



Bipartisan Infrastructure Law Opportunities for School Building Energy Efficiency

Students spend more than 15,000 hours in school buildings throughout their educational careers and are adversely affected by poor building conditions. Designing and building schools to a higher standard and paying special attention to energy-consuming systems, supports better health and learning while also lowering utility bills. Adequate funding to address aging school buildings across the country is necessary. The [Bipartisan Infrastructure Law](#), signed in November 2021, allocates funding to over 350 programs across many areas of infrastructure, including investments for the country's public school buildings.

There are two primary grants focused on school building energy efficiency:

1. Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities, from the U.S. Department of Energy; and
2. Secure Rural Schools from the Department of Agriculture.

This resource outlines the two aforementioned grants and offers suggestions for strategies to incorporate funding into high performance school building improvement projects. Finally, it outlines other BIL grants, such as the Energy Efficiency and Conservation Block Grant, which could also be leveraged for school building energy efficiency projects.

The federal agencies administering these grants will provide guidance on eligible uses for funding, likely in the fall or winter of 2022. Amounts listed are the total allocations from BIL.

Schools Grants

Grants for Energy Efficiency and Renewable Energy Improvements at Public School Facilities

U.S. Department of Energy, \$500,000,000

- Recipients: Consortia of one Local Education Agency (LEA) and one or more schools, nonprofits, for-profits, and community partners
- Eligible Uses: energy efficiency, ventilation, renewable energy, alternative vehicles, and alternative fuel vehicle infrastructure improvements
- Competitive grants (eligible entities, as outlined in the Request for Proposals, may submit applications for funding)

Secure Rural Schools

U.S. Department of Agriculture, \$585,000,000

- Available to 41 states for distribution to 742 eligible counties
- Provides funding for schools, roads, and other municipal services in more than 700 counties across the U.S. and Puerto Rico



- Formula funding (funding is distributed based on allocations set by the administering agency, after requirements outlined in the Request for Proposals are met)

Energy Efficiency Project Strategies

These strategies are part of a comprehensive approach to school building efficiency and decarbonization. Many or all can be incorporated into planning for and implementing building improvements, and federal funds can be used to assist.

Building Capacity Across a School District

- Training building operators is critically important to enhancing the energy performance of school facilities and maximizing energy efficient capital improvements. Building systems and operations are becoming increasingly complex and require a highly skilled and qualified workforce, so training is necessary for proper operations and maintenance. Training programs such as the [Building Operators Certification](#) (BOC) are valuable opportunities to maximize operational efficiencies in schools. Whether investing in new equipment, undertaking major retrofit projects, building new schools, or simply maintaining existing facilities, school districts should prioritize ongoing operations and maintenance to maximize health and efficiency.
- NEEP's [Regional Operations & Maintenance Guide](#) provides best practices, checklists, and examples for schools
- Educating students, teachers, and other staff members about energy efficiency and the role they can play in building operations helps ensure that everyone using the building has the same goals. One program offered by Energize CT, [eesmarts](#), helps educators teach their students about the importance of energy efficiency and renewable energy. Another example is [VEEP](#), or the Vermont Energy Education Program, which serves school communities throughout Vermont and New Hampshire. School districts should develop occupant engagement strategies utilizing some of the existing best practices from these types of programs.

Peer-to-Peer Collaboration

- Participate in or create peer-exchange networks to help with applications, long-term operations and maintenance, and other goals covered with this funding. School districts can pool resources and share ideas, learning from each other. While this action is not necessarily something federal funds should be spent on, it is a way to facilitate planning, spending, and idea sharing among districts.
- Seek guidance and partnership with the state, other districts, regional energy and education organizations, utilities, etc. These partners could add various resources and perspectives to assist in coordination, leveraging existing resources and programs, and implementation of projects. States and utilities that already have complementary incentives or grant programs can help advise districts as they plan how to spend new money.

Facilities Needs Assessments

- Assessing the current conditions of facilities across a school district should be one of the first actions taken. [Needs assessments](#) should include information such as utility bill data, age and type of energy systems, and information about procedures for O&M, amongst other pertinent building-related



information. Where possible, schools should conduct both operational and asset-based assessments to evaluate occupant behavior and energy systems. Communities can work together to hire outside vendors to conduct needs assessments, or work with other organizations to understand assessment tools that already exist and/or create needs assessments surveys and templates that can be shared widely. Communities and states can also work together on this topic to standardize and streamline the needs assessment process.

Long-Term Capital Planning

- Long-term management and capital spending plans for facilities help ensure that investments and operations are aligned with the district's goals and priorities. These plans should incorporate information from facilities needs assessments and can range from basic documents that districts put together in house, to more rigorous plans where an outside consultant is hired to conduct building walkthroughs and provide recommendations. At a minimum, a long-term capital plan should include information related to the current status of building systems (e.g. HVAC, hot water heaters, etc.), the life expectancy of these systems, expected costs of replacing systems, and potential project timelines. These plans should be updated on an annual basis and can guide the use of funds from a school's capital budget. This [training video on Capital Improvement Plans](#) for public school facilities and the National Council for Public School Facilities' [list of example Capital Plans](#) are two helpful resources.

