Exact titles can vary by school district, but most school districts have an organizational chart or list of departments on their website that can be used to identify relevant administrators.
- The California Energy Commission's CalSHAPE Program team regularly updates a [spreadsheet](#) of schools that have received a CalSHAPE Notice of Proposed Award (NOPA). If your school district (or school site) doesn't appear on the spreadsheet, it likely has not applied for a CalSHAPE Ventilation Program grant, but you can confirm this by emailing CalSHAPE@energy.ca.gov. If it is on the spreadsheet, consider making sure that the grant is actually being implemented in your school district.
- Be polite but don't be afraid to follow up if you don't receive a response or are not satisfied with a response.

Sample Letter Text:

Dear [title(s) and last name(s) of school district leader(s)],

I am a [parent/community member/teacher/student/other] interested in indoor air quality (IAQ) in the schools in our district.

I write to let you know about a State grant program to help school districts achieve better IAQ: the California Schools Healthy Air, Plumbing, and Efficiency ([CalSHAPE](#)) Ventilation Program.

Improving school IAQ benefits the health, attendance, and performance of all students, teachers, and staff, and is especially important for the most [vulnerable](#), including students with Section 504 Plans. Fresher, cleaner indoor air has been linked to:

- [Decreased absenteeism](#);
- Decreased [viral](#), [bacterial](#), and [fungal](#) pathogens that cause illness;
- Decreased [asthma and allergy](#) burden;
- Decreased levels of harmful pollutants like [PM2.5](#) that cause acute and chronic disease; and
- Increased [learning](#), [performance](#), and [test scores](#).

Well-functioning ventilation and filtration can also enhance [energy efficiency](#) and increase schools' resilience to [heat](#) and [wildfire smoke](#).

My understanding is that our school district hasn't yet applied for a CalSHAPE Ventilation Program grant.

CalSHAPE Ventilation Program grants [can pay](#) for skilled, trained workers to:

- Install CO2 monitors;
- Install MERV 13 or better filters where feasible;
- Verify ventilation rates;
- Assess HVAC systems and HVAC needs; and
- Make HVAC repairs, replacements, and upgrades to increase function and energy efficiency.

The attached [one-pager](#) provides links to literature relevant to these interventions.

The California Energy Commission (CEC) is making grant awards under the current round of CalSHAPE Ventilation Program [funding](#) now, on a rolling basis. A grant application should be submitted by May 1, 2024, if possible, given the CEC's June 1, 2024 deadline for grant agreements to be executed. Unless the program's sunset date is extended by the Legislature, this round of funding is expected to be the last.

Attached to this email is a list of Frequently Asked Questions ([FAQ](#)) about the CalSHAPE Ventilation Program prepared by the California Alliance for Clean Air in Schools. The online application [process](#) is quite straightforward. No elaborate narrative is required. Instead the key [inputs](#) involve site information, proof of ownership/lease, proposed work, and a contractor's estimate for that work. If a grant application for eligible work is properly completed, a notice of proposed award (NOPA) can be expected.

Questions about the CalSHAPE Ventilation Program and grant application process can be directed to the CEC's CalSHAPE Program team at CalSHAPE@energy.ca.gov. General information and the online application [portal](#) are also available on the program [website](#).

I hope that you will consider this grant program as a tool to improve school IAQ in our district.

Thank you,

[Name]

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WHY CALSHAPE?

WHAT CALSHAPE'S VENTILATION PROGRAM PAYS FOR QUALIFIED WORKERS TO DO:



WHY IT'S IMPORTANT:

Install Carbon Dioxide (CO₂) Monitors in All Classrooms

- CO₂ monitors allow for continuous, real-time monitoring of indoor air quality ([LBNL, 2020](#))
- Research ties high CO₂ levels to diminished performance and discomfort ([CEC, 2020](#); [ASHRAE, 2022](#))
- CALGreen requires CO₂ monitors in new, retrofitted, and renovated classrooms (§ 5.506.3); CalSHAPE helps to ensure equitable access in all classrooms

Verify Ventilation Rates in Occupied Areas (HVAC Assessment & Maintenance Pathway)

- Research links inadequate ventilation to increased absenteeism and decreased student performance ([CEC, 2020](#); [LBNL, 2020](#))
- Studies have raised concerns that ventilation rates in schools often fall below minimum let alone recommended levels ([CEC, 2020](#); [LBNL, 2020](#); [CDC, 2023](#))

Install MERV 13 or Better Filters Where Feasible

- MERV 13 or better filters are needed to remove particulate matter (PM) from wildfire events ([ASHRAE, 2021](#); [CARB, 2019](#); [CalEPA, 2019](#))
- MERV 13 or better filters help to prevent transmission of infectious diseases ([CDC, 2023](#); [CDPH, 2023](#))
- State law requires MERV 13 or better filters where feasible ([Cal. Ed. Code § 17661](#))

Assess HVAC Systems; Identify HVAC Needs/Problems; Make Certain Repairs, Replacements, and Upgrades; Document Their Work

- Without testing and maintenance, even relatively new HVAC systems may not function properly, compromising comfort, health, efficiency, and climate resiliency ([LBNL, 2020](#); [CEC, 2020](#))
- CalSHAPE data can help school districts to set priorities and make the case for local, state, and federal funding

FOR MORE INFO ON HOW YOUR SCHOOL DISTRICT CAN APPLY:

Visit the CalSHAPE Program website at <https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program> or contact CalSHAPE@energy.ca.gov

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