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CALIFORNIA ENERGY COMMISSION

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**DRAFT COMMISSION GUIDELINES**

# California Schools Healthy Air, Plumbing, and Efficiency Ventilation Program Guidelines

**Fourth Edition**

**Gavin Newsom, Governor**

**October 2023 | CEC-300-2023-008-D**

# California Energy Commission

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# ABSTRACT

The School Reopening Ventilation and Energy Efficiency Verification and Repair Program is one of the two grant programs under the School Energy Efficiency Stimulus Program, established by Assembly Bill 841 (Ting, Chapter 372, Statutes of 2020). The program authorizes funding to local educational agencies for assessing, maintaining, and repairing or upgrading school ventilation systems to ensure that systems meet certain classroom ventilation requirements. These guidelines provide requirements for program participation, including eligible applicants and projects, the application process, funding awards and distribution, as well as project documentation and reporting requirements. For administering the program, the program is referred to as the California Schools Healthy Air, Plumbing, and Efficiency Program. The program was allocated $20 million from the Greenhouse Gas Reduction Fund and is therefore a part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities. The fourth edition of these guidelines updates the timing of payment for the initial phase of program awards and removes the limit on the number of applications that can be submitted in each funding round for both phases of program awards.


**Keywords**: CalSHAPE, School Energy Efficiency Stimulus, SEES, School Reopening Ventilation and Energy Efficiency Verification and Repair Program, grant, energy efficiency, school, local educational agency, underserved community, HVAC, ventilation, assessment

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# Program Overview

## A. Introduction

The School Energy Efficiency Stimulus (SEES) Program, established by Assembly Bill (AB) 841 (Ting, Chapter 372, Statutes of 2020), provides grants to local educational agencies (LEAs) as defined in the glossary, to, among other things, assess, maintain, adjust, repair, or upgrade heating, ventilation, and air-conditioning (HVAC) systems in schools. The SEES Program also provides grants to LEAs and California state agencies to replace noncompliant plumbing fixtures and appliances. AB 841 requires the California Energy Commission (CEC), as the program administrator, to design, administer, and implement the program in collaboration with the utilities funding the program. The SEES Program is composed of the School Reopening Ventilation and Energy Efficiency Verification and Repair (SRVEVR) Program and the School Noncompliant Plumbing Fixture and Appliance (SNPFA) Program. For administering these programs, the SRVEVR Program is referred to as the California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Ventilation Program. The SNPFA Program is referred to as the CalSHAPE Plumbing Program.

These guidelines describe the program design, application process, and reporting requirements for the CalSHAPE Ventilation Program. The requirements of the CalSHAPE Plumbing Program are provided in separate guidelines.

These program guidelines provide potential applicants with information on program structure, funding eligibility, and program requirements. All grant applicants and recipients are required to follow all program requirements, including those outlined in Public Utilities Code (PUC) Division 1, Part 1, Chapter 8.7, and as further outlined in these guidelines.

The CalSHAPE Program is established as part of each of the utilities' energy efficiency portfolios as a joint program among all the participating utilities and shall be consistent across the utility territories. The CalSHAPE Ventilation and Plumbing Programs are separate programs, and grant awards will be made specific to each program.

The CEC prioritized schools in underserved communities, as defined in the glossary, in the first two funding rounds of the CalSHAPE Ventilation Program. The second edition of the guidelines expanded the eligibility for the initial phase of program awards to all schools located in the service territory of one of the four utilities, as defined in the glossary, that fund the CalSHAPE Program. The third edition addressed both Assessment and Maintenance (A&M) Grants and Upgrade and Repair (U&R) Grants:

> The A&M Grants provide funding for LEAs to perform assessments, assessment reports, general maintenance, adjustments of ventilation rates, filter replacements, and carbon dioxide monitor installation in schools. An additional 20 percent of the requested

amount is provided for repairs, upgrades, or replacements necessary to make the HVAC systems functional or more energy efficient.

The U&R Grants are offered to sites that complete an A&M Grant project in the HVAC Assessment and Maintenance Pathway or Limited or No Mechanical Ventilation Pathway and provide funding for repairs, upgrades, and replacements in excess of the additional 20 percent awarded.

This fourth edition of these guidelines changes the timing of A&M Grant payments with the addition of a payment of 25 percent of the grant award upon submittal of the HVAC Assessment Report. This edition of the guidelines also removes the limit on the number of applications that can be submitted in each funding round for both A&M and U&R Grants.

A list of versions of the CalSHAPE Ventilation Program Guidelines and a summary of the substantive changes made in each version are provided in Table 1. The CEC will continually evaluate the effectiveness of the program guidelines in achieving the purposes of AB 841 and may publish new editions to update eligibility and prioritization as needed.

**Table 1: CalSHAPE Ventilation Program Guidelines Version History**

| Guidelines Version | Date Adopted | Summary of Substantive Changes |
|---|---|---|
| CalSHAPE Ventilation Program Commission Guidelines | June 25, 2021 | N/A |
| CalSHAPE Ventilation Program Revised Commission Guidelines | August 11, 2021 | • Added regional occupational centers as eligible applicants. |
| CalSHAPE Ventilation Program Commission Guidelines, Second Edition | June 8, 2022 | • Expanded eligibility of program awards to all schools located in the service territory of one of the four utilities.<br>• Clarified the documents that are acceptable for proof of ownership or complying lease.<br>• Changed the application correction period from 10 calendar days to 15 business days.<br>• Provided additional detail on the requirements for final reporting. |
| CalSHAPE Ventilation Program Commission Guidelines, Third Edition | May 31, 2023 | • Added requirements for U&R Grants.<br>• Clarified the notice of funding availability process. |
| CalSHAPE Ventilation Program Commission Guidelines, Fourth Edition | TBD | • Changed the timing of A&M Grant payments.<br>• Removed the limit on the number of applications that can be submitted in a funding round for A&M and U&R Grants. |

Source: California Energy Commission

## B. Budget

Funding for the CalSHAPE Program comes from the energy efficiency budgets of California's large electric and gas investor-owned utilities and the Greenhouse Gas Reduction Fund (GGRF). CalSHAPE Program funding from California's large electric and gas investor-owned utilities (utility funding) is sourced from electrical corporations with 250,000 or more customer accounts within the state and gas corporations with 400,000 or more customer accounts within the state as determined by the California Public Utilities Commission (CPUC). These utilities are Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SCG).

The program will accrue utility funding in 2021, 2022, and 2023. The annual utility funding is derived from a combination of current year available funds and prior year unspent and uncommitted energy efficiency funds as described in PUC Section 1615(a). Each year, from 2021 through 2023, it is expected that the utilities will be required to prepare a joint advice letter detailing that year's budget for CPUC approval. PUC Section 1615(c) notes that CEC shall ensure that funds from each utility are used for projects located in the utility service territory from which the funds are received. PG&E has both electric and gas service territories, and the available funding attributed to each service territory will be in accordance with the energy efficiency portfolio budget recovery electric and gas funding percentages provided by PG&E in the utilities' joint advice letter to the CPUC.

### 1. Utility Service Territories Funding Categories

As described above, funding awards must be used for projects located in the service territory of the utility that contributed the funds; for example, the funds collected from PG&E will be distributed in PG&E territory. The CEC will allocate the available funding contributed by each utility using five funding categories. The funding category available to each eligible school site is determined based on the utility service territory in which the site is located. Table 2 identifies the funding categories and the associated utility service territories from which an award will be made. All projects funded by a program grant must meet the same requirements, as described by these guidelines, regardless of funding category.

The CEC will provide notices of annual budget accrual, total program funding, and available funds for each funding category at least once per year. Funds are allocated to the two grant programs per PUC Section 1616, with 75 percent to CalSHAPE Ventilation and 25 percent to CalSHAPE Plumbing. In accordance with PUC Section 1615(f), the CEC shall return all unused funds to each utility by December 1, 2026. To accomplish this, all projects, reporting, and reconciliation must be completed, and any unused funds returned to the CEC as described in Chapters 4 and 6. LEAs will be provided instructions for returning any unused funds to the CEC.

**Table 2: Utility Service Territory Funding Categories**

| Funding Category | Utility Service Territories |
|---|---|
| **PG&E Electric** | PG&E electric/PG&E gas<br>PG&E electric/Nonparticipating utility gas<br>PG&E electric/SCG gas |
| **PG&E Gas** | Nonparticipating utility electric/PG&E gas |
| **SCE** | SCE electric/Nonparticipating utility gas<br>SCE electric/SCG gas |
| **SCG** | Nonparticipating utility electric/SCG gas |
| **SDG&E** | SDG&E electric/SDG&E gas<br>SDG&E electric/Nonparticipating utility gas<br>SDG&E electric/SCG gas |

Source: California Energy Commission

## 2. Utility Service Territories and Application Tiers

To implement the program, the CEC established an approach based on the method employed for the CEC's Energy Conservation Assistance Act — Education Subaccount (ECAA-Ed) Competitive Loan Program to ensure that program funds are available to a range of LEAs within each utility service territory. LEAs in each utility service territory funding category are divided into three tiers based on LEA student enrollment. LEA tiers are detailed in Table 3.

**Table 3: LEA Tier by Enrollment Numbers**

| Tier | Number of Students |
|---|---|
| **1** | Fewer than 1,000 |
| **2** | Between 1,000 and 5,000 |
| **3** | More than 5,000 |

Source: California Energy Commission

LEAs are included in one or more of the application tiers as detailed in Table 4 corresponding to a utility service territory funding category and the size of the LEA.

**Table 4: LEA Application Tiers**

| Tier | PG&E Electric | PG&E Gas | SCE | SDG&E | SCG |
|---|---|---|---|---|---|
| **1** | PG&E-E1 | PG&E-G1 | SCE1 | SDG&E1 | SCG1 |
| **2** | PG&E-E2 | PG&E-G2 | SCE2 | SDG&E2 | SCG2 |
| **3** | PG&E-E3 | PG&E-G3 | SCE3 | SDG&E3 | SCG3 |

Source: California Energy Commission

## 3. Allocation of Funds Method

To allocate program funds for each program year, the CEC will calculate the available funds by tiers presented in Table 4 for each utility service territory funding category. The calculation will be based on the final budget for each utility as approved by the CPUC for each program year as described in PUC 1615(a)(1).

CEC will allocate funds by application tier for each utility service territory funding category using the percentages shown in Table 5.

**Table 5: Available Funds by Application Tier**

| Tier | PG&E Electric | PG&E Gas | SCE | SDG&E | SCG |
|---|---|---|---|---|---|
| **1** | PG&E-E1: 10% | PG&E-G1: 10% | SCE1: 10% | SDG&E1: 10% | SCG1 10% |
| **2** | PG&E-E2: 10% | PG&E-G2: 10% | SCE2: 10% | SDG&E2: 10% | SCG2 10% |
| **3** | PG&E-E3: 80% | PG&E-G3: 80% | SCE3: 80% | SDG&E3: 80% | SCG3 80% |

Source: California Energy Commission

CEC will provide the amount of funds available for each utility service territory funding category and the funds available in each application tier in the notice of funding availability as described in Chapter 3.A, which will be issued for each funding round.

## 4. Funds Not Used in an Application Tier

If all funding originally allocated to a particular application tier is not disbursed at the conclusion of the applicable funding round, undisbursed funds may be reallocated to one or more other application tiers or reserved for a future funding round depending on current and projected applicant demand. Consistent with PUC Section 1615(c), funds cannot be reallocated to fund projects from one utility service territory to another.

## 5. GGRF Funding

The CalSHAPE Ventilation Program was allocated $20 million from the GGRF in the Budget Act of 2022 (Chapters 43 and 45, Statutes of 2022) to fund the replacement of HVAC systems identified during A&M Grant projects and is therefore a part of the

California Climate Investments. California Climate Investments is a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

The replacement equipment funded by the GGRF funding must be near-zero-emission building technology, as defined in the glossary. The GGRF funding does not have any utility service territory or location requirements that affect where it is spent. Therefore, the GGRF funding is not allocated to the utility service territory funding categories and will instead be awarded to qualifying projects throughout the state. The GGRF funding must be reserved for grant awards by June 30, 2026, and must be liquidated by June 30, 2029.

# C. CalSHAPE Ventilation Eligibility

## 1. Eligible Applicants

California LEAs are the eligible applicants for grants. An LEA is defined as any of the following:

a. A school district as defined in Section 41302.5 of the Education Code, which includes:
    1. County boards of education.
    2. County superintendents of schools.
    3. Direct elementary and secondary level instructional services provided by the state, including the Diagnostic Schools for Neurologically Handicapped Children as established under Article 1 (commencing with Section 59200) of Chapter 3 of Part 32 of the Education Code.
b. A charter school that has been granted a charter following Part 26.8 (commencing with Section 47600) of Division 4 of Title 2 of the Education Code.
c. A regional occupational center established pursuant to Section 52301 of the Education Code that is operated by a joint powers authority and that has an active career technical education advisory committee pursuant to Section 8070 of the Education Code.

California LEAs may apply for funding to be used for projects at schools that are in the service territory of utilities as defined herein. LEAs must demonstrate that each site meets service territory requirements. CEC staff will verify submitted information as needed to ensure compliance with the service territory requirements.

Authorized third parties may complete applications on behalf of LEAs but may not sign or enter into agreements on behalf of LEAs. A letter of authorization from the LEA, specifying any authority or responsibility delegated to the third party, is required as part of the application package. For the A&M Grants, no funding will be provided for the

costs of completing an application for funding or for third-party consultant fees for application or project-related work.

## 2. Eligible Schools

All sites that meet the requirements for eligible schools in this section and are in the service territory of at least one of the utilities, as provided in Section B, are eligible for a CalSHAPE Ventilation Program grant award.

LEAs may apply for grants to conduct activities at schools that:

a. Are on a site owned by the LEA.
b. Are on a publicly owned site, such as a site owned by a school district or other public entity, whether the LEA has a lease with that entity.
c. Are on a privately owned site, for which there is a lease with a term that exceeds the program duration, ending after December 1, 2026.

LEAs must provide proof of ownership or complying leases. Information on the documentation that may be provided as proof of ownership or complying lease is provided in Chapters 3.C and 6.C. Charter schools will be required to submit a current certificate of good standing with the application packages.

Sites that are located within the service territory of a community choice aggregator (CCA) or local publicly owned electric utility (POU) are not prohibited from participating in the program. School sites located within a CCA or POU may be eligible for funding based on the appropriate utility service territory funding category as described in Section C and Table 3.

PUC Section 1612 requires that the program offer funds to schools that are in an underserved community before schools that are not in an underserved community. The program defines an "underserved community" as meeting one of the following criteria:

1. Is a "disadvantaged community" as defined by Public Resources Code Section 75005(g).[1]

1 Public Resources Code Section 75005(g) currently defines "disadvantaged community" as a community with a median household income less than 80 percent of the statewide average.

2. Is included within the definition of "low-income communities" as defined by Health and Safety Code Section 39713(d)(2).[2]
3. Is within an area identified as among the most disadvantaged 25 percent in the state according to the California Environmental Protection Agency and based on the most recent California Communities Environmental Health Screening Tool, also known as CalEnviroScreen.
4. Is a community in which at least 75 percent of public school students in the project area are eligible to receive free or reduced-price meals under the National School Lunch Program.
5. Is a community located on lands belonging to a federally recognized California Indian tribe.

