Bipartisan Infrastructure Law (BIL) - Request for Information on Energy Improvements at Public School Facilities
DE-FOA-0002715

DATE: April 4th, 2022
SUBJECT: Request for Information (RFI)

Description

The 100,000 public K-12 schools across the United States (U.S.) contain the classrooms, libraries, cafeterias, playgrounds, and gyms where 50 million students learn, eat, build friendships, and exercise. As the second largest sector of public infrastructure spending in the U.S., public K-12 schools are also a center of our communities, serving as voting and polling locations, emergency shelters, and community gathering places.[1] The significant under-investment in energy improvements at American schools, however, results in unnecessarily high utility costs and contributes to unhealthy and uncomfortable environments for students, teachers, and staff.

The Infrastructure Investment and Jobs Act (IIJA) (Pub. L. 117-58), American Rescue Plan Act of 2021 (ARP) (Pub. L. 117-2), and 2021 Coronavirus Response and Relief Supplemental Appropriations Act (CRRSAA) (Pub. L. 116-260, Div. M), provide tens of billions of dollars in new funding to U.S. K-12 public schools for facility and transportation improvements. Strategic use of this funding will help remedy the historic inequity of school facilities investments, reduce school energy expenditures, help schools lead the nation in solving the climate crisis, and create good-paying union jobs.

Through this RFI, the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy (EERE) seeks input regarding the implementation of Section 40541 of the IIJA, which provides $500 million for grants for energy improvements[2] at public school facilities.

[1] Mary Filardo. (2021) *2021 State of Our Schools: America's PK-12 Public School Facilities.* Washington, D.C.: 21st Century School Fund.

[2] **Section 40541(a)(4): The term "energy improvement" means—(A) any improvement, repair, or renovation to a school that results in a direct reduction in school energy costs, including improvements to the envelope, air conditioning system, ventilation system, heating system, domestic hot water heating system, compressed air system, distribution system, lighting system, power system, and controls of a building; (B) any improvement,**

DOE aims to facilitate substantial additional investment, prioritize schools with high needs, minimize administrative burden, and build enduring capacity in local educational agencies (LEAs) and the states to maximize impact equitably and efficiently.

Background

Energy consumption at U.S. public K-12 schools is a significant source of U.S. greenhouse gas emissions and the second highest operational expense to schools, second only to salaries.[3] Estimates derived from the Commercial Building Energy Consumptions Survey show that the 65 TWh of electricity[4] and 140 TBtu[5] of natural gas consumed by U.S. public schools annually contributes 33 million metric tons of carbon dioxide equivalent emissions[6]. Off-the-shelf energy improvements, including heating, ventilation, and air-conditioning (HVAC) replacement[7] and re-tuning[8], can reduce school energy use by 10–30% and create healthier and more comfortable educational environments for students and teachers. Packages of energy improvements, e.g. combining HVAC and lighting upgrades with solar water heating[9], can save even more energy, and zero-energy or zero-energy ready construction can reduce energy consumption by more than 65%.[3] These improvements can pay dividends for years to come: every dollar saved on utility bills is a dollar that can be better spent on educating children.

Many of America's schools are in desperate need of facilities upgrades that address health, safety, and energy issues through the use of energy improvements. The Government Accountability Office's (GAO) study of school districts found that an estimated 36,000 schools nationwide need HVAC improvements—including in some cases installing HVAC systems where none currently exists—[10] and even more require interior lighting fixture, roofing, safety, structural, and environmental improvements. The American Society of Civil Engineers grades

repair, or renovation to, or installation in, a school that (i) leads to an improvement in teacher and student health, including indoor air quality; and (ii) achieves energy savings; (C) any improvement, repair, or renovation to a school involving the installation of renewable energy technologies; (D) the installation of alternative fueled vehicle infrastructure on school grounds for—(i) exclusive use of school buses, school fleets, or students; or (ii) the general public; and (E) the purchase or lease of alternative fueled vehicles to be used by a school, including school buses, fleet vehicles, and other operational vehicles.

[3] https://betterbuildingssolutioncenter.energy.gov/accelerators/zero-energy-schools

[4] https://www.eia.gov/consumption/commercial/data/2012/c&e/cfm/pba4.php

[5] https://www.eia.gov/consumption/commercial/data/2012/c&e/cfm/pba5.php

[6] Conversion factors are from EIA for natural gas and EPA for electricity.