Creating High Performance Standards for New Buildings and Renovations

- Creating high performance standards for new buildings and major renovations, plus emergency capital replacements, ensures that efficiency, indoor air quality, and any other priorities will be considered and incorporated. A good example of this is the first draft of the [Maryland Climate Solutions Act of 2022](#). [Though it did not make the final version, the draft act sought to have](#) all new public school buildings in the state built to meet the most recent LEED Silver Certification. To ensure that goals and standards are met, utilize a performance-based procurement strategy, starting with the initial Request for Proposals (RFP). Performance-based procurement focuses on desired outcomes and performance for the end user, rather than the specific products or approaches used. Procurement processes should have high performance or zero energy goals written in, and should take advantage of creative input from contractors and design teams. Goals for Energy Use Intensity (EUI), or zero energy, are important for achieving desired energy efficiency results; chapter 3, Table 2 of the NREL report [A Guide to Zero Energy and Zero Energy Ready K-12 Schools](#) provides specific EUI guidance for different school types and climate zones. For example, in climate zone 5A (which includes MA, RI, parts of NY) the site EUI target for a secondary school should be roughly 19.1 kBtu/ft²-yr.

Guidance for Working with ESCOs

- Energy Service Companies (ESCOs) develop, design, and finance energy savings projects using Energy Savings Performance Contracting (ESPC). The U.S. Department of Energy's [ESPC Toolkit](#) and [Better Buildings Financing Navigator](#) provide guidance on working with ESCOs. The Better Buildings [ESPC Preliminary Self-Diagnosis Tool](#) suggests that if your facility has more than 50,000 square feet of floor area and you spend more than \$60,000 on energy annually, then an energy performance contract might be a good fit. This is especially so if you have aging buildings or equipment, a very limited budget, little



in-house expertise, or other constraints. The PNNL [Guide to Performance Contracting with ESCOs](#) also includes guidance on whether working with an ESCO is the right choice for your project and needs.

- Energy Savings Performance Contracting (ESPC) enables schools to pay for energy efficiency upgrades using the savings generated by those upgrades over time. The ESCO model is used in existing buildings, as opposed to performance-based procurement which is used for new construction or major renovations.

Importance of an Owner's Project Manager

- Also called an owner's project representative or just an owner's representative, these are people that school districts could hire to help with large-scale projects to ensure the school district's interests are met. The Massachusetts School Building Authority has a [number of resources on the OPM process](#), including an OPM model request for proposals. Roles and responsibilities include: providing advice and consultation with respect to design, scope of work, and cost estimating; general contractor and subcontractor prequalification; scheduling and negotiation with a designer and a general contractor for the project; etc. OPMs work in conjunction with the project owner and serves as an extension of their staff. Their primary role is to protect the owner's interests, to ensure that the owner is well-served, and that the established goals and objectives are met in the most efficient manner. Larger, more expensive projects should always have an OPM.

Other Grants to Consider

The two schools-focused grants described at the beginning of the brief are great places to focus, but they are not the only funds available. The following three grants are not open to school districts directly, but schools could partner with states and other governmental bodies to take advantage of these grants in combination with other money. The final category, electric school bus funds, does include grants that school districts are eligible to apply for directly.

Energy Efficiency and Conservation Block Grant Program \$500,000,000

- Open to states, local governments, and tribes
- Can cover commercial (which includes schools) energy audits
- Development of an energy efficiency and conservation strategy and the technical consultant services to develop it
- The provision of grants to nonprofit organizations and governmental agencies for the purpose of performing energy efficiency retrofits
- Development and implementation of energy efficiency and conservation programs for buildings and facilities within the jurisdiction of the eligible entity, including
 - design and operation of the programs;
 - identification of the most effective methods for achieving maximum participation and efficiency rates;
 - public education;
 - measurement and verification protocols; and
 - identification of energy efficient technologies
- Distributed energy resources and district heating/cooling systems

State Energy Program \$500,000,000



- Open to states
- Eligible uses: energy conservation, renewables, and programs for increasing clean energy deployment in buildings, transportation, and industry

Appalachian Regional Commission Funds \$800,000,000

- Open to states, local governments, and non-profits in the ARC region, including Maryland, New York, Pennsylvania, and West Virginia
- Eligible uses: Activities that support the goals of building Appalachia’s businesses, workforce ecosystem, infrastructure, regional culture and tourism, and community leaders and capacity

Electric School Bus Funds

- Clean School Bus Program \$5,000,000,000
- Low- and No-Emission Transit Bus Program \$5,600,000,000
- State Energy Program \$500,000,000

Additional Resources

- [Maintenance and Capital Planning](#) – Massachusetts School Building Authority
- [What You Need to Know About the Energy Efficiency and Conservation Block Grant](#) – National League of Cities
- [State Infrastructure Coordinator’s role](#)
- [DOE Energy Efficiency and Renewable Energy Funding Opportunity Exchange](#)
- [Bipartisan Infrastructure Law Homepage](#) – Department of Energy
- [How to Apply for and Manage Federal Grants](#) – Energy Communities