PUC Section 1612 requires that at least 25 percent of program projects be in underserved communities. PUC Section 1612 further requires the program prioritize schools with a boundary that is within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor or within 1,000 feet of a facility holding a permit pursuant to Title V of the Clean Air Act (42 U.S.C. Section 7661 et seq.). The CEC reserves the right to limit eligibility to achieve these statutory requirements or other program goals. The CEC will provide notification of any site eligibility changes or limitations in a funding round in the notice of funding availability or any updates to it.

## 3. Relationship to CalSHAPE Plumbing Applications and Awards

CalSHAPE Ventilation and CalSHAPE Plumbing are separate programs. LEAs are required to submit separate applications specific to each program.

## 4. Multiple Sources of Funding

Participation in another program does not prevent participation in the program. However, an LEA receiving program funding may not receive additional funds from another program that, when combined with program funding, exceed the total cost of the project. Furthermore, program funds shall be used only for distinct, eligible costs described in these guidelines that are not funded by another funding source. CEC reserves the right to review and audit all grant and funding award documents to ensure compliance with this requirement.

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2 Health and Safety Code Section 39713(d)(2) defines "low-income communities" as census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's list of state income limits adopted under Health and Safety Code Section 50093.

## D. Skilled and Trained Workforce Requirement

All repair, upgrade, replacement, or other technical work completed as part of an A&M Grant or U&R Grant must be performed by a skilled and trained workforce, which has the same meaning as in Section 2601 of the Public Contract Code and meet all other labor requirements as provided in PUC Division 1, Part 1, Chapter 8.7 and as described in these guidelines. LEAs may use in-house staff or contractors to complete the work as long as all staff meets applicable skilled and trained workforce requirements and all other labor requirements as provided in PUC Division 1, Part 1, Chapter 8.7 and as described in these guidelines appropriate to each activity completed.

## E. Payment of Prevailing Wage

The applicant shall ensure, to the extent applicable, the budget for the A&M and U&R Grants considers the payment of prevailing wages. These grants may be subject to public works requirements (Labor Code Section 1720 et seq.), a requirement of which is to pay prevailing wages. Applicants are responsible for complying with all applicable laws, which can include public works requirements.

Only the California Department of Industrial Relations (DIR) and courts of competent jurisdiction may issue legally binding determinations that a project is or is not a public works project. Applicants shall assume their projects are public works unless they obtain a determination to the contrary from DIR or an appropriate court. As such processes can be time-consuming, please plan accordingly given the application deadline. Without such a determination, applicants shall explain how they have included appropriate budgets for prevailing wages.

## F. Application Process

The application process has been designed to simplify the submission of applications and provide access to funding for projects that have been contracted and performed after August 1, 2020, seeking reimbursement, or for projects that are planned. A general description of the application process, which applies to both A&M and U&R grants, is provided in this section. The specific project and application requirements for each type of grant are provided in the following chapters.

- For A&M Grants, Chapter 2 – Project Requirements, Chapter 3 – Application and Award Requirements, and Chapter 4 – Project Completion and Reporting.
- For U&R Grants, Chapters 5 – Project Requirements, Chapter 6 – Application and Award Requirements, and Chapter 7 – Project Completion and Reporting.

The application and award process generally follows the following steps.

1. CEC issues a notice of funding availability with details of the total funding amounts available, the start and end dates for application acceptance, and the breakdown of funds by funding category and by tiers, as described in these guidelines.

2. LEAs submit grant applications electronically as required and described in the notice of funding availability.
3. The CEC reviews applications in the order that complete applications are received.
    a. CEC staff accept and review all applications submitted by the posted deadline.
    b. At any time, should the CEC determine that all funds in a single funding category and tier have been encumbered, the CEC may provide public notification of that determination but will continue to accept applications and identify LEAs that may be funded should additional funding become available.
4. The CEC grants funding awards for complete applications, at which time funds will be reserved for the LEA for approved projects.
5. Incomplete applications and applications deemed not to have met the application requirements will not be considered.
    a. The CEC will notify applicants if an application has minor errors or inconsistencies, and the applicant may reapply during the open application period. Depending on the volume and timing of applications received, the CEC may not always be able to review and notify applicants of applications with minor errors or inconsistencies during the open application period. Accordingly, applicants are encouraged to apply as early in the process as possible.
6. The CEC issues a notice of proposed award to an LEA with a complete application. The LEA must submit the additional required documents and complete and sign a grant agreement to reserve the grant award funding.
7. Once the CEC accepts the LEA's final application documents, the CEC will countersign the grant agreement and reserve funds for the applicant based on the costs in the submitted contractor estimate.
8. The LEA automatically receives a portion of the overall grant award after completion of the grant agreement, which is 50 percent of the overall grant award for A&M Grants and 25 percent of the overall grant award for U&R Grants. For A&M Grants, an additional 25 percent of the total grant award will be issued upon the CEC's receipt of a complete and accurate HVAC Assessment Report, as described in Chapter 2. For U&R Grants, the LEA may request reimbursement for incurred costs of up to an additional 50 percent of the total grant award. Any incurred costs greater than 75 percent of the total grant award will be included in the final invoice.
9. The LEA receives the remaining portion of the overall grant award after completion of the project and submission of final project reporting and invoicing for review and payment.
10. All projects must adhere to the requirements provided in these guidelines and must use all required forms to be eligible to receive a grant award and funding.

## G. Application Review

Applications for A&M and U&R grants will only be accepted electronically through the CEC's electronic submission system. A&M and U&R grant applications will be reviewed and approved in the same review queue on a first come, first served basis. All application forms or links and deadlines will be described in the notices of funding availability for each grant, as described in Chapter 3.A for A&M Grants and Chapter 6.A for U&R Grants. All applications submitted will be identified by the date and time received, and any applications received after the noticed deadline will not be accepted. The CEC will not accept applications via email or fax. Applications must use the CEC's electronic submission system.

The CEC will review each submitted application package to ensure all the required information has been provided. An application with minor errors or inconsistencies that do not affect the completeness of the package may still be considered for funding. If an applicant or the CEC discovers any minor errors or inconsistencies, the applicant will be given 15 business days excluding state and federal holidays or until the application deadline, whichever occurs first, to resubmit the application to resolve any errors or inconsistencies. If the application is resubmitted, but there are remaining or additional errors or inconsistencies discovered in the application, the applicant will be given an additional 15 business days excluding state and federal holidays or until the application deadline, whichever occurs first, to resubmit the application to resolve the errors or inconsistencies. If the applicant does not resubmit the application in the allowed time frame, the application will be rejected.

If an application is rejected during the open application period, the LEA may revise and resubmit the application during the same open application period. Depending on the volume and timing of applications received, the CEC may not always be able to review and notify applicants of errors during the open application period. If the applicant does resolve the errors or inconsistencies before the application deadline, the application will be approved or not approved accordingly following program requirements.

CEC staff will rank all approved applications by the date and time the final approved application was received. Grant applications will be processed until all available funds within each funding category and tier are awarded. Any approved grant applications received that exceed the amount of funds available in the current funding round for the funding category and application tier will be placed in order of date and time received on a priority list for funding if and when additional funds are made available.

# CHAPTER 2:
# A&M Grants Project Requirements

## A. Assessment and Maintenance Grants

An LEA may apply for a grant to improve the energy efficiency and performance of school ventilation systems and support the safety of schools through one of three grant pathways: (1) HVAC Assessment and Maintenance Pathway, (2) Scheduled for Replacement Pathway, and (3) Limited or No Mechanical Ventilation Pathway. Each grant pathway has specific requirements, which are provided in this chapter.

Each site awarded grant funding will follow only one grant pathway and must complete the process and meet the requirements as described for that grant pathway. The grant pathway and qualification criteria for each pathway are as follows:

1. HVAC Assessment and Maintenance Pathway — A site has at least one HVAC system, as defined in the glossary, that is not scheduled for replacement within two years of the application submittal date. An HVAC system is deemed scheduled for replacement if the LEA can provide the supporting documentation specified in Chapter 3.B for a site to qualify for this pathway. The project requirements specific to this pathway are provided in Section B.
2. Scheduled for Replacement Pathway — A site where all the HVAC systems at the site are scheduled for replacement within the two years of the application submittal date. The LEA must provide the supporting documentation specified in Chapter 3.B for the site to qualify for this pathway. The project requirements specific to this pathway are provided in Section D.
3. Limited or No Mechanical Ventilation Pathway — A site does not have an HVAC system, as defined by these guidelines in the glossary. The LEA must provide the supporting documentation specified in Chapter 3.B for the site to qualify for this pathway. The project requirements specific to this pathway are provided in Section E.

The project requirements that must be met for each grant pathway are shown in Table 6.

**Table 6: Project Requirements by Grant Pathway**

| Assessment and Maintenance Grant Requirements | **HVAC Assessment and Maintenance Pathway** | **Scheduled for Replacement Pathway** | **Limited or No Mechanical Ventilation Pathway** |
|---|---|---|---|
| Filter Installation | Yes | Yes | No |
| HVAC Assessment | Yes | No | No |
| HVAC Maintenance | Yes | No | No |
| CO2 Monitor Installation | Yes | Yes | Yes |
| 20% Contingency Fund for Repairs/Additional Maintenance | Yes | No | No |
| Limited or No Mechanical Ventilation Assessment | No | No | Yes |
| HVAC Assessment Report | Yes | Yes | Yes |
| HVAC Verification Report | Yes | Yes | Yes |
| Eligible for HVAC Upgrade and Repair Grant | Yes | No | Yes |
| Justification for Grant Pathway | No | Yes | Yes |

Source: California Energy Commission

Grant applications must specify the details of each site and provide contractor estimates for costs specific to complete the project requirements at each site. Awards will be made based on contractor estimates not to exceed the maximum award amount as described in Section H. Additional details on application requirements are provided in Chapter 3.

Certain work must be done by qualified personnel, and certain other work must be done by licensed professionals. An LEA receiving a grant must ensure that qualified personnel and licensed professionals, as defined in the glossary, perform their respective required work as set forth below. Moreover, the results and findings from assessments must be recorded in the HVAC Assessment Report as described in this chapter.

## B. HVAC Assessment and Maintenance Pathway Requirements

The HVAC Assessment and Maintenance Pathway requires an HVAC Assessment and Maintenance, as defined in the glossary and described in this section; completion of an HVAC Assessment Report; and carbon dioxide monitor installation. The grant award includes an

additional 20 percent of the requested amount as a contingency fund for repairs, upgrades, or replacements necessary to make the system functional or more energy efficient.

The prescriptive process for HVAC Assessment and Maintenance described in this section must be completed for all HVAC system units at the site that are not scheduled for replacement. Sites awarded a grant for this pathway must also complete the requirements of Section C, as well as Sections D and E to the extent applicable, and complete the HVAC Assessment Report and HVAC Verification Report as specified in Sections F and G, respectively.

As mentioned above, the A&M Grant includes a 20 percent contingency fund that may be used for repairs, upgrades, or replacements necessary to make the HVAC system functional or more energy efficient. Any additional repairs, upgrades, or replacements determined to be necessary during the assessment may be funded using the 20 percent contingency fund. These repairs, upgrades, or replacements must be documented as necessary to make the HVAC system functional or more energy efficient in the HVAC Assessment and Verification Reports to be determined as an eligible use of the contingency funds.

Deficiencies in the HVAC system operation or ability to meet ventilation requirements or complete the HVAC Assessment and Maintenance process must be documented in the HVAC Assessment Report for review by a licensed professional as described in this chapter. Grant funding for repairs and replacements identified in the HVAC Assessment and Verification Reports in excess of the 20 percent contingency amount might be eligible for a U&R Grant award. The project requirements for U&R Grants are provided in Chapter 5.

## 1. Filtration

The LEA receiving a program grant shall install filtration with a minimum efficiency reporting value (MERV) of 13 or better in the HVAC system where feasible. If MERV 13 is not feasible, then the highest MERV filtration that can be used in the HVAC system without adversely impacting the equipment shall be installed. The expected cost of filter replacement or upgrade must be included in the cost estimate provided with the grant application. The purchase of additional replacement filters is not an eligible cost and may not be included in the contractor estimate.

a. Qualified testing personnel shall test system capacity and airflow to determine the highest MERV filtration that can be installed without adversely impacting equipment, shall replace or upgrade filters where needed, and shall verify that those filters are installed correctly. The cost associated with any additional repairs such as adjustments or repairs to increase fan capacity is not an eligible cost as part of the A&M Grant but may be funded by the 20 percent contingency fund.

b. If a system uses ultraviolet germicidal irradiation (UVGI) to disinfect the air, the UVGI lamp shall be checked for proper operation, replacing bulbs as needed and verifying that the ultraviolet light does not shine on filters. The expected cost of a UVGI lamp replacement must be included in the cost estimate provided with the grant application. The purchase of additional UVGI lamps is not an eligible

cost and may not be included in the contractor estimate. The cost associated with any additional repairs and replacements is not an eligible cost as part of the A&M Grant but may be funded by the 20 percent contingency fund.

c. For systems with economizers, qualified testing personnel shall test system economizer dampers pursuant to Section B of CEC form CEC-NRCA-MCH-05-A–Air Economizer Controls (https://energycodeace.com/download/39547/file_path/fieldList/2019-NRCA-MCH-05-A-AirEconomizerControls.pdf).

    1. Economizer dampers and controls that are not properly functioning shall be repaired by a skilled and trained workforce. The cost associated with any additional repairs and replacements is not an eligible cost as part of the A&M Grant but may be funded by the 20 percent contingency fund.

d. Recommendations for additional maintenance, replacement, or upgrades to the above shall be recorded in the HVAC Assessment Report required under PUC Section 1626 and these guidelines.

## 2. Ventilation

After completing the filtration requirements described above, a qualified testing personnel shall verify the ventilation rates in the facility classrooms, auditoriums, gymnasiums, nurse's offices, restrooms, and other occupied areas to assess whether they meet the minimum ventilation rate requirements set forth in Table 120.1-A of Part 6 (commencing with Section 100.0) of Title 24 of the California Code of Regulations. The assessment shall include:

a. Calculation of the required minimum outside air-ventilation rates for each occupied area based on the anticipated occupancy and the minimum required ventilation rate per occupant set forth in Table 120.1-A. Calculations shall be based on maximum anticipated classroom or other occupied area occupancy rates and determined by the performing technician. Natural ventilation shall be designed in accordance with Section 402.2 of the California Mechanical Code (Part 4 [commencing with Section 1.1.0] of Title 24 of the California Code of Regulations) and shall include mechanical ventilation systems designed in accordance with Section 403.0, Section 404.0, or both sections of the California Mechanical Code.

b. Measurement of outside air under Section B of CEC form CEC-NRCA-MCH-02-A–Outdoor Air Acceptance (https://energycodeace.com/NonresidentialForms/2019) and verification of whether the system provides the minimum outside air ventilation rates calculated in subparagraph a) directly above.

c. Survey readings of inlets and outlets to verify all ventilation is reaching the served zone and there is adequate distribution. Verify if inlets and outlets are balanced within tolerance of the system design. Document read values and deficiencies. If the original system design values are not available, document

available information and note unavailability of system design values in the assessment report.

d. Verification of building pressure relative to the outdoors to ensure positive pressure differential and ensure the building is not over pressurized.

e. Verification of coil velocities and coil and unit discharge air temperatures required to maintain desired indoor conditions and avoid moisture carryover from cooling coils.

f. Verification that separation between outdoor air intakes and exhaust discharge outlets meet requirements of the California Building Code, including Section 120.1.

g. Confirmation that the air-handling unit is bringing in outdoor air and removing exhaust air as intended by the system design.

h. Measurement of all exhaust air volume for exhaust fans, including restrooms. Document any discrepancies from system design.

i. If the system does not meet the minimum ventilation rate requirements set forth in Table 120.1-A, the system shall be adjusted to the highest minimum ventilation possible without adversely impacting equipment performance. This deficiency should be documented in the HVAC Assessment Report along with the actual ventilation rate and the occupancy it can serve. A licensed professional or qualified adjusting personnel, as defined in the glossary, shall review the system airflow and capacity to determine if additional ventilation can be provided.