[7] https://betterbuildingssolutioncenter.energy.gov/sites/default/files/PNNL-23790.pdf

[8] https://www.sciencedirect.com/science/article/abs/pii/S0378778819319553?via%3Dihub

[9] Dysart Unified School District: Kingswood Elementary School | Better Buildings Initiative (energy.gov)

[10] US Government Accountability Office. (2020). K-12 Education: School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement. GAO-20-494.

our nation's 100,000 public K-12 schools[11] a dismal D+ in their *2021 Report Card for America's Infrastructure*.[12] According to the *2021 State of Our Schools Report*, public school districts spend $110.1 billion annually on maintenance and operations and capital construction, which is $85 billion short of the funding needed to provide adequate and equitable school facilities.[13] While documentation about the needs of specific school facilities varies widely across the country; the GAO report estimates that only 53% of students attend schools that have had a facilities condition assessment in the last 5 years.

Dilapidated school facilities can also negatively affect student learning and health. Indoor air quality problems can aggravate respiratory illnesses, reduce student and teacher attendance and performance, and increase risk of transmission of respiratory infections like COVID-19.[14,15,16,17,18] Efficient and high-quality lighting systems and improved access to daylight can also improve the wellbeing of school occupants and enhance learning environments.[19,20] Strategic investments in HVAC retrofit and commissioning, ventilation and filtration, indoor air quality (IAQ) monitoring, and high-quality lighting systems will provide lasting, beneficial improvements for students and school employees, while reducing energy consumption.

Districts that serve rural, high poverty, or Hispanic/Latino, African American, and Native American communities experience the greatest burden of failing or antiquated school facilities.[21] Annual capital funding at schools in high poverty districts is 37% lower than in low poverty districts, and spending is even lower in high poverty districts that serve rural or minority communities. Health and safety problems disproportionately impact schools in

---

[11] https://nces.ed.gov/programs/digest/current_tables.asp
[12] *https://infrastructurereportcard.org/cat-item/schools/*
[13] Mary Filardo. (2021) *2021 State of Our Schools: America's PK-12 Public School Facilities.* Washington, D.C.: 21st Century School Fund.
[14] US EPA. Reference Guide for Indoor Air Quality in Schools
[15] David P. Wyon & Pawel Wargocki. (2013). "How Indoor Environment Affects Performance." *ASHRAE Journal.* 55(3) 46-52.
[16] Julia C. Luongo et al. (2016). "Role of mechanical ventilation in the airborne transmission of infectious agents in buildings." *Indoor Air.* 26(5) 666-678.
[17] William J. Fisk (2017). "The ventilation problem in schools: literature review." *Indoor Air.* 27(6) 1039-1051.
[18] Henk W. Brink et al. (2021). "Classrooms' indoor environmental conditions affecting the academic achievement of students and teachers in higher education: A systematic literature review." *Indoor Air.* 31(2) 405-425.
[19] Figueiro, M. G., & Rea, M. S. (2010). Lack of short-wavelength light during the school day delays dim light melatonin onset (DLMO) in middle school students. Neuroendocrinology letters. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3349218/
[20] Sarah F. Safranek Robert G. Davis September (2018). DOE Report: Evaluating Tunable Lighting in Classrooms: Trial LED lighting systems in three classrooms in the Folsom Cordova Unified School District https://www.energy.gov/sites/default/files/2019/05/f62/2018_folsom_classroom-tunable%20lighting_0.pdf
[21] https://www.publicadvocates.org/our-work/education/williams-v-california/

disadvantaged communities serving low-income student populations, which also suffer from dirtier outdoor air and are less likely to have dedicated facility managers.

Historic investments in public K-12 school infrastructure are being made through tens of billions of dollars of additional funding or expanded eligibility in the IIJA, ARP, and CRRSAA. Section 40541 of the IIJA provides $500 million for grants for energy efficiency improvements and renewable energy improvements at public school facilities that will be awarded through competitive grants by DOE, with a priority for projects in rural and high-poverty schools. Additional funding and eligibility are available for schools under other IIJA sections[22], e.g., EPA's clean school bus program (Section 71101)[23], DOT's grants for charging and fueling infrastructure (Section 11401), EPA's drinking water remediation program (Section 11401), and Department of Commerce's grants for broadband deployment (Section 60102).

