

FIVE GUIDING PRINCIPLES

How Schools Can Use American Rescue Plan Funding to Ensure Healthy, Resilient Facilities for Students and Reduce Energy Costs and Emissions



TABLE OF CONTENTS

Overview.....	1
Guiding Principles for Facilities Decisions.....	1
1. Investing in School Infrastructure is Central to Addressing Equity	
2. Healthy Schools Advance Student Learning and Success	
3. Efficient, Resilient Operations Save Money Today and Tomorrow	
4. Navigating a Changing World Requires Data and Planning	
5. A Shifting Economy and Climate Require New Ways of Teaching	
Planning Considerations.....	2
Transparency	
Connecting Air Quality with Energy and Emissions	
Leveraging Financial Resources	
Monitoring and Training	
Linking to Curriculum	
Examples of Qualified Spending	3
Appendix A: Allowable Use of Funds in the American Rescue Plan Act.....	4
Appendix B: Funding Available for K-12 Schools and Timeline for Expenditure.....	4
Appendix C: Guidance Documents to Support Climate-forward and Healthy School Buildings.....	5
Appendix D: Additional Resources to Support Action on the Guiding Principles.....	6

Published March 2021

Cover photo: © VasyI – stock.adobe.com

Center for Green Schools at the U.S. Green Building Council | centerforgreenschools.org

Undaunted K12 | undauntedk12.org

OVERVIEW

Within the last four months, the Federal government has approved \$176 billion in emergency COVID relief aid for K-12 schools, including \$54 billion in Coronavirus Response and Relief Supplemental Appropriations Act (December Relief Act) and \$122 billion in the American Rescue Plan Act. With the inclusion of facilities-related expenses as an allowable use of funds, this relief represents an enormous opportunity to address and support student needs during the ongoing pandemic, address persistent inequities, and to build back better.

The one-time nature of these funds makes them an excellent fit for durable investments in facilities that will yield benefits for years to come.

Education leaders have significant flexibility on how to spend funds. The Department of Education sent out general information to Chief State School Officers (including a [letter](#) and [fact sheet](#)) on March 17th, 2021, and the Congressional Research Service has provided information on the [per-state allocation](#). The American Rescue Plan Act details 18 different uses of funds, including a broad range of school facility repairs and improvements (see Appendix A for excerpts of Bill text and Appendix B for timeline for expenditure). It is notable that the December Relief Act and the American Rescue Plan Act both include language that explicitly allows for certain forms of school infrastructure spending.

The guiding principles, examples, and resources presented in this document provide education leaders, including superintendents, school board members, school business officers, and school facilities directors, with both a framework and concrete ideas for how to use Federal funds to maximize opportunities for student and teacher health, equity, and climate resilience.

GUIDING PRINCIPLES FOR FACILITIES DECISIONS

While all schools must navigate their own particular set of circumstances, these principles are universal in their application to large and small districts, rural and urban schools, primary and secondary schools.

1. Investing in School Infrastructure is Central to Addressing Equity

Given that school infrastructure relies heavily on local property taxes, our school buildings reflect the vast inequalities that exist in household wealth. Schools in high-poverty communities are [more likely to have conditions](#) that are unsafe and unfit for learning. Improving these physical environments may improve the health of students who are most at risk for disease, reduce teacher turn-over in communities that struggle to recruit qualified teachers and inspire improved attendance at schools with lower graduation rates. **For school districts focused on equity, safety, and health, modern facilities are arguably one of the areas most deserving of significant investment of COVID relief funds.**

2. Healthy Schools Advance Student Learning and Success

[Decades of research](#) show the direct linkages between our children's health and performance and their physical environment. And yet, many of our school buildings do not meet the bare minimum of being warm, safe, and dry. Investments that create schools that are accessible, comfortable, well-lit, well-ventilated, and equipped with 21st century technology are foundational to learning and student success. **The COVID relief funds provide an opportunity for schools to make durable, long-lasting improvements in facilities, which will affect the health and learning of current and future students.**

3. Efficient, Resilient Operations Save Money Today and Tomorrow

Most schools can achieve significant [reductions in energy usage](#), generating savings that can be used to fund more district services, instructional resources, and learning. While some savings can be achieved through no-cost actions, significant reductions are often achieved through investments to repair, replace or upgrade old equipment and structures. Investing in measures to harden our school infrastructure is likely to reduce future spending on repairs necessitated by extreme weather events. **By using COVID relief funds to invest in energy efficiency and resilience, schools can turn a one-time investment of federal funds into a stream of ongoing budget savings.**