    1. If additional ventilation can be provided, a qualified adjusting personnel must adjust ventilation rates to meet the minimum ventilation rate requirements set forth in Table 120.1-A to the extent feasible. After the adjustment, the measurement and verifications required by b., d., and e. in the section above must be repeated. The costs of the adjustment of ventilation rates to meet the minimum ventilation rate requirements with existing equipment shall be included in the contractor estimate.

    2. If minimum ventilation rate requirements set forth in Table 120.1-A cannot be met, this deficiency shall be reported in the HVAC Assessment Report and the HVAC Verification Report (outlined in Section E below) and addressed by a licensed professional as required by this chapter.

## 3. Demand-Control Ventilation

a. If a demand-control ventilation is installed, it must be adjusted to a carbon dioxide set point of 800 parts per million (ppm) or less and tested by qualified testing personnel pursuant to Section B of CEC-NRCA-MCH-06-A–Demand Control Ventilation Systems Acceptance (https://energycodeace.com/NonresidentialForms/2019).

    1. If the demand-control ventilation system does not maintain average daily maximum carbon dioxide levels below 1,100 ppm, it must be disabled until such

time as the LEA determines that the COVID-19 crisis has passed unless disabling the control would adversely affect operation of the overall system.

2. When disabling a demand-control ventilation system, the system must be configured to meet the minimum ventilation rate requirements and tested and adjusted to provide a notification through a visual indicator on the monitor, such as an indicator light or other alert system, including, but not limited to, an electronic mail, text, or cellular telephone application, when the carbon dioxide levels in the classroom have exceeded 1,100 ppm.

b. Recommendations for additional maintenance, replacement, or upgrades for the demand-control ventilation shall be recorded in the HVAC Assessment Report, described in Section D. The cost associated with the additional maintenance, replacements, or upgrades is not an eligible cost as part of the A&M Grant but may be funded by the 20 percent contingency fund.

## 4. Coil Condition

a. A qualified testing personnel or a skilled and trained workforce shall verify:
   1. Coil condition.
   2. Condensate drainage.
   3. Cooling coil air temperature differentials (entering and leaving dry bulb).
   4. Heat exchanger operation.
   5. Drive assembly.

b. If repairs, replacement, or upgrades are necessary, these deficiencies shall be reported in the HVAC Assessment Report and the HVAC Verification Report and addressed by the licensed professional pursuant to PUC Sections 1626–1627, as described in Section D. The cost associated with the repairs, upgrades, or replacements is not an eligible cost as part of the A&M Grant but may be funded by the 20 percent contingency fund.

## 5. Additional Requirements

a. A qualified testing or adjusting personnel shall review control sequences to verify systems will maintain intended ventilation, temperature, and humidity conditions during school operation.
   1. For previously unoccupied buildings, perform the recommended practices of reopening a building as covered in the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Building Readiness document — Restarting a Building. Additional information can be found on ASHRAE's web page for Building Readiness (https://www.ashrae.org/technical-resources/building-readiness).
   2. Verify a daily flush is scheduled per ASHRAE Guidance for Reopening and Operating Schools and Buildings or otherwise applicable local or state guidance. Additional information can be found on ASHRAE's web page for Reopening of

Schools and Universities (https://www.ashrae.org/technical-resources/reopening-of-schools-and-universities).

3. Verify that HVAC system operational times, exhaust fans operation times, setpoints, and enabled features meet ASHRAE Guidance for Reopening and Operating Schools and Buildings or otherwise applicable local or state guidance.

b. If installed HVAC systems or system components are broken, fail to meet minimum ventilation requirements, or are unable to operate to the original design and intent, this information will be included in the HVAC Assessment Report prepared pursuant to PUC Section 1626, and described in Section D, which will be provided to a licensed professional for determination of appropriate corrective measures pursuant to PUC Section 1626. Repairs, upgrades, or replacements shall be performed by a skilled and trained workforce. The cost associated with the repairs, upgrades, or replacements will be limited to the contingency fund.

c. Requirements for filtration levels, ventilation rates, and ventilation schedules may be amended by the CEC based on the latest COVID-19 or other applicable guidance.

# C. Carbon Dioxide Monitoring

## 1. Installation

To ensure proper ventilation is maintained throughout the school year, all classrooms in schools receiving a program grant shall be equipped with a carbon dioxide monitor that meets all the following requirements:

a. The monitor is hardwired or plugged-in and mounted to the wall between three and six feet above the floor and, to the greatest extent feasible, at least five feet away from the door and operable windows. If the monitor is mounted less than five feet away from a door or operable window, information on the reason it was not feasible to mount it at least five feet away must be noted in the HVAC Assessment Report along with the distance the monitor was mounted from the door and operable windows.

b. The monitor displays the carbon dioxide readings to the teacher through a display on the device or other means such as a web-based application or cellular phone application.

c. The monitor provides a notification through a visual indicator on the monitor, such as an indicator light or other alert system, including, but not limited to, an electronic mail, text, or cellular telephone application, when the carbon dioxide levels in the classroom have exceeded 1,100 ppm.

d. The monitor maintains a record of previous data that include at least the maximum carbon dioxide concentration measured.

e. The monitor has a range of 400 ppm to 2,000 ppm or greater.

f. The monitor is certified by the manufacturer to be accurate within 75 ppm at 1,000 ppm carbon dioxide concentration and is certified by the manufacturer to require calibration no more frequently than once every five years.

g. The monitor and installation and initial adjustment of the monitor are the only costs eligible for grant funding and the only costs that shall be included in the contractor estimate. The total cost for all three of these items must not exceed the maximum award for monitor installation as specified in Section K.

### 2. Continued Monitoring of Classroom Carbon Dioxide Level

If a classroom carbon dioxide concentration exceeds 1,100 ppm more than once a week as observed by the teacher or the facility staff, the classroom ventilation rates shall be adjusted by qualified testing or adjusting personnel, as defined in the glossary, to ensure that peak carbon dioxide concentrations in the classroom remain below the maximum allowable carbon dioxide ppm set point.

The LEA is responsible for continued monitoring. The requirement for future adjustments by a qualified testing or adjusting personnel shall not be included in the contractor estimate.

Verification of the installation of carbon dioxide monitors in all classrooms shall be included in the HVAC Assessment Report, described below.

## D. Scheduled for Replacement Pathway Requirements

The Scheduled for Replacement Pathway allows filter replacement as described below and requires the installation of carbon dioxide monitors in each classroom consistent with the requirements of Section C, completion of an HVAC Assessment Report as specified in Section F, and an HVAC Verification Report as specified in Section G. This pathway does not include an assessment. As such, sites that receive grant funding for this pathway will not be eligible for the 20 percent contingency funds nor additional funding through a U&R Grant.

### 1. Filtration

The LEA receiving a grant for the Scheduled for Replacement Pathway may replace or upgrade system filtration as needed. If filtration is replaced or upgraded, the LEA shall install filtration with a MERV of 13 or better in the HVAC system, where feasible. If MERV 13 is not feasible, then the highest MERV filtration that can be used in the HVAC system without adversely impacting the equipment shall be installed.

Qualified testing personnel shall test system capacity and airflow to determine the highest MERV filtration that can be installed without adversely impacting equipment, shall replace or upgrade filters where needed, and shall verify that those filters are installed correctly. The expected cost of filter replacement or upgrade shall be included in the cost estimate provided with the grant application. The purchase of additional replacement filters is not an eligible cost and must not be included in the contractor estimate. The cost associated with any additional repairs or adjustments will not be funded by a program grant.

## E. Limited or No Mechanical Ventilation Pathway Requirements

The Limited or No Mechanical Ventilation Pathway requires all the following:

1. An assessment, as described in this section.
2. Completion of an HVAC Assessment Report, as specified in this section and in Section F.
3. Installation of carbon dioxide monitors in each classroom consistent with the requirements of Section C.
4. Completion of an HVAC Verification Report, as specified in Section G.

Qualified testing or adjusting personnel must complete the following assessment requirements and HVAC Assessment Report. The HVAC Assessment Report will provide the licensed professional with documentation to provide mechanical ventilation options to the LEA with limited assumptions.

### 1. Assessment Requirements

a. Verify the functionality and document nameplate data on any existing HVAC equipment (that is, heating only units, exhaust fans, and so forth), if any.

b. Verify and document the location of windows and doors that can be opened.

   1. Verify if windows have any switches or controls that initiate exhaust fans, motorized dampers, or other devices.

c. Verify if any existing mechanical, architectural, structural drawings match current conditions.

d. Provide a sketch of actual roof penetrations, penetration type (that is, vent pipe), and approximate locations if different from drawings.

e. Document locations of any vents that could contaminate outside air intake locations.

f. Document locations for potential installation of mechanical ventilation.

g. Photograph existing building, existing mechanical equipment (if applicable), and potential locations for mechanical ventilation equipment.

h. Document roof and wall type/material to the best of the technician's ability.

i. Document if existing mechanical equipment can be altered to provide outside air or if a dedicated outside air system is required.

j. Obtain information on central plant capacity (if applicable).

k. Document whether outside air conditions may make reliance on windows or other sources of nonfiltered outside air potentially hazardous to occupants.

l. Document recommendations for adding mechanical ventilation and filtration where none exists or for replacing a mechanical ventilation system where the current system is nonoperational.

## 2. Limited or No Mechanical Ventilation Assessment Report Requirements

Qualified testing personnel or qualified adjusting personnel shall prepare an HVAC Assessment Report for review by a licensed professional, as defined in the glossary, based on the requirements specified in the Assessment Requirements section above. The HVAC Assessment Report shall include all the information described below. Additional requirements for the HVAC Assessment Report that must be completed for the Limited or No Mechanical Ventilation Pathway are provided in Section F and Appendix B.

a. Name and address of school facility and person or contractor preparing and certifying HVAC Assessment Report.
b. Documentation of existing HVAC infrastructure, including the functionality and nameplate data.
c. Documentation of the location of windows and doors that can be opened and windows with any switches or controls that initiate exhaust fans, motorized dampers, or other devices.
d. The verified existing mechanical, architectural, structural drawings match current conditions.
e. The sketch of actual roof penetrations, penetration type (that is, vent pipe) and approximate locations if different from drawings.
f. Documentation locations of any vents that could contaminate outside air intake locations.
g. Photographs of existing building, existing mechanical equipment (if applicable), and potential locations for mechanical ventilation equipment.
h. Documentation roof and wall type/material.
i. Documentation of existing mechanical equipment can be altered to provide outside air or if a dedicated outside air system is required.
j. Information on central plant capacity (if applicable).
k. Documentation of whether outside air conditions may make reliance on windows or other sources of nonfiltered outside air potentially hazardous to occupants.
l. Documentation of recommendations for adding mechanical ventilation and filtration where none exists or for replacing a mechanical ventilation system where the current system is nonoperational.
m. Monthly electricity meter data, if requested by CEC program staff.
n. LEAs may be required to submit additional information as described or otherwise required by these guidelines, including but not limited to the information described in Appendix B.

## F. HVAC Assessment Report

Qualified testing personnel or qualified adjusting personnel shall prepare an HVAC Assessment Report based on the requirements specified for each pathway in Sections B, C, D, and E above. The HVAC Assessment Reports completed for sites following the HVAC Assessment and Maintenance and Limited or No Mechanical Ventilation Pathways shall be reviewed by a licensed professional, as defined in the glossary and described in this section. The HVAC Assessment Report completed for the Scheduled for Replacement Pathway is not required to be reviewed by a licensed professional because this pathway does not require an assessment and is not eligible for additional funding through a U&R Grant.

The HVAC Assessment Report completed for each pathway shall include the following information as specified in Table 8, below, in the required form or formats.

1. Name and address of school facility and person or contractor preparing and certifying HVAC Assessment Report.
2. Documentation of HVAC equipment model number, serial number, general condition of unit, and any additional information that could be used to assess replacement and repair options given potential for increased energy efficiency benefits.
3. Either verification that MERV 13 filters have been installed or verification that the maximum MERV-rated filter that the system is able to effectively handle has been installed and what that MERV rating is.
4. The verified ventilation rates for facility classrooms, auditoriums, gymnasiums, nurses' offices, restrooms, offices, and other occupied areas, and whether those rates meet the requirements set forth in Table 120.1-A. If ventilation rates do not meet applicable requirements, then an explanation for why the current system is unable to meet those rates shall be provided.
5. The verified exhaust for facility classrooms, auditoriums, gymnasiums, nurses' offices, restrooms, and other occupied areas and whether those rates meet the requirements set forth in the design intent.
6. Documentation of system deficiencies and recommendations for additional maintenance, replacement, or upgrades to improve energy efficiency, safety, or performance.
7. Name of the utility that provides electricity service and monthly electricity meter data.
8. Documentation on existing HVAC infrastructure to assist the Design Professional in determining ventilation options, as described in Section E for the Limited or No Mechanical Ventilation Pathway.

LEAs may be required to submit additional information as described or otherwise required by these guidelines, including, but not limited to, the information described in Appendix B.

The HVAC Assessment Report Worksheets will be made available for use in developing the report on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

The HVAC Assessment Report Worksheets includes 10 worksheets as described in Appendix B and listed in Table 7, below. Table 7 provides information on which worksheets of the HVAC Assessment Report must be completed and submitted with the final reporting for each of the three grant pathways.

**Table 7: HVAC Assessment Report Requirements by Grant Pathway**

| HVAC Assessment Report Required Information | **HVAC Assessment and Maintenance Pathway** | **Scheduled for Replacement Pathway** | **Limited or No Mechanical Ventilation Pathway** |
|---|---|---|---|
| 1. System Overview | Yes | No | No |
| 2. Filtration System | Yes | Yes | No |
| 3. Ventilation Rate | Yes | No | No |
| 4. Economizer Operation | Yes | No | No |
| 5. Demand-Control Ventilation | Yes | No | No |
| 6. Air Distribution and Building Pressure | Yes | No | No |
| 7. General Maintenance | Yes | No | No |
| 8. Operational Controls | Yes | No | No |
| 9. CO2 Monitoring | Yes | Yes | Yes |
| 10. Limited or No Existing Mechanical | No | No | Yes |

Source: California Energy Commission

## 1. Review of HVAC Assessment Report

A licensed professional shall review the HVAC Assessment Report completed for sites following the HVAC Assessment and Maintenance Pathway and:

a. Determine what, if any, additional adjustments, or repairs would be necessary to meet the minimum ventilation and filtration requirements.

b. Determine whether any cost-effective energy efficiency upgrades or replacements are warranted or recommended.

c. Provide an estimated cost for all identified work.