Local governments and agencies that serve disadvantaged communities[24] face multiple barriers to receiving competitive federal funds.[25,26] The overwhelming majority of local school districts are small and may lack the capacity to apply for federal grants that can be used for managing, financing, and execution of the district's capital improvement needs.[27] DOE aims to strategically deploy this funding and help remedy the historic inequity of school facilities investments in line with DOE's commitment to deliver the benefits of clean energy investments to disadvantaged communities.[28]

The Section 40541 grant program encourages the leveraging of additional private sector, philanthropic, and public sector funding to maximize the benefits of the $500 million in federal grants. Districts and schools can leverage a combination of sources to fund energy improvements, including federal and state resources, utility programs, internal financing, debt financing, leasing arrangements, and energy service performance contracts among others. For example, Section 40541 grants can be combined with the 179D commercial buildings energy tax deduction[29] through public-private partnerships. Schools can also leverage private funding

[22] Build.gov
[23] Clean School Bus Program Funding | US EPA
[24] *OMB issued interim guidance that includes examples of benefits and indicators for identifying disadvantaged communities (see https://www.whitehouse.gov/wp-content/uploads/2021/07/M-21-28.pdf).*
[25] Christopher Flavelle (2021). "Billions for Climate Protection Fuel New Debate: Who Deserves It Most." *New York Times.* December 3, 2021.
[26] Aallyah Wright. (2021). "Rural Leaders Fear They'll Miss Out on Infrastructure Money. *Stateline.* November 22, 2021.
[27] Mary Filardo. (2021) *2021 State of Our Schools: America's PK-12 Public School Facilities.* Washington, D.C.: 21st Century School Fund.
[28] https://www.whitehouse.gov/omb/briefing-room/2021/12/02/delivering-on-justice40/
[29] 179D Commercial Buildings Energy-Efficiency Tax Deduction for Public Schools | Department of Energy

through energy service performance contracts to minimize performance risk, achieve deeper energy savings, address deferred maintenance needs, and improve occupant comfort and health.[30] DOE intends to prioritize and support projects that leverage other private and public sector funds while targeting schools most in need to maximize the public benefits of the IIJA grant funding.

Purpose

The purpose of this RFI is to solicit feedback from LEAs, school staff, states, local governments, energy service companies, clean energy finance providers, labor unions, service providers, utilities, researchers, community partners, manufacturers, and other stakeholders on issues related to program development and execution of BIL Section 40541. EERE is specifically interested in information on 1) capacity development and technical assistance needs of applicants and their stakeholders and partners; 2) how to define, support, and leverage the needs assessments required of applicants; 3) appropriate criteria and metrics; 4) workforce development and supporting high-quality jobs; 5) potential partnerships structures and models to achieve the goals of the provision and maximize impact; and 6) pathways and models to leverage the financial investments to reach more facilities and achieve deeper impact. This is solely a request for information and not a Funding Opportunity Announcement (FOA). EERE is not accepting applications.

Disclaimer and Important Notes

This RFI is not a Funding Opportunity Announcement (FOA); therefore, EERE is not accepting applications at this time. EERE may issue a FOA in the future based on or related to the content and responses to this RFI; however, EERE may also elect not to issue a FOA. There is no guarantee that a FOA will be issued as a result of this RFI. Responding to this RFI does not provide any advantage or disadvantage to potential applicants if EERE chooses to issue a FOA regarding the subject matter. Final details, including the anticipated award size, quantity, and timing of EERE funded awards, will be subject to Congressional appropriations and direction.

Any information obtained as a result of this RFI is intended to be used by the Government on a non-attribution basis for planning and strategy development; this RFI does not constitute a formal solicitation for proposals or abstracts. Your response to this notice will be treated as information only. EERE will review and consider all responses in its formulation of program strategies for the identified materials of interest that are the subject of this request. EERE will

[30] Energy Savings Performance Contracting (ESPC) Toolkit | Better Buildings Initiative

not provide reimbursement for costs incurred in responding to this RFI. Respondents are advised that EERE is under no obligation to acknowledge receipt of the information received or provide feedback to respondents with respect to any information submitted under this RFI. Responses to this RFI do not bind EERE to any further actions related to this topic.