4. Navigating a Changing World Requires Data and Planning

While the past year has been extraordinary in its challenges, advancing our school facilities to be more pandemic- and climate-resilient will be work that accelerates in the coming years. School systems have a key role to play in national efforts to reduce greenhouse gas emissions. Navigating these seismic changes and evolving expectations will require robust data collection and planning efforts. **Schools that use COVID resources to invest in gathering insight and engaging in robust planning exercises will be both better positioned to attract additional resources and to navigate future challenges.**

5. A Shifting Economy and Climate Require New Ways of Teaching

Young people today will pursue jobs, hold decision-making authority, and start families during the next three decades, when the world is expected to experience the continued intensification of climate change impacts. The preparation they receive today will arm them with the knowledge and skills to navigate these impacts and contribute to solutions with massive implications for the competitiveness of the U.S. workforce and economy. **As school leaders address learning loss, COVID relief funds offer an opportunity to invest in training and supports to deliver a curriculum that prepares students to thrive in a changing climate.**

PLANNING CONSIDERATIONS

Local Education Agencies planning to use American Rescue Plan Act and December Relief Act funds for facilities projects should keep the following general considerations in mind while determining their plan of action.

Transparency

Transparent decision-making about the allocation of project funding will be essential to driving positive and equitable results for the local community. Guidance related to equitable facilities master planning can be repurposed as a helpful resource as the school system vets its plan for federal funding. See the Master Plan Evaluation Guide from the 21st Century School Fund as an example.

Connecting Air Quality with Energy and Emissions

The focus of the facilities funding included in the American Rescue Plan Act and the December Relief Act is on protecting student and teacher health from both the virus and from other environmental hazards. Healthy environment considerations can go hand-in-hand with energy efficiency, and projects that are implemented to protect health have the potential—if well-planned with energy efficiency in mind—to save the school system money of the long-run.

What's more, twenty-four states and the District of Columbia, as well as some local jurisdictions, have established economy-wide greenhouse gas emissions targets. Schools can make an important contribution to state emissions targets. Contact your State Energy Office to learn more about your state's clean energy and climate plans and find expertise on the connection between air quality measures and energy efficiency upgrades.

Leveraging Financial Resources

Schools should think strategically about directing relief funds to activities (e.g. data collection, planning, tackling deferred maintenance projects) that will prepare the school to take advantage of future opportunities to finance energy efficiency and renewable energy technology. For instance, energy efficiency measures that have quick financial payback, such as installing LED lighting and building controls, can be bundled with other measures that have longer payback periods and financed through Energy Savings Performance Contracts; and these contracts will be most successful as a planned part of scheduled capital improvements and repairs.

When considering facilities investments, perform a life-cycle cost analysis (not just first-cost) to understand the full financial impact of various options. Of course, financial cost is only one consideration in deciding appropriate improvements for a school building. Schools may choose higher-cost options to achieve benefits such as improved indoor air quality and lower carbon emissions.

Watch for opportunities that arise to phase out inefficient, outdated, and/or polluting equipment, such as fossil-fuel based heating systems or natural gas-fueled kitchen appliances. Replacing equipment to improve indoor air quality can open up opportunities to purchase efficient, ENERGY STAR certified appliances. Also watch for opportunities to implement low-

cost or no-cost energy efficiency measures that might be performed at the same time as other planned improvements, such as adjusting control setpoints for energy savings when testing and balancing new equipment.

Monitoring and Training

Facilities improvements that are intended to improve environmental health or to save energy and water should be monitored and confirmed to ensure that they are yielding the intended benefits and that corrections can be made, if needed. For instance, air quality measures implemented to increase ventilation should be monitored with CO2 monitors, measures to improve drinking water quality should be monitored with periodic testing, and measures to improve energy efficiency should use Energy Use Intensity (EUI) or a no-cost benchmark (such as an ENERGY STAR score or an Arc score) to compare energy use data with comparable periods in past years and with similar buildings in the region.

Planning and implementing facilities improvements are only the first steps. To be successful, ongoing and effective staff training is needed to ensure that maintenance and custodial staff are well-prepared to support any new technology or new procedures.

Linking to Curriculum

School buildings themselves can serve as rich opportunities to engage students in real-world learning. For example, collecting and tracking building performance data teaches cause and effect, as well as action competence. On-site installation of solar energy systems can serve as the foundation for learning about clean energy technology. Educators don't have to start from scratch. There are many materials available, such as those collected by the Center for Green Schools in its Learning Lab platform and those provided by organizations like National Energy Education Development (NEED).