If the cost of recommended repairs, upgrades, or replacements are greater than the 20 percent contingency amount provided in the grant, then the licensed professional and the LEA may apply for additional funding through a U&R Grant, as described in Chapter 6.

The provision of any additional funding for repairs, upgrades, or replacements shall be conditioned on the applicant ensuring that all construction work funded, in whole or in part, by the additional funding is performed by a skilled and trained workforce.

### 2. Review of Limited or No Mechanical Ventilation HVAC Assessment Report

A licensed professional shall review the HVAC Assessment Report completed for sites following the Limited or No Mechanical Ventilation Pathway and:

a. Determine recommendations for adding mechanical ventilation and filtration where none exists or for replacing a mechanical ventilation system where the current system is nonoperational.

b. Provide an estimated cost for all identified recommendations.

The LEA may apply for funding for this work through a U&R Grant, as described in Chapter 6. The provision of any additional funding for repairs, upgrades, or replacements shall be conditioned on the applicant ensuring that all construction work funded, in whole or in part, by the additional funding is performed by a skilled and trained workforce.

## G. HVAC Verification Report

Upon completion of all work funded by a program grant, the LEA shall prepare and submit an HVAC Verification Report for each site included in the grant. The HVAC Verification Report must include the following information as specified for each grant pathway in Table 8, below, in the required form or formats.

1. Name and address of school facility and person or contractor preparing and certifying report.
2. Description of assessment, maintenance, adjustment, repair, upgrade, and replacement activities and outcomes.
3. Verification that the LEA has complied with all applicable program requirements, including Article 3 of Chapter 8.7 of Part 1 of Division 1, starting with Section 1620 of the PUC, and as described in these guidelines.
4. Verification that either MERV 13 filters have been installed or that the maximum MERV-rated filter that the system is able to effectively handle has been installed and what that MERV rating is.
5. The verified ventilation rates for facility classrooms, auditoriums, gymnasiums, nurses' offices, restrooms, offices, and other occupied areas and whether those rates meet the requirements set forth in Table 120.1-A. If ventilation rates do not meet applicable guidance, then an explanation for why the current system is unable to meet those rates shall be provided.

6. The verified exhaust for facility classrooms, auditoriums, gymnasiums, nurses' offices, restrooms, and other occupied areas and whether those rates meet the requirements set forth in the design intent.
7. Documentation of system deficiencies and recommendations for additional maintenance, replacement, or upgrades to improve energy efficiency, safety, or performance, or for additions of mechanical ventilation and filtration where none exists.
8. Documentation of initial operating verifications, adjustments, and final operating verifications, and documentation of any adjustments or repairs performed.
9. Verification of installation of carbon dioxide monitors, including make and model of monitors.
10. Verification that all construction work has been performed by a skilled and trained workforce and all required work has been performed by qualified testing or adjusting personnel or other qualified technician as specified by the program guidelines, including the provision of:
    a. Contractor's name and license number.
    b. Acceptance test technician name and certification number, where applicable.
    c. TAB technician name and certification number, where applicable.

**Table 8: HVAC Verification Report Requirements by Grant Pathway**

| HVAC Verification Report Required Information (Items 1–10 listed above) | **HVAC Assessment and Maintenance Pathway** | **Scheduled for Replacement Pathway** | **Limited or No Mechanical Ventilation Pathway** |
|---|---|---|---|
| 1 | Yes | Yes | Yes |
| 2 | Yes | Yes | Yes |
| 3 | Yes | No | No |
| 4 | Yes | No | No |
| 5 | Yes | No | No |
| 6 | Yes | No | No |
| 7 | Yes | No | No |
| 8 | Yes | No | No |
| 9 | Yes | Yes | Yes |
| 10 | Yes | Yes | Yes |

Source: California Energy Commission

The HVAC Verification Report form will be made available for use in developing the report on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

LEAs may be required to submit additional information as described or otherwise required by these guidelines.

The LEA must maintain a copy of the HVAC Verification Report for at least three years from the grant award date and make it available to anyone upon request.

## H. Reimbursement of Work Already Performed

Under PUC Section 1621(c)(3), LEAs may submit grant applications for reimbursement of assessment and maintenance projects where the work was **contracted and performed** after August 1, 2020, and the project meets the requirements of PUC Sections 1622 to 1627, inclusive. Any projects seeking reimbursement must also meet all requirements as specified in these guidelines. Any grant applications for reimbursement of work contracted and performed after August 1, 2020, shall make clear which work is being requested to be paid on a reimbursement basis.

The LEA must also provide documentation or a certification that the work was **contracted and performed** after August 1, 2020 and provide a description of the documentation supporting this certification. CEC retains the right to request copies of all referenced documentation. PUC Section 1621(c)(3) requires both the work contract and performance to occur after August 1, 2020. If the LEA contracted for the work **before** August 1, 2020, but the work was performed after August 1, 2020, it is not eligible for funding.

Grant applications for work contracted and performed after August 1, 2020, must also include all final reporting information as described in Chapter 4. All estimates, assessment, and verification reports must be dated and indicate that all work was completed after August 1, 2020.

The applicant must provide the required documentation confirming that all grant work was done by qualified personnel, licensed professionals, and a skilled and trained workforce, as required and defined in these guidelines.

## I. Grant Budget

The budget for each LEA grant award will be equal to the sum of approved individual site budgets for all eligible sites included in the LEA grant application. Each site budget will be equal to the amount of the contractor estimate for eligible work to be completed at that site not to exceed the maximum award as specified in Section K. CEC program staff will review the contractor estimate and determine the approved site budget based on program requirements, including eligible cost requirements in these guidelines and SEES Program statutes.

The approved site budget for a site in the HVAC Assessment and Maintenance Pathway will include a 20 percent contingency fund for repairs, upgrades, or replacements necessary to make the system functional or more energy efficient. The 20 percent contingency fund will be

calculated by taking 20 percent of the total approved budget for all eligible items in the HVAC Assessment and Maintenance Pathway. Table 9 provides a description and calculation of the approved site budget of an example site following the HVAC Assessment and Maintenance Pathway formula for maximum award amounts. The calculation of an actual approved site budget will use the amounts requested in the application and verified by a contractor estimate not to exceed the maximum award amounts.

**Table 9: Example of Approved Site Budget for HVAC Assessment and Maintenance Pathway**

* Calculation based on an example site: A school with 50 HVAC system units, 50 filters, and 20 classrooms.

| Calculation Description | Calculation Example |
|---|---|
| **HVAC Assessment and Maintenance and HVAC Assessment Report** — Approved budget | $10,000 + ($1,000 x 50) = $60,000 |
| **Filter Replacement** — Approved budget for purchase and installation | $75 x 50 = $3,750 |
| **Carbon Dioxide Monitors** — Approved budget for purchase and installation | $600 x 20 = $12,000 |
| **20 Percent Contingency Fund** = 20 percent of sum of approved budgets for:<br>• HVAC Assessment and Maintenance<br>• HVAC Assessment Report<br>• Filter Replacement<br>• Carbon Dioxide Monitors | 0.20 x ($60,000 + $3,750 + $12,000) = $15,150 |
| **Approved Site Budget** = Sum of 20 Percent Contingency Fund and approved budgets for:<br>• HVAC Assessment and Maintenance<br>• HVAC Assessment Report<br>• Filter Replacement<br>• Carbon Dioxide Monitors | $15,150 + $60,000 +$3,750 + $12,000 = $90,900 |

Source: California Energy Commission

The 20 percent contingency fund will be added to the approved site budget and will be part of the total grant award. The approved site budget for sites following the Scheduled for Replacement and Limited or No Mechanical Ventilation Pathways will not include a 20 percent contingency fund.

Approved budgets are site-specific, and the 20 percent in contingency funds must be spent for the site for which the 20 percent is allocated. The 20 percent contingency awarded for one site

may not be used to complete work at another site, even within the same LEA. No additional funding will be awarded if costs exceed the applied and approved site budget, so applicants are encouraged to prepare their application accordingly.

Any grant award funding, including any 20 percent contingency awarded funds, shall be returned to the CEC if not used for eligible purposes as specified in these guidelines. See Chapter 3 for more information.

## J. Maximum Award

The approved site budget will not exceed the following maximum award amounts for each of the items specified:

1. $10,000 plus $1,000 per HVAC system unit for the HVAC Assessment and Maintenance, as defined in the glossary, and completion of the HVAC Assessment Report in the HVAC Assessment and Maintenance Pathway
2. $4,000 for the modified assessment and completion of the HVAC Assessment Report in the Limited or No Mechanical Ventilation Pathway
3. $2,000 for the completion of the HVAC Assessment Report for the Scheduled for Replacement Pathway
4. $75 for the purchase and installation of each filter replacement
5. $600 for the purchase and installation of carbon dioxide monitors in each classroom

## K. Project Term

For each A&M Grant project, the LEA will have up to 24 months to complete all work and submit the final reporting documentation described in Chapter 4.

# CHAPTER 3:
# A&M Grant Applications and Awards

This chapter provides information for participation in the initial phase of program awards, which is for A&M Grants, including the required application forms and supporting documentation, a description of the process used by the CEC to approve applications and determine grant awards, payment of funds, and project and reporting requirements. A general description of the application and award process for A&M and U&R Grants is provided in Chapter 1.G.

The CEC offers funding in the initial phase of program awards for projects for an assessment, completion of an HVAC Assessment Report, general HVAC maintenance, adjustment of ventilation rates, filter replacement, and carbon dioxide monitor installation. Depending on the pathway, some or all of these elements comprise an A&M Grant. The funding award amounts will be made based on a contractor's site-specific estimate for the eligible work not to exceed the maximum award plus an additional 20 percent contingency fund for the HVAC Assessment and Maintenance Pathway. CEC does not award funds for upgrade, repair, or replacement costs above the 20 percent contingency amount in the initial phase of program awards.

An LEA that has completed an A&M Grant project may submit applications for a U&R Grant for the upgrade, repair, or replacement costs above the 20 percent contingency amount. The application and award requirements for U&R Grants are provided in Chapter 6.

## A. Notice of Funding Availability

The CEC will issue a notice of funding availability identifying the anticipated funding to be made available in each round of grants. The notice of funding availability will identify any relevant application dates, including the first and last date applications can be submitted and any funding restrictions applicable to that funding round. When issuing a notice of funding availability, CEC reserves the right to limit eligibility, or include a priority application period or other funding conditions, to achieve the program's statutory requirements or other program goals. Dates, eligibility, and other details may be adjusted by the CEC through the issuance of a notice updating information.

## B. Application Limits

There are no restrictions on the number of applications that an LEA can submit for A&M Grant funds in each funding round or the number of sites an LEA can include in a single application. A site can only be included once and cannot be included in multiple applications.

## C. Application Package

Eligible applicants must submit a complete application package for an A&M Grant using the electronic submission process and system identified in the notice of funding availability issued by the CEC. The application package must include the following in the required form or

formats. The information required in the application form is listed in Appendix A of these guidelines, and all forms will be made available for use in developing the application package on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

1. Applicant Details (Ventilation-1): LEA information including official name, address, responsible parties, contact information, description of LEA territory, schools, and specific site information to determine the applicable grant pathway.
2. Overall, Grant Request Summary (Ventilation-2): Grant site and budget summary page and status of all site-specific work, including start date and projected end date. Identification of whether the grant application is seeking reimbursement for work contracted for and completed after August 1, 2020, or for work planned to be completed. The status will be entered individually for each site. Only applications with all sites completed are considered for reimbursement grants.
3. Site-Specific Details (Ventilation-3): Detailed information identifying all sites to be addressed by the grant, general site information, identification of the number and type of HVAC units on site, number of buildings for carbon dioxide monitoring, project completion status, and total site-specific estimate for assessment and maintenance project.
4. The LEA self-certifies:
    a. It will follow the program guidelines.
    b. The information included in the application package is true and correct to the best of the LEA's knowledge.
    c. It will obtain Division of the State Architect (DSA) project approval as applicable under California Code Regulations, Title 24.
    d. It acknowledges that the expended funds may be subject to audit, including a financial audit.
    e. It will comply with all reporting requirements.
    f. It will comply with all A&M Grant terms and conditions.
    g. It will comply with all skilled and trained workforce requirements.
    h. All applicable DIR and Labor Code requirements on public works, including the payment of prevailing wage, will be followed.
    i. It acknowledges that it may be subject to a post program site visit and measurement and evaluation study conducted by the CEC or its delegate.
5. Supporting documentation:
    a. Site-specific contractor estimate supporting each site-specific amount requested.
        1. To be deemed complete, a contractor estimate must be itemized and include all required details.
    b. Certificate of good standing for charter school applicants.

c. Letter of authorization for third-party applicants.
d. Acceptable documentation for proof of ownership or complying lease includes:
    1. For sites owned by a school district, a letter signed by a school district official or authorized staff with a list of the sites and an attestation that the sites are owned by the school district.
    2. For sites owned by a charter school, a copy of the property deed, county records, or other official public document that confirms the charter school's ownership of the site.
    3. For leased sites, a copy of the lease with a term that exceeds the program duration, ending after December 1, 2026. If the lease term does not end after December 1, 2026, the LEA may submit a letter of intent signed by the site owner with a statement that the owner intends to renew the lease with the LEA for a term that ends after December 1, 2026.
e. Required documentation for the Scheduled for Replacement Pathway. One of the following must be provided:
    1. A facility master plan, or similar document, showing a plan for the system to be replaced within two years. Documentation should also identify funding reserved for the proposed project.
    2. An executed contract for the system replacement.
f. Required documentation for the Limited or No Mechanical Ventilation Pathway:
    1. Documentation that confirms the site does not have an HVAC system, as defined in the glossary. Documentation may include site photographs, or mechanical/site drawings.

## D. Contractor Estimates

The amount requested in the application package may only be for reasonable costs to complete the work and requirements of the site's grant pathway, as described in Chapter 2, which includes:

1. HVAC Assessment and Maintenance Pathway:
    a. Assessments and general maintenance as specified in Chapter 2.B — HVAC Assessment and Maintenance Pathway Requirements
    b. Carbon dioxide monitor installation or replacement as specified in Chapter 2.C – Carbon Dioxide Monitoring
    c. HVAC Assessment reports as specified in Chapter 2.F – HVAC Assessment Report
    d. Review of HVAC Assessment Report as specified in Chapter 2.F – HVAC Assessment Report
2. Scheduled for Replacement Pathway:

a. Filter replacement as specified in Chapter 2.D – Scheduled for Replacement Pathway Requirements
b. Carbon dioxide monitor installation or replacement as specified in Chapter 2.C – Carbon Dioxide Monitoring
c. Modified HVAC Assessment Report as specified in Chapter 2.F – HVAC Assessment Report

3. Limited or No Mechanical Ventilation Pathway:
   a. Modified assessment as specified in Chapter 2.E – Limited or No Mechanical Ventilation Pathway Requirements
   b. Carbon dioxide monitor installation or replacement as specified in Chapter 2.C – Carbon Dioxide Monitoring
   c. Modified HVAC Assessment Report as specified in Chapter 2.F – HVAC Assessment Report
   d. Review of Limited or No Existing Mechanical Ventilation Assessment Worksheet as specified in Chapter 2.F – HVAC Assessment Report

The contractor estimate must include a detailed site-specific budget, timeline, and a clear and accurate description of the work that will be provided. The site-specific budget needs to show line-item cost estimates for materials, labor, and other costs. Any amount included as other costs must include a brief narrative explaining the use of these funds.