Confidential Business Information

Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery two well-marked copies: one copy of the document marked "confidential" including all the information believed to be confidential, and one copy of the document marked "non-confidential" with the information believed to be confidential deleted. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

Evaluation and Administration by Federal and Non-Federal Personnel

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-Federal personnel. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to EERE providing their response to non-Federal parties. Non-Federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

Request for Information Categories and Questions

Category 1: Capacity Development

To attract high-quality applications from LEAs that meet the prioritization criteria of Section 40541(d)[31], DOE is exploring ways to provide technical assistance to potential applicants to both apply for and manage awards as well as more generally to develop projects, operate, and maintain school facilities. Grant applications and administration can be complicated and time-consuming, often involving significant outlays of fiscal resources to develop a grant proposal. Administrative and fiscal capacity constraints at public school districts may limit the ability of LEAs that serve rural, disadvantaged, and under-resourced communities to learn about DOE funding opportunities, write high-quality competitive applications, and execute improvement projects effectively. Similar capacity constraints may hamper a school's ability to identify, develop, manage, and maintain energy improvement projects.

Category 1 Questions – Capacity Development

1. What measures could DOE take to minimize the burdens and barriers to LEAs and their partners to apply for and manage awards, including through streamlining the application process; and are there examples of this being done successfully?
2. For which aspects of school facilities projects (e.g., needs assessments and energy audits, contracting, performance contracting, financing, project management, maintenance and operations) are LEAs most in need of additional capacity?
3. Effective technical assistance (e.g., technical, financing, or project management guidance; connecting LEAs with supporting partners or financing opportunities):
    a. What kinds of technical assistance would be most effective in helping LEAs and their partners develop competitive applications and build long term capacity to maintain and enhance their facilities?
    b. What are examples of organizations that are currently providing effective technical assistance to LEAs and their partners?

[31] Section 40541 (d): (1) In awarding grants under this section, the Secretary shall give priority to an eligible entity—(a) that has renovation, repair, and improvement funding needs; (B)(i) that, as determined by the Secretary, serves a high percentage of students, including students in a high school in accordance with paragraph (2), who are eligible for a free or reduced price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.); or (ii) the partnering local educational agency of which is designated with a school district locale code of 41, 42, or 43, as determined by the National Center for Education Statistics in consultation with the Bureau of the Census; and (C) that leverages private sector investment through energy-related performance contracting. (2) In the case of students in a high school, the percentage of students eligible for a free or reduced-price lunch described in paragraph (1)(B)(i) shall be calculated using data from the schools that feed into the high school.

Category 2: Needs Assessments

Section 40541(c)(A) requires eligible entities to provide in their application "A needs assessment of the current condition of the school and school facilities that would receive the energy improvements if the application were approved." Within the industry, the focus and depth of needs assessments vary substantially,[32,33,34] and other terms like facilities condition assessments or audits are often used to describe similar assessment activities. The use of needs assessments in US public K-12 school facilities is inconsistent. While most states do not conduct statewide needs assessments for public schools, an estimated two-thirds of districts conducted a facilities condition assessment at least once in the last 10 years, according to the GAO.[35] However, only half of American public-school students attend a school that had a facilities condition assessment in the last 5 years.

The energy improvement needs of a school facility could be determined using methods that range in complexity, from simple tools to simple reviews of facilities to investment grade audits. For example, tools that evaluate the performance of the existing facility can be used to identify facilities with improvement needs. These tools could include DOE's Asset Score[36], which is an evaluation of the physical and structural energy efficiency of the school facility design; EPA's ENERGY STAR® Portfolio Manager®[37], which compares measured energy use to reference or similar buildings; the metered utility use of the school facility; and measurements of indoor air quality. Other information gleaned from visual inspections and document review, such as the age of the facility, system, or details on the mechanical equipment installed, could also be used as a proxy for energy improvement needs. Many of these approaches may not consider the wide range of environmental factors that can impact school health, comfort, and safety.[38]

Category 2 Questions – Needs Assessments

1. Appropriate scope of needs assessment:
    a. What information should be collected in a needs assessment to develop plans for energy, health, and safety benefits of energy improvements at school

[32] Paul Torcellini et al. (2019). *A Guide to Zero Energy and Zero Energy Ready K–12 Schools.* NREL/TP-5500-72847

[33] James Kelsey et al. (2011). *Procedures for Commercial Building Energy Audits*. 2nd Edition. Atlanta, GA: ASHRAE

[34] https://www.appa.org/bok/facilities-condition-assessment/

[35] US Government Accountability Office. (2020). *K-12 Education: School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement.* GAO-20-494.