EXAMPLES OF QUALIFIED SPENDING

Letters in parentheses indicate relevant item in use of funds appearing in Section 2001. Elementary and Secondary School Emergency Relief Fund. Sec (e)(2) of the American Rescue Plan Act. See Appendix A for bill language. Schools should consult with their state education department and U.S. Department of Education for confirmation and further guidance.

- Professional development for teachers to develop their competency in teaching climate literacy (A)
- Developing new programming to advance climate literacy and infusing that content into all areas of instruction, including not only STEM but also social sciences (A)
- Facility upgrades to comply with American Disabilities Act requirements (B)
- Developing a school resilience plan to improve preparedness and plan for future long-term closures (G / J)
- Training for facilities staff on proper maintenance of HVAC equipment (H)
- Purchase of supplies to sanitize and clean the facilities that are free from dangerous chemicals, such as those with EPA's Safer Choice label (I)
- Envelope upgrades to improve daylighting, which impacts student health and wellbeing (O)
- Upgrades to high-performance HVAC systems that eliminate the onsite burning of fossil fuels and its associated indoor air contamination (O / P)
- Remediation of mold, lead, and other sources of poor indoor air quality (O / P)
- Installation of mechanical ventilation and/or advanced filtration systems (O / P)
- Replacement of windows to allow for improved intake of fresh air (O / P)
- Replacing natural gas-fueled kitchen appliances to improve indoor air quality (O / P)
- Replacement of furnishings or materials that are contributing to poor indoor air quality (O / P)
- District-wide facilities conditions assessments and associated planning related to building envelope and mechanical systems, which impact health (P / Q)
- Elimination of common toxins (PFAS, antimicrobials, and flame-retardants) from procurement lists (Q)
- Installation of on-site solar or wind systems for power generation, where adding such equipment enables the school to remain open and provide services despite frequent or prolonged power outages of the main grid (R)

APPENDIX A

Allowable Uses of Funds in the American Rescue Plan Act

The American Rescue Plan Act, Section 2001. Elementary and Secondary School Emergency Relief Fund. Sec (e)(2) Uses of Funds includes the following:

- (A) Any activity authorized by the Elementary and Secondary Education Act of 1965.
- (B) Any activity authorized by the Individuals with Disabilities Education Act.
- (D) Any activity authorized by the Carl D. Perkins Career and Technical Education Act of 2006.
- (G) Developing and implementing procedures and systems to improve the preparedness and response efforts of local educational agencies
- (H) Training and professional development for staff of the local educational agency on sanitation and minimizing the spread of infectious diseases.
- (I) Purchasing supplies to sanitize and clean the facilities of a local educational agency, including buildings operated by such agency.
- (J) Planning for, coordinating, and implementing activities during long-term closures, including providing meals to eligible students, providing technology for online learning to all students, providing guidance for carrying out requirements under the Individuals with Disabilities Education Act and ensuring other educational services can continue to be provided consistent with all Federal, State, and local requirements.
- (O) School facility repairs and improvements to enable operation of schools to reduce risk of virus transmission and exposure to environmental health hazards, and to support student health needs.
- (P) Inspection, testing, maintenance, repair, replacement, and upgrade projects to improve the indoor air quality in school facilities, including mechanical and non-mechanical heating, ventilation, and air conditioning systems, filtering, purification and other air cleaning, fans, control systems, and window and door repair and replacement.
- (Q) Developing strategies and implementing public health protocols including, to the greatest extent practicable, policies in line with guidance from the Centers for Disease Control and Prevention for the reopening and operation of school facilities to effectively maintain the health and safety of students, educators, and other staff.
- (R) Other activities that are necessary to maintain the operation of and continuity of services in local educational agencies and continuing to employ existing staff of the local educational agency.

APPENDIX B

Funding Available and Timeline for Expenditure

Bill	Passed	TOTAL Appropriation	PK-12 Public Education Allocation	% Funds to LEAs	Must spend by
CARES Act	March 27, 2020	\$2.2 Trillion	\$13.5 Billion	90%	December 30, 2021
December Relief Act	December 27, 2020	\$900 Million	\$54.3 Billion	90%	September 30, 2022*
American Rescue Plan Act	March 11, 2021	\$1.9 Trillion	\$122.0 Billion	87.5%	September 30, 2023*

* The Tydings Amendment allows for one additional year for expenditure.

APPENDIX C

Additional Guidance Documents to Support Climate-forward and Healthy School Buildings

In addition to resources linked in the body of this document, further long-standing guidance is available to assist Local Education Agencies in using the American Rescue Plan Act and the December Relief Act funding for facilities. The guidance below has been used by thousands of schools across the U.S. to make facilities planning and design decisions that protect student and teacher health.