The LEA will be required to submit the original contractor estimate as part of the application package to demonstrate that all costs are reasonable for the work to be completed. The contractor estimate should include supporting documentation demonstrating that the scope of work is consistent with the requirements of these guidelines, as listed in Chapter 2.

Ineligible costs, as described in Chapter 3.I, cannot be included as part of the contractor estimate. Additional information consistent with these guidelines may be required from applicants to complete the grant agreement after notification of the grant award. Additional costs not provided for in applicable program statute or these guidelines will not be approved as part of the grant award. As noted, grants can be provided on a reimbursement basis for work **contracted for and completed** after August 1, 2020. The contractor estimate provided in support of a reimbursement grant must indicate that the estimate was completed after the August 1, 2020, date. Projects that have completed an estimate prior to August 1, 2020, will still be eligible to apply for an award, but funding will cover only work contracted for and completed after that date.

The CEC does not have authority to authorize LEAs to use a particular procurement method for use of these funds. LEAs will have to rely on their own existing authority and shall comply with applicable law.

## E. Notice of Proposed Award and Completion of Grant Agreement

Following approval of an application, CEC staff will send a notice of proposed award to the successful LEA and request the following additional information to complete the grant agreement, consistent with these guidelines:

1. Payee Data Record (STD-204): Required for grant award payment.
2. An authorizing document from the governing body, such as a resolution authorizing acceptance of the award and entering award agreement.
3. A signed grant agreement indicating that the LEA has read and accepts the terms and conditions.

Failure to agree to the terms and conditions by taking actions such as failing to sign the grant agreement or indicating that acceptance is based on modification of the terms will result in rejection of the application. The CEC reserves the right to modify the terms and conditions prior to executing the grant agreement.

At the time the grant agreement is fully executed and received by the CEC, the grant award funding will be reserved for the LEA. Grantees will receive an advance payment of 50 percent of the total grant award after notification of the funding reservation.

For grants seeking reimbursement for projects contracted for and completed after August 1, 2020, the grantee will first need to enter into a grant agreement with the CEC and then provide the final required project reporting and invoicing documentation to receive payment of the full grant award. Additional information on project reporting and invoicing is provided in these guidelines, and further guidance will be made available to grantees.

## F. Payment of Grant Funds

The CEC expects to receive funding for the program from participating utilities quarterly. Payment to grantees is conditioned on CEC receipt of funding.

The CEC will issue an email notice to approved grant applicants identifying the amount of the award. As noted above, the LEA will be awarded the CEC-approved amount requested, which must equal the total of each site-specific budget not to exceed the maximum award, as specified in Chapter 2.K.

The grant award for sites meeting the requirements of the HVAC Assessment and Maintenance Pathway will include a contingency fund of an additional 20 percent of the approved amount for the HVAC assessment, general maintenance, adjustment of ventilation rates, and completion of the HVAC Assessment Report. The 20 percent contingency funds can only be used for HVAC repairs, upgrades, or replacements necessary to make the HVAC system functional or more energy efficient, as described below. Although not required to be included in the estimate of work to be done, after the project is completed, the LEA will be required to provide documentation demonstrating how the contingency funds were spent.

At the conclusion of the project, all unspent funds, including any unspent contingency funds, shall be returned to the CEC. Furthermore, any grant funds not used in accordance with

program requirements, including grant agreement terms and conditions, shall be returned to the CEC.

### 1. Contingency Funds Eligible Costs

Only costs required to complete work identified in the HVAC Assessment and Verification Reports as necessary to make the HVAC system functional or more energy-efficient will be deemed eligible costs for expending the 20 percent contingency funds. The contingency funds may be used to cover cost overruns but cannot be used to pay for consultant fees or any portable equipment not directly connected to the eligible HVAC systems as described in PUC Section 1622.

Funds must be used on the specific site for which they were awarded and cannot be transferred or used at another site. In documenting the appropriate use of the funds during final reporting, the LEA will be required to identify specifically where in the HVAC Assessment Report the identified repairs or upgrades are called for and the related expenditures using the contingency funds were spent in accordance with the assessment.

## G. Timing of Payment

The CEC will issue a portion of funds in advance equal to 50 percent of the overall grant award. Upon approval of an award, the grantee will receive a notice of proposed award from the CEC, and a grant agreement will be executed. After grant agreement execution, the CEC will approve payment of advance funds equal to 50 percent of the overall award for all sites represented in the grant agreement to be issued by the State Controller's Office (SCO). SCO expects to be able to issue payments within four weeks once the LEA completes the grant agreement and all required documentation is reviewed and approved by the CEC.

An additional 25 percent of the grant funds will be issued upon the CEC's receipt of a complete and accurate HVAC Assessment Report. The remaining 25 percent of the grant funds will be issued upon the CEC's receipt and review of all final required reporting, including complete reporting of how contingency funds were spent on a site-specific level of detail. The LEA shall provide the CEC with additional documentation, as specified in the Reporting section of these guidelines, demonstrating how contingency funds were used.

All project requirements, as specified in Chapter 2, must be completed to receive A&M Grant funding. There will be no payment issued for the partial completion of the project requirements. If the LEA received advanced funds and does not complete all the project requirements, any grant award funding, including any 20 percent contingency awarded funds, shall be promptly returned to the CEC.

**CEC staff will issue payment for the final invoice once and only when all final reporting is submitted and approved by CEC staff.**

## H. Additional Funding for Repair or Replacement

A licensed professional must review the HVAC Assessment Report and perform all of the following:

1. Determine what, if any, additional adjustments, or repairs would be necessary to meet the minimum ventilation and filtration requirements.
2. Determine whether any cost-effective energy efficiency upgrades or replacements are warranted or recommended.
3. Provide an estimated cost for this work.

If a licensed professional identifies cost-effective energy efficiency upgrades or repairs that would exceed the 20 percent contingency amount awarded, those repairs must be documented as described in the HVAC Assessment Report and HVAC Verification Report sections of these guidelines.

For sites that completed the Limited or No Mechanical Ventilation Pathway, a licensed professional must review the Modified HVAC Assessment Report and determine recommendations for adding mechanical ventilation and filtration where none currently exists or replacing a system that is nonoperational, and then provide a cost estimate for this work. These recommendations must be documented as described in the modified HVAC Assessment Report and HVAC Verification Report sections of these guidelines.

LEAs may apply for U&R Grant funding for these additionally identified upgrades or a portion thereof as described in Chapters 5, 6, and 7.

## I. Ineligible Costs

Grant award funding can be used only for direct costs and work performed in accordance with the terms of the grant agreement.

Costs that are ineligible to be paid with grant funding include, but are not limited to:

1. Costs, other than those noted above, incurred outside the terms of the grant agreement with the CEC.
2. Costs associated with the use and continuous monitoring of the carbon dioxide monitors, such as electrical improvements, subscription services, storage, and central hubs.
3. Purchase of equipment not an integral part of the project.
4. Replacement of existing funding sources for ongoing programs.
5. Costs stemming from DSA requirements.
6. Consultant fees.

# CHAPTER 4:
# A&M Grants Project Completion and Reporting

## A. Completion of Projects

As noted, grant recipients will have 24 months to complete all A&M Grant funded work and final reporting requirements. Although the CEC may issue a reminder of the project deadline, it is the grant recipients' responsibility to monitor project completion and meet all required reporting and invoicing deadlines.

LEAs shall submit final reporting electronically using the system or process required by the CEC at the time the reporting is due. The CEC will provide all forms, formats, and guidance needed to assist in reporting on the CalSHAPE Program web page.

## B. Reporting

PUC Section 1618 notes the reduction in greenhouse gases (GHG) and energy savings attributed to a project funded by the CalSHAPE Program shall be attributed to the utility that provided those funds when determining compliance with applicable GHG or energy-efficiency saving mandates. The baseline for determining reductions in emissions of greenhouse gases and energy savings from the program shall be the energy demand and emissions of GHG that would have occurred if ventilation and filtration recommendations for reopening schools were met without the assessment, adjustment, maintenance, repairs, and efficiency upgrades funded under the CalSHAPE Ventilation Program.

Energy and GHG savings are not a required element of the HVAC Assessment or Verification Report. Nonetheless, additional data or information may be requested from the grantee to allow the CEC to determine the GHG reductions and energy savings following PUC Section 1618. The LEA, contractor, licensed professional, or a combination thereof shall cooperate with CEC staff or CEC consultants in any assessment of the energy and GHG savings of a project, including providing access to the project site and providing project and equipment information. The cost associated with any additional reporting or assessment will not be funded by a program grant.

## C. Final Reporting and Invoice for Remaining Funds

After the A&M Grant project has been completed, the applicant will submit a final document package to the CEC that includes:

1. HVAC Assessment Report, as specified in Chapter 2.F.
2. HVAC Verification Report as specified in Chapter 2.G.
3. Site-specific project summary detailing the use of contingency funding.
4. Final invoice(s) and any other supporting documentation for all expended grant funds up to the original grant award amount for each site. The invoices must provide site-

specific information and be itemized to show both the material and labor costs for the project work as described in the grant agreement.

5. Any reporting required to determine compliance with PUC Section 1618, as described in Section B above, to calculate or confirm energy savings or reduction in greenhouse gas emissions resulting from the project.
6. The LEA self-certifies:
    a. It followed the program guidelines.
    b. The information included in the final document package is true and correct to the best of the LEA's knowledge.
    c. All California Environmental Quality Act (CEQA) requirements are completed.
    d. It has obtained any required Division of the State Architect (DSA) project approvals as applicable under California Code Regulations, Title 24.
    e. It acknowledges that the expended funds may be subject to an audit, including a financial audit.
    f. It complied with all reporting requirements.
    g. It complied with all A&M Grant terms and conditions.
    h. It complied with all skilled and trained workforce and other labor requirements.
    i. It complied with any applicable labor code requirements on the payment of prevailing wage.
    j. All DIR requirements for public works, including payment of prevailing wages, were followed.
    k. It commits to participate with the CEC or its delegate in the assessment of energy savings or GHG emission reductions, including providing access to project sites and project and equipment information.
    l. It acknowledges that it may be subject to a post program site visit and measurement and evaluation study conducted by the CEC or its delegate.

## D. Time Extension Requests

Grant recipients may request a one-time extension to complete final reporting. The extension will be no more than six months and will not exceed the final program reporting deadline date of June 1, 2026.

# CHAPTER 5:
# U&R Grants Project Requirements

## A. Upgrade and Repair Grants

An LEA that has completed an A&M Grant project at a site in the HVAC Assessment and Maintenance Pathway or Limited or No Mechanical Ventilation Pathway may apply for additional funding to make cost-effective energy efficient repairs, upgrades or replacements recommended by the licensed professional in the review of the HVAC Assessment Report. Sites with completed A&M Grant projects in the Scheduled for Replacement Pathway are not eligible for U&R grant funding, as specified in Chapter 2.D.

A U&R Grant project includes the repairs, upgrades, and replacements of HVAC or ventilation systems and requires the use of eligible equipment, completion of mechanical acceptance testing, and submittal of a project completion report as provided in this chapter. The project completion report is submitted as part of the final reporting. Additional information on final reporting requirements is provided in Chapter 7.

The project requirements that must be met for repairs, upgrades, and replacements are shown in Table 10.

**Table 10: Upgrade and Repair Grant Project Requirements**

| Upgrade and Repair Grant Requirements | **Repair** | **Upgrade** | **Replacement (Including HVAC Systems and Other Ventilation Systems)** |
|---|---|---|---|
| Documented in HVAC Assessment Report | Yes | Yes | Yes |
| Recommended by Licensed Professional | Yes | Yes | Yes |
| Electric Equipment Only | No | No | Yes - Hybrid heating systems are acceptable with appropriate documentation. See Section C. |
| Mechanical Acceptance Testing | Yes | Yes | Yes |
| Project Completion Report | Yes | Yes | Yes |

Source: California Energy Commission

Grant applications must specify the details of each site and provide contractor estimates for costs specific to completing the project requirements at each site. Awards are site-specific and will be made based on contractor estimates not to exceed the maximum award amount as described in Section I. Additional details on application requirements, including a list of eligible costs, are provided in Chapter 6.

Certain work must be done by qualified personnel, and certain other work must be done by licensed professionals. An LEA receiving a grant must ensure that qualified personnel and licensed professionals, as defined in the glossary, perform their respective required work as set forth below.

## B. HVAC and Ventilation System Repairs, Upgrades, or Replacements

The repairs, upgrades, or replacements of systems eligible to be performed as part of a U&R Grant project must:

1. Correct a deficiency that is noted in an HVAC Assessment Report.
2. Be recommended by a licensed professional to meet minimum ventilation and filtration rate requirements or as cost-effective energy efficiency repairs, upgrades, or replacements.

As stated above, a site must have completed an A&M Grant project in the HVAC Assessment and Maintenance Pathway or Limited or No Mechanical Ventilation Pathway to be eligible for a U&R Grant. The A&M Grant project requirements for the HVAC Assessment and Maintenance Pathway or Limited or No Mechanical Ventilation Pathway are described in Chapter 2 and include an assessment and completion of an HVAC Assessment Report. Any deficiencies found during the A&M assessment must be documented in the HVAC Assessment Report, which is then reviewed by a licensed professional, as specified in Chapter 2.F, for recommendations on repairs, upgrades, or replacements necessary to correct the deficiencies and any cost-effective energy efficiency upgrades or repairs.

The HVAC Assessment Report completed for a site and licensed professional's recommendations must be submitted as described in Chapter 2.F, and reviewed and determined complete by CEC staff, for the recommended repairs, upgrades, or replacements to be eligible for U&R Grant funding.

As part of the U&R Grant application, which is described in Chapter 6, an LEA must indicate which HVAC and ventilation systems at the site will be repaired, upgraded, or replaced as part of the project. The LEA must also identify the deficiency noted in the HVAC Assessment Report that will be corrected and the licensed professional recommendation for the repair, upgrade, or replacement.

## C. Eligible Equipment

### 1. Electric Equipment

HVAC systems installed as part of a U&R Grant project must include equipment that meets one of the following, unless otherwise stated in the notice of funding availability issued by the CEC as described in Chapter 6.A.:

a. All electric equipment.
b. Electric equipment with a hybrid heating system.
    i. The LEA must submit a licensed professional recommendation for a hybrid heating system to justify the use of hybrid heating instead of an all-electric system.

The manufacturer and model number of the HVAC system that will be installed as part of the project must be provided in the application to confirm that the equipment is eligible. This requirement for all electric equipment, or electric equipment with a hybrid heating system, applies to replacements only. The repairs or upgrades to existing HVAC systems may be performed on gas equipment if the gas equipment was a part of the HVAC system in place prior to the start of the project.