[36] Building Energy Asset Score | Department of Energy

[37] Benchmark Your Building Using ENERGY STAR® Portfolio Manager® | ENERGY STAR Buildings and Plants | ENERGY STAR

[38] https://www.epa.gov/schools

facilities and to balance the identification of comprehensive projects while maintaining ease of application?

   b. To what extent are schools capable of conducting such a needs assessment with in-house staff and/or specifying and procuring consulting services for needs assessments?
   c. What is the typical range of costs and time required to conduct such a needs assessment for a public K-12 school (in $/sq. ft. or similar units)?

2. What successful models or best practices have LEAs employed to conduct a needs assessment for energy and health improvements and how are these typically funded?
3. What barriers exist for LEAs and schools to collect, track, and share information on energy use and facility assessments, including additional assets (e.g., portable classrooms, auxiliary structures, etc.)?

Category 3: Criteria and Metrics

Statutory Direction: Prioritization Criteria
DOE is directed to give priority to an eligible entity that has renovation, repair, and improvement funding needs; serves a high percentage of students who are eligible for a free or reduced-price lunch (FRPL) or whose partnering LEA is designated with a rural school district locale code; and that leverages private sector investment through energy-related performance contracting. See Section 40541(d).**Error! Bookmark not defined.** Fair administration of these prioritization criteria requires consideration of data availability and collection methodologies.

- Potential Challenges: School districts may report free and reduced price lunch in several ways (FRPL, direct certification, and community eligibility) [39,40,41] and those data could be augmented by alternative measures of child poverty, such as the US Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program.[42] There are challenges to calculating FRPL statistics for high schools using data from the schools that feed into the high school, as directed by the statute. Since schools may have locale codes that differ from their LEA, use of district level locale codes may exclude schools with rural locale codes. Rural and small school districts that serve fewer and smaller schools may face challenges leveraging performance contracting.[43]

Statutory Direction: Bond Capacity

[39] NCES Blog | Understanding School Lunch Eligibility in the Common Core of Data (ed.gov)
[40] Microsoft Word - EconDisadvComponent Review_June15.docx (maine.gov)
[41] NCES Blog | Understanding School Lunch Eligibility in the Common Core of Data (ed.gov)
[42] Small Area Income and Poverty Estimates (SAIPE) Program (census.gov)
[43] ESPC for Small Projects FINAL_May 2021_web version.pdf (energy.gov)

DOE is directed to consider the extent of the disparity between the fiscal capacity and needs of the partnering LEA for energy improvements, including the current and historic ability of the LEA to raise funds, the ability of the LEA to issue bonds and receive other funds, and the bond rating of the LEA. See Section 40541 (e)(1). Fiscal data on many public school districts is available from the US Census Bureau's Census of Governments.[44] Data on bond issuances are also available from private or state government sources.[45]

- Potential Challenges: Many districts may not have bond ratings. While these data do not provide a direct measure of fiscal capacity or ability to raise funds as described in the statute, several of these data may be combined as a proxy for fiscal capacity. Relevant data categories include capital school construction outlay, interest on long term debt, utility expenditures, and operations and maintenance expenditures.

Statutory Direction: Energy Improvements

DOE is directed to consider the potential energy efficiency, health, and safety benefits from the proposed energy improvements. See Section 40541 (e)(3). Energy improvements include school improvements, repairs, or renovations that reduce energy costs or improve teacher and student health and achieve energy savings, installation of renewable energy, installation of alternative fueled vehicle infrastructure, and the purchase or lease of alternative fueled vehicles. See Section 40541 (a)(4) and footnote 2 for the statutory definition. DOE is also directed to consider the likelihood that the partnering local educational agency or eligible entity will maintain, in good condition, any school and school facility that is the subject of improvements.