- **U.S. Environmental Protection Agency (EPA):** Decades of work to educate school stakeholders about environmental health has yielded useful guidance for facilities improvements like those allowed with the America Rescue Plan Act and December Relief Act funding. Beyond the Energy Savings Plus Health Guide reference above, EPA also has the [Tools for Schools](#) program for indoor air quality and guidance for testing and taking action on lead in school drinking water, called the [3T's Toolkit](#). Please note that CDC has also published important guidance for building water systems related to [preventing Legionnaire's Disease](#) and other water-borne illnesses upon reopening.
- **U.S. Green Building Council (USGBC):** USGBC's LEED Rating System is the world's most-used green building rating system, covering both building design and construction as well as operations and maintenance, and it has an adaptation specifically for schools. Almost 2,500 schools have been third-party certified using the system. It is developed by subject matter experts from the building industry who volunteer their time to create guidance, and the rating system is voted on by USGBC Members, representing 9,000 companies and organizations. Find out more about [certification](#) or about [LEED credits](#)—the building blocks of certification—which can guide improvements and renovations that might not be large enough in scope to qualify for certification. In particular, the [LEED Safety First pilot credits](#) provide recommendations for actions needed to protect occupants returning to buildings during or after the pandemic.
- **ASHRAE:** The American Society of Heating, Refrigeration, and Air-Conditioning Engineers, with roots back to the late 1800s, publishes periodically updated guidance about energy audits, ventilation, building commissioning, maintenance of equipment, and more. In 2020, they quickly established an Epidemic Task Force that included a group working on schools, which [published recommendations](#) for COVID-19 mitigation measures.
- **Harvard T.H. Chan School of Public Health:** In 2020, Harvard pulled together research-backed [guidance for schools](#) to help them make decisions about how to keep students and teachers healthy during the pandemic. The guidance includes links to other resources and research that can inform decisions, as well as calculators and tools to make the research actionable.

APPENDIX D

Additional Resources to Support Action on the Guiding Principles

- **National COVID-19 Outdoor Learning Initiative:** Led by Green Schoolyards America, hundreds of volunteers at organizations and school districts around the country collected resources into an [online library](#) to help schools move learning outdoors, where risk of COVID-19 transmission is lower.
- **State Energy Programs:** Each state has [technical expertise in state-level government](#) that can direct schools to local resources and, in some cases, offer technical assistance. These officials have expertise in energy systems, which generally have direct interaction with indoor environmental health concerns, so they are valuable resources for facilities decisions.
- **U.S. Department of Energy:** Ideas for financing energy improvements or leveraging energy-related financing to make facilities dollars go further can be found at the Department's [Better Buildings Solution Center](#) (sorted here for K-12 schools). Solutions like utility incentives and public private partnerships are also detailed in the site's [Financing Navigator](#). The Zero Energy Schools Accelerator has published several straightforward and easy-to-use guides for moving schools toward net zero energy, including [Achieving Zero Energy: Advanced Energy Design Guide for K-12 School Buildings](#) and [Plowing through the Cost Barrier: Zero Energy K12 Schools for Less](#).
- **New Buildings Institute:** A non-profit pushing for zero energy and zero carbon buildings, NBI has put out training and resources for K-12 schools, including a [Zero Energy Schools Stakeholder Engagement and Messaging toolkit](#) and [Zero Energy Integrated Design Charrette Toolkit for Schools](#).
- **Generation 180:** The K-12 schools program at this organization released a [How-to Guide for Schools Going Solar](#), which walks decision-makers and community stakeholders how they can assess and plan for solar installations at schools.
- **ED-Green Ribbon Schools in your state:** The U.S. Department of Education gives [awards to schools and districts](#) that have made progress on environmental impact, health impact, and sustainability literacy each year. Participating states nominate potential awardees to the Department for recognition. If your state participates, award-winning schools may be able to provide local perspective and lessons learned for planned facilities upgrades.
- **USGBC directory of professionals:** The U.S. Green Building Council has a network of hundreds of thousands of professionals around the country who are green building professionals and may be available to provide services. At the organization's website, there is a [directory](#) that is searchable by location and credential type. Those with a LEED Accredited Professional (LEED AP) credential are knowledgeable about advising clients on green strategies for their buildings.
- **Center for Green Schools:** A [global leader in advancing green schools](#) and providing school districts and education leaders with what they need to create sustainable, healthy, resilient, and equitable learning environments. The organization provides professional networks, educational resources, and industry-recognized tools to bring sustainability to life in the classroom and encourage communities to work together toward a future that is healthier for people and the planet.