### 2. Energy and Building Standards

All upgrade, repair, and replacement work performed as part of a U&R grant project must comply with Part 6 (commencing with Section 100.0) of Title 24 of the California Code of Regulations.

All appliances and equipment must be installed per manufacturer's instructions and applicable code requirements. Additionally, all equipment installed in a U&R grant project must be listed in the CEC's Modernized Appliance Efficiency Database System (MAEDbS) (https://cacertappliances.energy.ca.gov/Login.aspx), which contains publicly accessible lists of appliances that have been certified by the CEC.

## D. Mechanical Acceptance Testing

All U&R Grant project work must have an acceptance test performed as required in Section 120.5 of Part 6 of Title 24 of the California Code of Regulations. The acceptance test must be performed by an HVAC acceptance test technician certified by an Acceptance Test Technician Certification Provider (ATTCP) to complete the forms set forth in subparagraph (B) of paragraph (1) of subdivision (b) of Section 10-103.2 of Part 1 of Title 24 of the California Code of Regulations.

## E. Project Completion Report

Upon completion of all work funded by a U&R grant, the LEA shall prepare and submit a Project Completion Report for each site included in the grant. The Project Completion Report must include the following information in the required form or formats.

1. Name and address of school facility and person or contractor preparing and certifying report.
2. Description of repair, upgrade, replacement, and installation activities and outcomes.
3. Confirmation that the LEA has complied with all applicable program requirements, including Article 3 of Chapter 8.7 of Part 1 of Division 1, starting with Section 1620 of the PUC, and as described in these guidelines.
4. Verification that the LEA has acquired all applicable permits for the repair, upgrade, and replacement activities.
5. Verification that mechanical acceptance testing has been completed as required by Section D.
6. Verification that all workforce requirements have been met required and all construction work has been performed by a skilled and trained workforce as specified by the program guidelines, including the provision of the contractor's name and license, acceptance test technician name and certification number, and licensed professional's certification type and number, where applicable.

The Project Completion Report form will be made available for use in developing the report on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

LEAs may be required to submit additional information as described or otherwise required by these guidelines.

The LEA must maintain a copy of the Project Completion Report for at least three years from the grant award date and make it available to anyone upon request.

## F. Reimbursement of Work Already Performed

Under PUC Section 1621(c)(3), LEAs may submit grant applications for reimbursement of U&R Grant projects where the work was **contracted and performed** after August 1, 2020, and the project meets the requirements of PUC Sections 1622 to 1627, inclusive. Any projects seeking reimbursement must also meet all requirements as specified in these guidelines. Any grant applications for reimbursement of work contracted and performed after August 1, 2020, shall make clear which work is being requested to be paid on a reimbursement basis.

The LEA must also provide documentation or a certification that the work was **contracted and performed** after August 1, 2020 and provide a description of the documentation supporting this certification. CEC retains the right to request copies of all referenced documentation. PUC Section 1621(c)(3) requires both the work contract and performance to

occur after August 1, 2020. If the LEA contracted for the work **before** August 1, 2020, but the work was performed after August 1, 2020, it is not eligible for funding.

The applicant must provide the required documentation confirming that all grant work was done by qualified personnel, licensed professionals, and a skilled and trained workforce as required and defined in these guidelines.

## G. Proper Disposal/Recycling Requirements

Grant recipients shall dispose or recycle all HVAC system parts, units, or both replaced as part of a U&R Grant project in compliance with all state and local laws, regulations, ordinances, and other requirements. All replaced HVAC system parts and units are to be removed from service as part of this program and are not to be resold or reinstalled.

## H. Grant Budget

The budget for each grant award will be equal to the sum of approved individual site budgets for all eligible sites included in the grant application. Each site budget will be equal to the amount of the contractor estimate for eligible work to be completed at that site not to exceed the maximum award as specified in Section I. CEC staff will review the contractor estimate and determine the approved site budget based on program requirements, including eligible cost requirements in these guidelines and program statutes. A base cost award and design contingency funds, which are provided for HVAC system replacements only, will be added to the approved site budget, as described in Section I.

The design contingency funds must be designated by the LEA for use within the first 120 days of the project term. The LEA must provide notification to the CEC of the use or intended use of the design contingency funds in a progress report, as described in Chapter 7.B, to designate the funds for use. The portion of the funds not designated for use by this time will be released from the grant award reservation and will no longer be available to the LEA. Additional information is provided in Chapter 6.

Table 11 provides a description and calculation of the approved site budget of an example site for maximum award amounts. The calculation of an actual approved site budget will use the amounts requested in the application and verified by a contractor estimate not to exceed the maximum award amounts.

## I. Maximum Award

An LEA that completes the application process, as described in Chapter 6, may be awarded U&R grant funding up to one of the not-to-exceed award amounts, provided below, unless otherwise stated in the notice of funding availability issued by the CEC, as described in Chapter 6.A. The not-to-exceed award amount is based on the LEA's application tier. A description of the application tiers, which are based on LEA student enrollment, is provided in Chapter 1.C. The not-to-exceed award amounts are:

- Tier 1 – $2 million.
- Tier 2 – $4 million.

- Tier 3 – $6 million.

The not-to-exceed award is the maximum amount of funding that an LEA will be awarded, regardless of the number of applications an LEA submits, or number of sites included in the applications. The total amount available to be awarded to each LEA is contingent on sufficient funding being available in the applicable funding category and application tier when the required documents are received and approved, and the grant agreement is executed by the CEC.

Moreover, the approved site budget will not exceed the following maximum award amounts for each of the items specified, as follows, unless otherwise stated in the notice of funding availability issued by the CEC, as described in Chapter 6.A. The eligible costs for each of the items specified are provided in Chapter 6.E.

1. Direct construction costs: $5,000 per HVAC system tonnage for the approved repairs, upgrades, and replacements of systems at the site. The HVAC system tonnage amount used to calculate the maximum award for direct construction costs is the total tonnage of the all the systems at the site that will be repaired, upgraded, or replaced with grant funding. The tonnage of the current HVAC systems is used for repairs and upgrades, and the tonnage of the new HVAC systems is used for replacements.
2. Base costs: $20,000 per site for project management, application fees, and reporting.
3. Design contingency funds (HVAC systems replacement only):
    a. 50 percent of the direct construction costs calculated for HVAC system replacements by item 1, above, for electrical and structural modifications to the buildings at the site. The electrical and structural modifications must be necessary to perform the repairs, upgrades, or replacements approved as part of the U&R Grant project.
    b. 25 percent of the direct construction costs calculated for HVAC system replacements by item 1, above, for additional equipment or systems necessary to make the HVAC systems functional or more energy efficient including, but not limited to:
        i. Building management systems.
        ii. Economizers.
        iii. UVGI systems.
    c. 20 percent of the direct construction costs calculated for HVAC system replacements by item 1, above, for architectural and engineering design services by a licensed professional, as defined in the glossary.
    d. 5 percent of the direct construction costs calculated for HVAC system replacements by item 1, above, for DSA project approval.

**Table 11: Example of an Approved Site Budget U&R Grant Award Calculation**

*Calculation based on an example site: A school with 20 HVAC systems, 5 tons each, that will be replaced and 10 HVAC systems, 5 tons each, that will be repaired as part of the U&R Grant project.

| Calculation Description | Calculation Example |
|---|---|
| Direct Construction Costs (100 tons total for replacement and 50 tons total for repair) | $5,000 X 100 = $500,000 for replacement<br>$5,000 X 50 = $250,000 for repair |
| Base Costs | $20,000 |
| Design Contingency Funds | (0.50 + 0.25 + 0.20 + 0.05) x $500,000 = $500,000 |
| Approved Site Budget = approved budgets for:<br>• Direct Construction Costs<br>• Base Costs<br>• Design Contingency Funds | $500,000 + $250,000 + $20,000 + $500,000 = $1,270,000 |

Source: California Energy Commission

## J. Project Term

For each U&R Grant project, the LEA will have up to 24 months to complete work and submit the final reporting documentation, as described in Chapter 7, unless otherwise stated in the notice of funding availability issued by the CEC, as described in Chapter 6.A.

# CHAPTER 6:
# U&R Grants Applications and Awards

This chapter provides information for participation in the subsequent phase of program awards, which is for U&R Grants, including the:

- Application process.
- Required application forms and supporting documentation.
- Process used by the CEC to approve applications, grant awards, and pay the award funds.

A general description of the application and award process for both A&M and U&R Grants is provided in Chapter 1.F.

The CEC offers funding in the subsequent phase of program awards for projects for repair, upgrades, and replacements of HVAC or ventilation systems. The eligible repairs, upgrades, and replacements must be recommended by a licensed professional to correct deficiencies noted in an HVAC Assessment Report, as described in Chapter 2. The funding award amounts will be made based on a contractor's site-specific estimate for the eligible work not to exceed the maximum award.

## A. Notice of Funding Availability

The CEC will issue a notice of funding availability identifying the anticipated funding to be made available in each round of grants. The notice of funding availability will identify any relevant application dates, including the first and last date applications can be submitted and any funding restrictions applicable to that funding round. The notice of funding availability may also update the following provisions:

- Eligible equipment, as provided in Chapter 5.C.
- Maximum awards, as provided in Chapter 5.I.
- Project term, as provided in Chapter 5.J.
- Application limits, as provided in Chapter 6.B.

When issuing a notice of funding availability, CEC reserves the right to limit eligibility, or include a priority application period or other funding restrictions, to achieve the program's statutory or other goals. Dates, eligibility, and other details may be adjusted by the CEC through the issuance of a notice updating information.

## B. Application Limits

There are no restrictions on the number of applications that an LEA can submit for U&R Grant funds in each funding round or the number of sites an LEA can include in a single application unless otherwise specified in the notice of funding availability, as described in Section A. A site may be included more than once in separate applications in a funding round provided each

application is for the repair, upgrade, or replacements of different HVAC or ventilation systems at the site.

## C. Application Package

An LEA may apply for a U&R Grant for a site after an HVAC Assessment Report that is completed as part of an A&M Grant project at the site is submitted, as described in Chapter 2.F, and reviewed and determined complete by CEC staff. Eligible applicants must submit a complete application package for a U&R Grant using the electronic submission process and system identified in the notice of funding availability issued by the CEC.

The U&R Grant application will be associated to an approved A&M Grant application and may automatically populate some of the required information from the previously submitted application and HVAC Assessment Report. The application package must include the following in the required form or formats, and all forms will be made available for use in developing the application package on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

1. Applicant Details: LEA information including official name, address, responsible parties, contact information, description of LEA territory, sites to be addressed by the grant, and specific site information to determine the applicable grant pathway.
2. Grant Request Summary: Grant site and budget summary page and status of all site-specific work, including start date and projected end date.
3. Site-Specific Details: Detailed information identifying the number and type of HVAC or ventilation system units to be addressed by the grant; the type of repair, upgrade, or replacement to be performed on each unit; the number and description of parts or HVAC system units to be replaced at each site; site-specific estimate for materials; site-specific estimate for labor; and total site-specific estimate for site.
4. The LEA self-certifies:
    a. It will follow the program guidelines.
    b. The information included in the application package is true and correct to the best of the LEA's knowledge.
    c. It will obtain Division of the State Architect (DSA) project approval as applicable under California Code Regulations, Title 24.
    d. It acknowledges that the expended funds may be subject to audit, including a financial audit.
    e. It will comply with all reporting requirements.
    f. It will comply with all U&R Grant terms and conditions.
    g. It will dispose of or recycle all replaced HVAC system units and parts in compliance with its own policies or other applicable state and local requirements, including end-of-life management and recycling requirements.
    h. It will comply with all skilled and trained workforce requirements.

i. All applicable DIR and Labor Code requirements on public works, including the payment of prevailing wage, will be followed.

j. It acknowledges that it may be subject to a post-program site visit and measurement and evaluation study conducted by the CEC or its designee.

5. Supporting documentation:
   a. Site-specific contractor estimate supporting each site-specific amount requested. To be deemed complete, a contractor estimate must be itemized and include all required details.
   b. Required documentation for the use of a hybrid heating system, if applicable: Licensed professional recommendation for a hybrid heating system to be installed at the site instead of an electric heating system. The recommendation must include a description of the reason that an electric heating system is not feasible or practical at the site to justify the use of a hybrid heating system.
   c. Certificate of good standing for charter school applicants, if certificate provided with the A&M Grant application or charter has expired or is no longer current.
   d. Letter of authorization for third-party applicants, if not previously provided with the A&M Grant application.

## D. Contractor Estimates

The amount requested in the application package may only be for reasonable costs necessary to complete the work recommended by a licensed professional to correct the deficiencies noted the HVAC Assessment Report and the requirements of a U&R Grant project, as described in Chapter 5.

The contractor estimate must include a detailed site-specific budget, a timeline, and a clear and accurate description of the work that will be provided. The site-specific budget needs to show line-item cost estimates for materials, labor, and other costs. Any amount included as other costs must include a brief narrative explaining the use of these funds.

The LEA will be required to submit the original contractor estimate as part of the application package to demonstrate that all costs are reasonable for the work to be completed. The contractor estimate should include supporting documentation demonstrating that the scope of work is consistent with the requirements of these guidelines, as listed in Chapter 5.

Ineligible costs, as described in Section F, cannot be included as part of the contractor estimate. Additional information consistent with these guidelines may be required from applicants to complete the grant agreement after notification of the grant award. Additional costs not provided for in applicable program statute or these guidelines will not be approved as part of the grant award.

As noted, grants can be provided on a reimbursement basis for work **contracted for and completed** after August 1, 2020. The contractor estimate provided in support of a reimbursement grant must indicate that the estimate was completed after the August 1, 2020,

date. Projects that have completed an estimate prior to August 1, 2020, will still be eligible to apply for an award, but funding will only cover work that was contracted for and performed after that date.

The CEC does not have authority to authorize LEAs to use a particular procurement method for use of these funds. LEAs will have to rely on their own existing authority and shall comply with applicable law.

## E. Eligible Costs

U&R Grant award funding can be used for eligible direct and indirect costs of work performed in accordance with the terms of the grant agreement. Eligible direct construction costs up to the maximum award amount, as specified in Chapter 5.I.1, include, but are not limited to:

1. Materials and labor for the repair, upgrade, or replacement.
2. Ductwork repair, replacement, or installation.
3. HVAC system controls and thermostats.

Eligible base costs up to the maximum award amount, as specified in Chapter 5.I.2, include, but are not limited to:

1. Project management.
2. Grant application related work.
3. Final reporting.
4. Third-party consultant fees.

Eligible costs for the design contingency funds up to the maximum award amounts, as specified for each item in Chapter 5.I.3, include, but are not limited to:

1. Electrical, mechanical, and structural upgrades.
2. Engineering and design fees.
3. Additional repairs, upgrades, adjustments, or purchases and installations of equipment necessary to make the HVAC systems more functional or energy efficient, including, but not limited to, building automation systems, economizers, and UVGI systems.
4. DSA fees and other permitting fees.

## F. Ineligible Costs

U&R Grant award funding can be used only for work performed in accordance with the terms of the grant agreement and the eligible costs described in Section E, above.

Costs that are ineligible to be paid with grant funding include, but are not limited to:

1. Costs incurred outside the terms of the grant agreement with the CEC.
2. Purchase of equipment not an integral part of the project.
3. Portable equipment.
4. Replacement of existing funding sources for ongoing programs.