Measurement and Evaluation

Potential grant recipients may be required to report the estimated costs of the energy improvements, cost savings realized by those energy improvements, the results of third-party investigation and analysis, the use of utility programs and public benefit funds, and the use of performance tracking for energy improvements. See Section 40541(i). To ensure that energy improvements implemented in schools are achieving health and safety benefits as planned, a combination of continuous monitoring, one-time assessment, and reporting will be required. A protocol for measurement and verification of the energy, health, and safety benefits of the energy improvements will be established so that the data collected from awardees can be compared with one another and analyzed for program evaluation. Standardized formats for

[44] Census of Governments

[45] Schoolbondfinder.com Where to find information about local school bond and tax elections - Ballotpedia

reporting project results help reduce the effort to compile data for program evaluation and improve data quality.

Category 3 Questions – Criteria and Metrics

1. What metrics, data, methods, screening tools, etc. are available for identifying the LEAs and schools most in need of energy improvements?
2. What metrics are available to measure the fiscal capacity of LEAs, including raising funds and issuing bonds; and how should DOE establish prioritization criteria for the fiscal capacity of the LEA?
3. How can eligible entities best assess, demonstrate, and articulate the likelihood that they will maintain in good condition any facility improvements?
4. How can eligible entities best assess, demonstrate, and articulate the degree to which they can leverage other funding, including energy service performance contracting?
5. What metrics, criteria, required performance levels, and standardized reporting formats or tools should be used to demonstrate and report project and program metrics, including costs, energy savings, health, and safety benefits?

Category 4: Workforce

As an agency whose mission is to help strengthen our country's energy prosperity, the Department of Energy strongly supports investments that expand union jobs, improve job quality through the adoption of strong labor standards, improve job access, foster safe, healthy, and inclusive workplaces and communities, and develop a diverse and inclusive workforce pipeline. The Department intends to use Section 40541 funding to support good-paying jobs with the free and fair choice to join a union, as well as training and placement programs, especially joint labor-management partnership efforts, registered apprenticeships, and pre-apprenticeship programs to support access to career-tracking training and employment for workers from disadvantaged communities. The Department will emphasize the use of local hire, encourage applicants to provide a plan to attract, train, retain, or transition the workforce, and ask applicants to demonstrate how they are engaging with labor unions and joint labor-management training programs. The Department is also committed to ensuring that energy improvements, including HVAC improvements, are performed by a skilled, trained, and certified workforce.

Workforce development may be built through Section 40541(f)(2) and (3) funding, which allows grant recipients to allocate up to 5% of awards for operation and maintenance training and up to 3% of awards for continuing education. Section 40541(g)(1) and (2) also requires grantees to encourage the maximum practicable number of qualified bidders, including small, minority, and

women-owned businesses, and priority to businesses located in the State or geographical area where the improvement is carried out.

Category 4: Questions – Workforce

1. How should DOE evaluate a school's current facility operations and maintenance capacity, including to maintain energy improvements implemented under this program?
2. What pathways exist to improve operations and maintenance capacity of school staff (e.g., Joint Apprenticeship Training Centers (JATCs) and/or other continuing education)?
3. What elements (e.g., training, certifications, etc.) contribute to the quality assurance of energy improvements being installed and operated properly?
4. What workforce models (e.g., training, partnership, career maps, etc.) exist to ensure that members of rural and disadvantaged communities have access to the work associated with school energy improvements?
5. Are there school retrofit programs or policies (e.g., project labor agreements, etc.) that have led to optimal workforce outcomes, and if so, please describe.
6. What educational programs/models exist to integrate school facility energy performance with STEM K-12 curriculum and/or encourage student engagement in project execution (e.g., monitoring and verification)?

Category 5: Leveraging Funds

Billions of dollars in federal, state, utility, and private funds are available to support energy improvements at K-12 public schools. These include IIJA funding, Elementary and Secondary School Emergency Relief (ESSER) funds through ARP and 2021 CRRSAA, State and Local Fiscal Recovery Funds through the ARP, competitive grants at federal agencies, federal tax incentives that can be leveraged through public-private partnerships, utility incentive programs, state funding programs, and energy service contracting. LEAs may find it challenging to navigate, stack, and leverage this wide array of resources to fund energy improvements. LEAs need resources to identify qualified partners, including energy service companies (ESCO) and energy-as-a-service (EaaS) providers, utility energy efficiency programs, other third-party providers, small commercial building assessment centers (sCACs), or student training programs to provide services such as needs assessments, work plans and analysis, procurement, and construction.

