



School Facilities Board Guidance On Ventilation Projects Using ESSER 1 & 2 Funds

The Coronavirus Response and Relief Supplemental Appropriations Act, 2021 (CRRSA), was signed into law on December 27, 2020 and provides an additional \$54.3 billion for the Elementary and Secondary School Emergency Relief Fund (ESSER II Fund). This is the largest federal K-12 education relief program ever approved. Arizona will receive approximately \$1.1 billion in ESSER II funds which will be distributed through the Arizona Department of Education to qualifying school districts and charter schools. Applications will open in February 2021 with a date to be determined.

ESSER II funds may be used for school district air quality projects. Districts have inquired about differences between ESSER II and BRG grant resources for air quality and HVAC projects their districts may be considering. This February when the ESSER II grant application opens, it is worth knowing the differences in authorization, uses of funds, and project terms.

ESSER II funds allow school districts to improve air quality. ESSER II funds have flexible uses for overall air quality improvement uses including HVAC projects, increased ventilation, increased or improved filtering and disinfection. For example, ESSER II HVAC projects can be used for replacing individual units, replacing entire HVAC systems, improving filtering systems, and for replacing windows as part of improving ventilation if it supports district COVID Response plans.

SFB Building Renewal Grant funding for HVAC projects requires a documented R7-6-213 Classroom Temperature [Minimum Adequacy Guideline](#) (MAG) deficiency exists for classroom temperatures outside acceptable ranges. Replacement of HVAC must also meet [SFB HVAC Policy guidelines](#). HVAC project assessment may require a repair versus replacement analysis, an assessment report, or a technical diagnostic report based on the scope of the project.

You are encouraged to research, leverage, and maximize SFB and ESSER II funding for HVAC and overall air quality needs in the manner best suited to your district needs. For your reference, please see the comparison of the funding sources and the uses below:

| | Building Renewal Grant (BRG) | ESSER II (CRSSA) |
|---------------|------------------------------|-----------------------|
| Authorization | State Funds A.R.S. | Federal Funds (CRSSA) |

| | | |
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| | Title 15, Chapter 16. These begin at A.R.S. §15-2001 through A.R.S. §15-2132 . | Section 313 of the Coronavirus Response and Relief Supplemental Appropriations (CRRSA) Act, 2021 ESSER II |
| Funding 2021 | \$120 Million | \$1.1 Billion |
| Uses of Funds | Building Renewal projects based on Minimum Adequacy Guidelines and correcting deficiencies by awarding eligible projects in assessment, design, or construction. | Addressing learning loss, preparing schools for reopening, and testing, repairing, and upgrading projects to improve air quality in school buildings |
| Application | Monthly SFB E-Civis | ADE February 2021 GME |
| Approval | Arizona School Facilities Board (SFB) | Arizona Department of Education (ADE) |
| Project terms | One year from date of Award | March 13, 2020 - September 30, 2022. |

When to use BRG .vs ESSER I & II funding

- Use BRG funding to correct Classroom Temperature or Classroom Air Quality deficiencies.
- Eligibility for BRG funding requires the space be used for education/academic purposes and generate student capacity (according to the SFB Building Inventory database). District Administration space is not eligible for BRG funding.
- Use ESSER I & II monies for any other repair/replacement/renovation/upgrade to existing ventilation systems.
- ESSER I now provides funding for ventilation repair/replacement/renovation/upgrade.

Sample method to test CO2 PPM and temperature/humidity

- ❖ To test CO2 levels/temperature/humidity, a simple hand-held tool can be used
[Example](#)
 - ❖ Step 1: Take an outdoor ambient reading
 - ❖ Step 2: Take an indoor reading with students in the classroom
 - ❖ Step 3: Add 800 to the ambient reading and compare sum to indoor reading
 - ❖ Step 4: If sum is greater than indoor reading, the CO2 levels in the classroom exceed the Minimum Adequacy Guideline and more fresh air intake is needed
- ❖ Per A.A.C. R7-6-215. Classroom Air Quality

The CO2 level in each general and specialty classroom shall not exceed 800 PPM above the ambient CO2 level.

❖ Per A.A.C. R7-6-213. Classroom Temperature

A. A school facility shall have an HVAC system capable of maintaining a temperature between 68° and 82° F under normal conditions with an occupied classroom.

B. Except in areas where the elevation is above 5,000 feet, defective or non-operable air conditioners and evaporative coolers shall be replaced with air conditioning. Non-air conditioned schools with elevations less than 5,000 feet shall be air-conditioned.

Best practices to include/consider when replacing HVAC units:

- Procure only contractors registered with the State of Arizona Registrar of Contractors that are insured and bonded
- Follow ASHRAE and IECC requirements [A.R.S. §34-451](#)
- Include duct liners that prohibit microbial growth [ASHRAE 62.1 §5.4](#)
- Follow EPA requirements for capturing/handling refrigerant [EPA](#)
- Utilize manufacturer-certified technical diagnostics to assess mechanical systems; do not accept assessments from sales representatives. [SFB HVAC Policy](#)
- Include all necessary disciplines in the project scope of work (mechanical/electrical/plumbing/structural)
- Utilize minimum 14 SEER R 410A (11.9 EER, if 3-phase) units
- Consider winter snow load and the height of mechanical equipment stands [NRCA](#)
- Include structural analysis for replacement of rooftop units [A.R.S. §15-342.01](#)
- Consider including hail guards and modulation economizer with CO2 outside air control for new units
- HVAC in MDF or IDF rooms should be cooling only