## G. Notice of Proposed Award and Completion of Grant Agreement

Following approval of an application, CEC staff will send a notice of proposed award to the successful LEA and request the following additional information to complete the grant agreement, consistent with these guidelines:

1. An authorizing document from the governing body, such as a resolution authorizing acceptance of the award and entering award agreement.
2. A signed grant agreement indicating that the LEA has read and accepts the terms and conditions.

Failure to agree to the terms and conditions by taking actions such as failing to sign the grant agreement or indicating that acceptance is based on modification of the terms will result in rejection of the application. The CEC reserves the right to modify the terms and conditions prior to executing the grant agreement.

At the time the grant agreement is fully executed and received by the CEC, the grant award funding will be reserved for the LEA. Grantees will receive an advance payment of 25 percent of the total grant award after notification of the funding reservation.

**The grantee must provide notification to the CEC of the use or intended use of the design contingency funds in a progress report, as described in Chapter 7.B, within the first 120 days of the project term. The design contingency funds, or a portion thereof, will be released from the award reservation and no longer available to the grantee if the grantee does not use or intend to use the funds by this time.**

For grants seeking reimbursement for projects contracted for and completed after August 1, 2020, the grantee will first need to enter into a grant agreement with the CEC and then provide the final required project reporting and invoicing documentation to receive payment of the full grant award. Additional information on project reporting and invoicing is provided in these guidelines. Instructions on how to report the project in CEC's system will be made available to grantees.

## H. Payment of Grant Funds

The CEC expects to receive funding for the program from participating utilities quarterly. Payment to grantees is conditioned on CEC receipt of funding.

The CEC will issue an email notice to approved grant applicants identifying the amount of the award. As noted above, the grantee will be awarded the CEC-approved amount requested, which must equal the total of each site-specific budget not to exceed the maximum award amounts, as specified in Chapter 5.I.

## I. Timing of Payment

After grant agreement execution, the CEC will reserve funds for the project and approve payment of advance funds equal to 25 percent of the overall award for all sites represented in the grant agreement to be issued by the SCO. SCO expects to be able to issue payments within four weeks once all required documentation is reviewed and approved by the CEC.

The grantee may request, and the CEC may approve payment of, reimbursement of the grantee's incurred costs up to 50 percent of the total grant award for all sites included in the grant agreement. A grantee may submit a request for reimbursement of costs incurred above the 25 percent advanced payment amount no more often than once every three months during the project term. The sum of the advanced payment and the reimbursement of incurred costs may not exceed 75 percent of the total grant award, which may be identified as the "initial payment" amount in Exhibit B of grant agreement. The remaining 25 percent of grant funds will be provided upon receipt and review of all final required documentation.

The grantee shall provide the CEC with proof of incurred costs, such as invoices, and a project progress report in the request for reimbursement of incurred costs, as specified in Section J.

As stated in Section G, the grantee must inform the CEC of the intent to use the design contingency funds prior to 120 days into the project term or the funds will be released from the grant award reservation. The notification of the intent to use the funds must be provided in the progress report described in Chapter 7.B.

A grantee will receive reimbursement for the costs incurred in the partial completion of the approved project work. If a grantee does not complete the entire project by the end of the project term, the payment for incurred costs will not need to be returned to the CEC. The CEC will only issue the final payment of the remaining 25 percent of grant funds for any incurred costs that were not already reimbursed.

## J. Reimbursement of Incurred Costs

Incurred costs eligible for reimbursement are costs for which the grantee has become legally obligated to pay and that comply with the terms of an executed grant agreement for a U&R Grant. Grantees will receive a notification after execution of the grant agreement with specific information on the process to request reimbursement of incurred costs.

Grantees are required to provide proof of incurred costs and a progress report, as described in Chapter 7.B, with each request for reimbursement. The proof of incurred costs documentation must demonstrate that the costs are eligible for reimbursement, as described in these guidelines; are consistent with the grant agreement and terms and conditions; and qualify as incurred costs. Documentation of incurred costs must provide site-specific information and be itemized to show both the material and labor costs for each eligible cost, as described in Section E, which has been incurred.

# CHAPTER 7:
# U&R Grants Project Completion and Reporting

## A. Completion of Projects

As noted, grant recipients will have 24 months to complete all U&R Grant work and final reporting requirements, unless otherwise noted in the notice of funding availability. Although the CEC may issue a reminder of the project deadline, it is the grant recipients' responsibility to monitor project completion and meet all required reporting and invoicing deadlines.

LEAs shall submit final reporting electronically using the system or process required by the CEC at the time the reporting is due. The CEC will provide all forms, formats, and guidance needed to assist in reporting on the CalSHAPE Program web page.

## B. Progress Reports

A progress report for each project must be submitted with any requests for reimbursement, to inform the CEC of the intent to use the design contingency funds, or upon request from CEC staff periodically throughout the project. In each progress report, grantees must provide:

- Project status.
- Expected completion date.
- Qualifications of the individuals selected to work on the project. This information is required to demonstrate that all work performed complies with the applicable skilled and trained workforce and other labor requirements.
- Documentation, if any, prepared by a licensed professional that provides additional design, detail, or specification information to the recommendations provided with the A&M Grant final reporting on the repairs, upgrades, or replacements that were approved to be performed as part of the project.
- Information on the intended use of the design contingency funds, including a detailed site-specific description and, if available, any estimates, quotes, contracts, or invoices that show the amount of funds the grantee intends to use or has incurred.

A progress report template will be made available to grantees for use and must be submitted in the required form or formats.

## C. Reporting

PUC Section 1618 states that the reduction in greenhouse gases (GHG) and energy savings attributed to a project funded by the CalSHAPE Program shall be attributed to the utility that provided those funds when determining compliance with applicable GHG or energy saving mandates. The baseline for determining reductions in emissions of greenhouse gases and energy savings from the program shall be the energy demand and emissions of GHG that would have occurred if ventilation and filtration recommendations for reopening schools were

met without the repairs, replacements, and efficiency upgrades funded under the CalSHAPE Ventilation Program.

Additionally, the CalSHAPE Ventilation Program, as part of California Climate Investments, must facilitate GHG emission reductions and further the purposes of AB 32 and related statutes. To meet this requirement, the CEC will use the GHG quantification methodologies (http://www.arb.ca.gov/cci-resources) and cobenefit assessment methodologies (http://www.arb.ca.gov/cci-cobenefits) applicable to CalSHAPE Ventilation Program projects that were developed by the California Air Resources Board (CARB) to quantify estimated GHG emission reductions and the related co-benefits.

Additional data or information may be requested from the grantee to allow the CEC to determine the GHG reductions and energy savings following PUC Section 1618 and the California Climate Investments requirements. The LEA, contractor, licensed professional, or a combination thereof shall cooperate with CEC staff or CEC consultants in any assessment of the energy and GHG savings of a project, including providing access to the project site and providing project and equipment information. The cost associated with any additional reporting or assessment will not be funded by a program grant.

## D. Final Reporting and Invoice for Remaining Funds

After the U&R Grant project has been completed, the grantee will submit a final document package to the CEC that includes:

1. The Project Completion Report as specified in Chapter 5.E.
2. Final invoice(s) and any other supporting documentation for all expended grant funds up to the original grant award amount for each site. The invoices must provide site-specific information and be itemized to show both the material and labor costs for the project work as described in the grant agreement.
3. Any reporting required to determine compliance with PUC Section 1618 or the California Climate Investments, as described in Section B above, to calculate or confirm energy savings or reduction in greenhouse gas emissions resulting from the project.
4. The LEA self-certifies:
    a. It followed the program guidelines.
    b. The information included in the final document package is true and correct to the best of the LEA's knowledge.
    c. All California Environmental Quality Act (CEQA) requirements are completed.
    d. It has obtained any required DSA project approvals as applicable under California Code Regulations, Title 24.
    e. It acknowledges that the expended funds may be subject to an audit, including a financial audit.
    f. It complied with all reporting requirements.
    g. It complied with all Assessment and Maintenance Grant terms and conditions.

h. It has disposed of or recycled all replaced HVAC system units and parts in compliance with its own policies or other applicable state and local requirements, including end-of-life management and recycling requirements.
i. It complied with all skilled and trained workforce and other labor requirements.
j. All DIR requirements for public works, including payment of prevailing wages, were followed.
k. It commits to participate with the CEC or its delegate in the assessment of energy savings or GHG emission reductions, including providing access to project sites and project and equipment information.
l. It acknowledges that it may be subject to a post program site visit and measurement and evaluation study conducted by the CEC or its delegate.

# CHAPTER 8: Administration

## A. Guidelines Authority

These program guidelines are adopted under Public Utilities Code Division 1, Part 1, Chapter 8.7 added by AB 841 (Ting, Chapter 372, Statutes of 2020), which directs the CEC to implement the CalSHAPE Ventilation Program as part of the CalSHAPE Program. Under PUC Section 1614(b), the Administrative Procedure Act (Chapter 3.5 [commencing with Section 11340] of Part 1 of Division 3 of Title 2 of the Government Code) does not apply to the adoption of these guidelines.

## B. Effective Date of Guidelines

These program guidelines are not effective until adopted by the CEC at a publicly noticed business meeting. Once effective, these guidelines will apply to all CalSHAPE Ventilation Program applicants, projects, and grantees. The CEC will post the adopted *CalSHAPE Ventilation Program Guidelines, Third Edition,* on its website: https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program. Applicants may also obtain the program guidelines by contacting CalSHAPE@energy.ca.gov.

## C. California Environmental Quality Act

The CEC must comply with CEQA (Public Resources Code section 21000 et seq.; see also California Code of Regulations Title 14, Section 15000 et seq.), which generally requires public agencies to identify and consider potential environmental impacts of proposed projects. Applicants may be required to submit CEQA documentation as part of their application to determine CEQA compliance. Refer to Appendix A: Application and Forms for further information.

## D. Division of the State Architect Review

The DSA provides design and construction oversight for school districts. To ensure buildings are safe and compliant with accessibility standards, the DSA must review and approve public school construction for compliance with the California Code of Regulations, Title 24, the California Building Code (CBC), when alterations or additions are made to existing buildings.

Certain equipment replacements and upgrades funded by the program might be exempt or excluded from DSA review and approval for structural safety, depending on the scope of work and estimated construction cost. To help LEAs determine the various requirements and possible exemptions, the DSA provides resources and guidelines on its website at https://www.dgs.ca.gov/DSA/Resources/Page-Content/Resources-List-Folder/Plan-Review-Appointment-Process-for-School-Essential-Services-Construction-Project.

In cases where DSA review is required, the DSA will verify that the original building construction was certified before it can issue approval of plans for alterations on that building. DSA regional office staff can help LEAs identify whether a particular building is suitably certified and what steps are required to achieve certification.

LEAs are advised to consider DSA requirements early in their planning for HVAC work and contact the appropriate DSA regional office with jurisdiction over the area in which the project is located.

Visit the DSA Construction Project Submittal web page for more information regarding plan submission at the Plan Review Appointment Process.

## E. Enforcement

In addition to any other rights the CEC has, the CEC can take all the following actions necessary to enforce its rights and program requirements:

### 1. Recovery of Overpayment

The CEC may direct its chief counsel to commence formal legal action against any applicant, former applicant, or recipient to recover any portion of a payment under a grant agreement that the executive director determines the applicant, former applicant, or recipient was not otherwise entitled to receive, retain (that is, advanced funds), or spend in the manner it was spent.

### 2. Fraud and Misrepresentation

The executive director may initiate an investigation of any applicant that the executive director has reason to believe may have misstated, falsified, or misrepresented information in submitting an application, payment request, or any reporting or other information required under the program. Based on the results of the investigation, the executive director may take any action deemed appropriate, including, but not limited to, cancellation of the reservation of funds, termination of the award or award agreement, recovery of any overpayment, and, with the concurrence of the CEC, recommending the attorney general initiate an investigation and prosecution under Government Code Section 12650, et seq., or other provisions of law.

### 3. Noncompliance With Agreement

The CEC may seek remedies for noncompliance with agreement terms, work scope, and project milestones. These remedies may include, are but not limited to, stop work, termination, withholding requested payments, recovery of funds, or any other administrative or civil action.

## F. Use and Disclosure of Information and Records and Confidentiality

With very few exceptions, documents submitted to the CEC or its technical consultant(s), including as part of any audit, are considered public records subject to disclosure under the

California Public Records Act. The CEC or other state agencies may also use any of these documents or information for any purpose, including to determine eligibility and compliance with the CalSHAPE Program, applicable law, or a particular solicitation or guideline document; evaluate related or relevant programs or program elements; or prepare reports. These documents and information include, but are not limited to, applications for funding, the agreement itself, invoices and any documentation submitted in support of applications, all agreement deliverables, final project report, documents prepared for other reporting requirements, and materials and documents developed as part of technology transfer.

If the CEC requires an applicant or recipient to provide copies of records that the recipient believes contain confidential/proprietary information entitled to an exemption under the California Public Records Act or protection under another law, the recipient may request that such records be designated confidential according to the CEC's regulations for confidential designation, Title 20, California Code of Regulations, Section 2505.

Applicants considering confidentiality should note that CalSHAPE funds are subject to information disclosure requirements to ensure transparency. Information concerning the identity of recipients and the grant amount is public information and will be disclosed according to the California Public Records Act. This information, as well as other public information, may also be disclosed through the CEC's website, another State of California agency website, or through other means.

The CEC can be required by law to disclose confidential information and records to other governmental entities and policing authorities for civil and criminal investigation and enforcement.

## G. Substantive Changes in Guidelines

After adoption, substantive changes to the adopted program guidelines may be made with the approval of the CEC at a publicly noticed meeting with no fewer than 15 days public notice. Unless stated otherwise in the resolution approving substantive changes, such changes shall take effect upon adoption by the CEC and shall apply to all CalSHAPE Ventilation Program applicants and applications, and existing grant agreements and projects. Substantive changes to design or requirements include but are not limited to:

1. Program eligibility.
2. Technical requirements.
3. Measurement and verification reporting.

## H. Nonsubstantive Changes in Guidelines

If the program guidelines require nonsubstantive changes, including, but not limited to typographical errors, the CEC will provide a notice of the changes to the CalSHAPE subscription topic (CalSHAPE Program) and post the amended guidelines on the program web page.