Category 5 Questions – Leveraging Funds

1. What factors are considered when evaluating school projects for private sector investment?
2. Are there types of LEAs, geographic areas, or other factors that negatively impact access to leveraging and financing opportunities and what are these barriers?

3. What other resources, funds, program structures, and partnerships exist in your region or state for supporting school energy improvements (e.g., utility program support, state energy office or other technical assistance programs, public benefit funds, clean energy finance entities etc.)?
4. What are examples of successful attempts to leverage funds for school improvements and novel ways to capture value; and what is needed to scale these solutions?
5. What are examples of unsuccessful attempts to leverage funds for school improvements; and what could be done to improve these?
6. What models exist or could be developed to partner and/or cost-share with other resources and entities to reduce project costs, leverage outside funds, and increase the impact of DOE funding and programs (e.g., pooling of projects, etc.)?

Category 6: Partnership Structures

Section 40541 requires LEAs to form a consortium with schools and/or non-profit, for-profit organizations, and community organizations with the knowledge and capacity to partner and assist with energy improvements. See Section 40541 (a)(3). Partnerships are vital for overcoming capacity barriers at small, disadvantaged, and rural school districts. DOE wishes to develop sector and community-based partnership models and structures to overcome these barriers and enhance the energy, health, and safety benefits of the energy improvements at awarded schools. These partnerships should include labor unions and join labor-management training programs, including registered apprenticeship and continuing education for journey-level workers, as well as multi-craft core curriculum (MC3) pre-apprenticeship programs that improve access and inclusion in the construction trades.

Eligible entities receiving grants under this program may use up to 5 percent of the grant amount for operation and maintenance training, such as maintenance staff and teacher training, education, and preventative maintenance training, and up to 3 percent to develop a continuing education curriculum relating to energy improvements. See Section 40541 (f)(2) and (4). Operations and maintenance training are important to realize the continued performance and benefits of the energy improvements. For example, implementing automated Fault Detection and Diagnostics (FDD) hardware and software for HVAC equipment, together with training of school facilities staff on use of FDD as part of their operations and maintenance procedure, can help to identify waste, and ensure effective performance and savings persistence for HVAC measures in the longer term. Many school districts lack the capacity for managing the district's capital improvement needs, including operations and maintenance.

Category 6 Questions – Partnership structures

1. What factors do LEAs use to evaluate both public and private sector entities with whom to partner?
2. What innovative partnership structures have been used to realize economies of scale or other collective impacts for facility improvements and what factors were key to success?
3. What innovative partnership structures have been used to develop durable capacity for LEAs to effectively execute facility improvements and maintain performance?
4. How can DOE best facilitate the formation and sustainability of these partnerships?
5. What kinds of technical assistance (e.g., model contract documents, case studies, connecting LEAs with pre-qualified service providers, etc.) would be most effective to help LEAs and their partners stack and leverage funds to undertake facility energy improvements?
6. What kinds of technical assistance (e.g., model contract documents, case studies, connecting LEAs with pre-qualified service providers, etc.) would be most effective to help LEAs and their partners stack and leverage funds to undertake facility energy improvements?

Request for Information Response Guidelines

Responses to this RFI must be submitted electronically to SchoolsRFI@doe.gov no later than 5:00pm (ET) on May 18th, 2022. Responses must be provided as attachments to an email. It is recommended that attachments with file sizes exceeding 25MB be compressed (i.e., zipped) to ensure message delivery. Responses must be provided as a Microsoft Word (.docx) attachment to the email, and no more than 10 pages in length, 12-point font, 1-inch margins. Only electronic responses will be accepted.

Please identify your answers by responding to a specific question or topic if applicable. Respondents may answer as many or as few questions as they wish.

EERE will not respond to individual submissions or publish publicly a compendium of responses. A response to this RFI will not be viewed as a binding commitment to develop or pursue the project or ideas discussed.

Respondents are requested to provide the following information at the start of their response to this RFI:

- Company / institution name;
- Company / institution contact;
- Contact's address, phone number, and e-mail address.