# GLOSSARY

| Term | Definition |
|---|---|
| AB | Assembly Bill |
| ASHRAE | American Society of Heating, Refrigerating and Air-Conditioning Engineers |
| A&M Grant | Assessment and Maintenance Grant. A grant provided as part of the initial phase of program awards. The grant provides funding to improve the energy efficiency and performance of school ventilation systems and support the safety of schools through one of three grant pathways: the HVAC Assessment and Maintenance Pathway, Scheduled for Replacement Pathway, or the Limited or No Mechanical Ventilation Pathway. |
| ATTCP | Acceptance Test Technician Certification Provider. The ATTCP Program was developed to support the California Building Energy Efficiency Standards. The requirements for ATTCPs can be found on the ATTCP web page: https://www.energy.ca.gov/programs-and-topics/programs/acceptance-test-technician-certification-provider-program. |
| CalSHAPE Plumbing Program | The CalSHAPE Plumbing Program administers the requirements of the School Noncompliant Plumbing Fixture and Appliance Program as specified in Article 4 of Chapter 8.7 (commencing with Section 1630) of Part 1 of Division 1 of the PUC. |
| CalSHAPE Program | California Schools Healthy Air, Plumbing, and Efficiency Program, which includes two grant programs: CalSHAPE Ventilation Program and CalSHAPE Plumbing Program. |
| CalSHAPE Ventilation Program | The CalSHAPE Ventilation Program administers the requirements of the School Reopening Ventilation and Energy Efficiency Verification and Repair Program as specified in Article 3 of Chapter 8.7 (commencing with Section 1620) of Part 1 of Division 1 of the PUC. |
| CalSHAPE Ventilation Program Guidelines | California Schools Healthy Air, Plumbing, and Efficiency Ventilation Program Guidelines |
| CARB | California Air Resources Board. CARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. CARB is the lead agency for climate change programs and oversees all air pollution control efforts in California to attain and maintain health-based air quality standards. |

| Term | Definition |
|---|---|
| CEC | California Energy Commission. The CEC is leading the state to a 100 percent clean energy future for all. As the state's primary energy policy and planning agency, the CEC plays a critical role in creating the energy system of the future — one that is clean, is modern, and ensures the fifth largest economy in the world continues to thrive. |
| CEQA | The California Environmental Quality Act, found in California Public Resources Code Section 21000 et seq., and the CEQA Guidelines, promulgated by the California Natural Resources Agency, California Code of Regulations, Title 14, Section 15000 et seq. CEQA generally requires state and local government agencies to identify and consider potential environmental impacts of proposed projects, and to reduce or avoid those impacts to the extent feasible. |
| Certified TAB Technician | A technician certified to perform testing, adjusting, and balancing of HVAC systems by the Associated Air Balance Council (AABC), the National Environmental Balancing Bureau (NEBB), or the Testing, Adjusting and Balancing Bureau (TABB). |
| Contractor | A person or company with the appropriate license classification, as determined by the Contractors State License Board. |
| CPUC | California Public Utilities Commission. The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. |
| DIR | California Department of Industrial Relations. The DIR protects and improves the health, safety, and economic well-being of over 18 million wage earners and helps their employers comply with state labor laws. DIR is housed within the Labor & Workforce Development Agency. |
| HVAC | Heating, ventilation, and air conditioning |
| HVAC Assessment and Maintenance Pathway | One of the three grant pathways for sites receiving an A&M Grant. This pathway requires an HVAC Assessment and Maintenance, completion of an HVAC Assessment Report, carbon dioxide monitor installation, and completion of an HVAC Verification Report, as described in Chapter 2. The grant pathway includes an additional 20 percent of the requested amount as a contingency fund for repairs, upgrades, or replacements necessary to make the system functional or more energy efficient. |

| Term | Definition |
|---|---|
| HVAC Assessment and Maintenance | An assessment of and adjustments to an HVAC system as described in Chapter 2.B. These include, as applicable, filtration, economizer dampers, ventilation, coil condition, and other requirements. |
| HVAC Assessment Report | A report prepared by a qualified testing personnel or qualified adjusting personnel as described in Chapter 2.F of these guidelines for review by a licensed professional. The HVAC Assessment Report must be submitted to the CEC as part of the final document package as specified in Chapter 4.C of these guidelines. |
| HVAC system | Any air-handling units, rooftop units, and unitary and single-zone equipment in the HVAC system or systems of a site, as described in PUC Section 1622. |
| HVAC system tonnage | The unit used to measure the amount of heat the air conditioner unit can remove from a home in one hour. A one-ton HVAC system can remove 12,000 British thermal units of air per hour. |
| HVAC Verification Report | A report prepared by an LEA upon completion of all work funded by an A&M Grant as described in Chapter 2.G of these guidelines. The HVAC Verification Report must be submitted to the CEC as part of the final document package as specified in Chapter 4.C of these guidelines. |
| Hybrid heating system | An electric heat pump with gas furnace supplemental heat that alternates between the two fuel sources. |
| Incurred costs | An eligible expense for which the grant recipient has become liable (legally obligated) to pay. |
| LEA | Local educational agency. A school district as defined in Section 41302.5 of the Education Code, a charter school that has been granted a charter pursuant to Part 26.8 (commencing with Section 47600) of Division 4 of Title 2 of the Education Code, or a regional occupational center established pursuant to Section 52301 of the Education Code that is operated by a joint powers authority and that has an active career technical education advisory committee pursuant to Section 8070 of the Education Code. |
| Licensed professional | A professional eligible under Division 3 (commencing with Section 5000) of the Business and Professions Code in the applicable classification to perform system design, construction, or installation of features, materials, components, or manufactured devices for mechanical systems. |

| Term | Definition |
|---|---|
| Limited or No Mechanical Ventilation Pathway | One of the three grant pathways for sites receiving an A&M Grant. This pathway requires a modified assessment, completion of a modified HVAC Assessment Report, installation of carbon dioxide monitors in each classroom, and completion of an HVAC Verification Report as described in Chapter 2. |
| MERV | Minimum efficiency reporting value |
| Near-zero emission building technology | Technology that reduces both of the following:<br>1. The energy demands of a building on the electrical or gas distribution system.<br>2. The direct and indirect emissions of greenhouse gases from buildings.<br><br>Near-zero-emission building technology includes a single technology, such as heat pumps, solar thermal systems, or advanced energy efficiency systems, and a combination of technologies, such as a solar photovoltaic system with an energy storage system as defined in PUC Section 921 (e). |
| Notice of proposed award | CEC notification to the LEA following approval of a grant application. |
| Notice of funding availability | A notice issued by the CEC to identify anticipated funding that will be made available in each round of CalSHAPE Program grants. The notice will provide relevant application dates and any funding restrictions applicable to that funding round. |
| PPM | Parts per million |
| Project | "Project" refers to all assessments, HVAC general maintenance, adjustments of ventilation rates, filter replacements, carbon dioxide monitor installations, repairs, upgrades, and replacements that are funded by an A&M Grant or U&R Grant at a site. |
| PUC | Public Utilities Code |
| Qualified adjusting personnel | Means either of the following:<br>(1) A certified TAB technician.<br>(2) A skilled and trained workforce under the supervision of a TAB technician. |
| Qualified testing personnel | Means either of the following:<br>(1) An HVAC acceptance test technician certified to complete the forms set forth in subparagraph (B) of paragraph (1) of subdivision |

| Term | Definition |
|---|---|
| | (b) of Section 10-103.2 of Part 1 of Title 24 of the California Code of Regulations by ATTCP that is approved by the CEC to provide that certification.<br><br>(2) A certified TAB technician. |
| Repair | To fix or restore components in an existing HVAC system. |
| Replacement | To replace an existing HVAC or ventilation system with a new HVAC system. |
| Scheduled for Replacement Pathway | One of the three grant pathways for sites receiving an A&M Grant. This pathway allows for filter replacement and requires the installation of carbon dioxide monitors, completion of a modified HVAC Assessment Report, and completion of an HVAC Verification Report as described in Chapter 2. |
| SEES Program | School Energy Efficiency Stimulus Program established in Chapter 8.7 Article 1 of the PUC. For program administration purposes, the SEES Program will be referred to as the CalSHAPE Program. |
| Service territory requirement | Sites must be located in a participating utility's service territory to receive a CalSHAPE Program grant. PUC Section 1615(c) requires the CEC to ensure that moneys from each utility are used for projects in the service territory of that utility from which the moneys are received. |
| Site | School where CalSHAPE Ventilation Program grant work will be performed. |
| Skilled and trained workforce | Has the same meaning as set forth in Section 2601 of the Public Contract Code. |
| TAB | Testing, adjusting, and balancing |
| Underserved community | A community that meets one of the following criteria:<br><br>(1) Is a "disadvantaged community" as defined by subdivision (g) of Section 75005 of the Public Resources Code.<br><br>(2) Is included within the definition of "low-income communities" as defined by paragraph (2) of subdivision (d) of Section 39713 of the Health and Safety Code.<br><br>(3) Is within an area identified as among the most disadvantaged 25 percent in the state according to the California Environmental Protection Agency and based on the most recent California Communities Environmental Health Screening Tool, also known as CalEnviroScreen. |

| Term | Definition |
|---|---|
| | (4) Is a community in which at least 75 percent of public school students in the project area are eligible to receive free or reduced-price meals under the National School Lunch Program.<br><br>(5) Is a community located on lands belonging to a federally recognized California Indian tribe. |
| Upgrade | To install new parts or components in an existing HVAC system. |
| U&R Grant | Upgrade and Repair Grant. A grant provided as part of the subsequent phase of program awards. The grant provides funding to improve the energy efficiency and performance of school ventilation systems and support the safety of schools with the repairs, upgrades, or replacements of HVAC or ventilation systems. |
| Utility or utilities | Means both of the following:<br><br>(1) An electrical corporation with 250,000 or more customer accounts within the state.<br><br>(2) A gas corporation with 400,000 or more customer accounts within the state.<br><br>This definition currently includes Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), and Southern California Gas Company (SCG). |
| UVGI | Ultraviolet germicidal irradiation is an established means of disinfection and can be used to prevent the spread of certain infectious diseases. Low-pressure mercury (Hg) discharge lamps are commonly used in UVGI applications and emit shortwave ultraviolet-C radiation. |
| Ventilation system | Mechanical and/or natural method of introducing outdoor air into an indoor space. |

# APPENDIX A:
# Application Information

This appendix describes the information that will be required in the application form. The application will be completed and submitted by the LEA using the electronic submission process and system identified in the notice of funding availability issued by the CEC. The application form will be made available for use in developing the application package on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program).

Refer to Chapter 3.B for more detailed information about the application process.

## Assessment and Maintenance Grant Application Form

1. Application Information
    - Applicant name
    - Type of entity/CDS Code
    - Application region
    - Address
    - Contact information
    - Utility provider(s)
2. Project Information (Table format for multiple projects in LEA's application)
    - Type of project (new or reimbursement)
    - School address
    - School size (classrooms/students)
    - Project description
3. Project Schedule
    - Estimated start date
    - Estimated completion date
4. Project Budget
5. CEQA-related information
6. Supporting Documentation
7. Self-Certifications

# APPENDIX B:
# HVAC Assessment Report Information

This appendix describes the information that will be required in the HVAC Assessment Report. The assessment report form will be completed by qualified testing personnel and submitted using the electronic submission process and system identified in the notice of funding availability issued by the CEC. The assessment report forms will be made available for use in on the program web page (https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program)

Refer to Chapter 2.D for more detailed information about the assessment report requirements.

1. **Overview Form (checklist)**
    - Unit/Model No./Serial No./SEER Rating/Refrigerant
    - Filtration
    - Ventilation rate
    - Ventilation system operation
    - Air distribution
    - Building pressure
    - General maintenance
    - Operational controls
    - $CO_2$ monitoring
    - HVAC Assessment Report
    - Energy and ventilation upgrades
2. **Filtration Form**
    - Existing filter data
    - Installation audit
    - Frame condition
    - Motor and control type
    - MERV 13 verification
3. **Ventilation Rate Form**
    - Determine minimum required outside air
    - Verify minimum required outside air
    - Increased outside air
4. **Economizer Operation Form**
    - Verify economizer operation

- Economizer functions as designed Y/N
- Documentation of adjustments and repairs required

5. **Demand-Control Ventilation Operation Form**
   - Verify DCV operation
   - Verify DCV function at setpoint of 800 ppm
   - Document adjustments or repairs required
6. **Air Distribution and Building Pressure Form**
   - Supply outlets measurement
   - Return inlets measurement
   - Exhaust inlets measurement
   - Measured supply air = measured outside air + measured return air determination
   - Measured supply air slightly great than measured return air determination
   - Air distribution notes
   - Document repairs and adjustments required
7. **General Maintenance Form**
   - Verify coil condition
   - Verify condensate drainage
   - Measure and document temperature differential
   - Verify condition of drive assembly
   - Document deficiencies
   - Document required repairs and adjustments
8. **Operational Controls Form**
   - Review control sequences – verify systems will maintain intended conditions during operation
   - Ventilation schedule operation
   - Document deficiencies and recommendations for maintenance, replacement, or upgrades.
9. **$CO_2$ Monitoring Form**
   - Verify installation or install a $CO_2$ monitor
   - Verify and document $CO_2$ monitor meets required capabilities
10. **Limited or No Existing Mechanical Form**
    - Verify existing HVAC infrastructure
    - Collect information on the building and potential locations for the installation of mechanical ventilation

# APPENDIX C:
# Table 120.1-A

Appendix for reference purposes only.

*Table 120.1-A – Minimum Ventilation Rates*

| Occupancy Category | Area Outdoor Air Rate1 Ra | Min Air Rate for DCV2 | Air Class | Notes |
|---|---|---|---|---|
| | | fm/ft2 | cfm/ft2 | |
| **Educational Facilities** | | | | |
| Daycare (through age 4) | 0.21 | 0.15 | 2 | |
| Daycare sickroom | 0.15 | 3 | | |
| Classrooms (ages 5-8) | 0.38 | 0.15 | 1 | |
| Classrooms (age 9-18) | 0.38 | 0.15 | 1 | |
| Lecture/postsecondary classroom | 0.38 | 0.15 | 1 | F |
| Lecture hall (fixed seats) | - | 0.15 | 1 | F |
| Art classroom | 0.15 | 2 | | |
| Science laboratories | 0.15 | 2 | | |
| University/college laboratories | 0.15 | 2 | | |
| Wood/metal shop | 0.15 | 2 | | |
| Computer lab | 0.15 | 1 | | |
| Media center | 0.15 | 1 | A | |
| Music/theater/dance | 1.07 | 0.15 | 1 | F |
| Multiuse assembly | 0.50 | 0.15 | 1 | F |
| **Food and Beverage Service** | | | | |

| | | | | |
|---|---|---|---|---|
| Restaurant dining rooms | 0.50 | 0.15 | 2 | |
| Cafeteria/fast-food dining | 0.50 | 0.15 | 2 | |
| Bars, cocktail lounges | 0.50 | 0.20 | 2 | |
| Kitchen (cooking) | 0.15 | 2 | | |
| **General** | | | | |
| Break rooms | 0.50 | 0.15 | 1 | F |
| Coffee Stations | 0.50 | 0.15 | 1 | F |
| Conference/meeting | 0.50 | 0.15 | 1 | F |
| Corridors | 0.15 | 1 | F | |
| Occupiable storage rooms for liquids or gels | 0.15 | 2 | B | |
| **Hotels, Motels, Resorts, Dormitories** | | | | |
| Bedroom/living room | 0.15 | 1 | F | |
| Barracks sleeping areas | 0.15 | 1 | F | |
| Laundry rooms, central | 0.15 | 2 | | |
| Laundry rooms within dwelling units | 0.15 | 1 | | |
| Lobbies/pre-function | 0.50 | 0.15 | 1 | F |
| Multipurpose assembly | 0.50 | 1 | F | |

# APPENDIX D:
# Additional References

Assembly Bill No. 841 Energy: transportation electrification: energy efficiency programs: School Energy Efficiency Stimulus Program. (2019-2020) (Ting)

http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200AB841