



National Association of State Energy Officials

May 18, 2022

Submitted by:
National Association of State Energy Officials (NASEO)
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RE: Energy Improvements at Public School Facilities Request for Information Response

Dear Office of Energy Efficiency and Renewable Energy:

The National Association of State Energy Officials (NASEO) appreciates the opportunity to respond to the Request for Information (RFI) on Energy Improvements at Public School Facilities. NASEO is the only national non-profit association representing the governor-designated energy directors and their offices from each of the 56 States, Territories, and the District of Columbia. NASEO engages State Energy Offices to gain their input on energy policy and program best practices in every area of energy production and end use. For decades, NASEO and the State Energy Offices have worked with local governments, school officials, and energy technology, service, and financing providers to advance energy efficiency, renewable energy, and occupant comfort and safety in public schools.

In developing the criteria for the Energy Improvements at Public School Facilities Program, NASEO encourages the U.S. Department of Energy (DOE) to consider the following recommendations, examples, and partnership models compiled from State Energy Offices and their partners across the country.

Recommendation 1: Encourage projects demonstrating robust partnerships, including those that leverage the role of State Energy Offices.

Many State Energy Offices play a critical role in supporting local educational agencies and identifying resources to support their priorities and needs; convening key stakeholders within states, local governments, and the private sector; and providing trusted and impartial information on energy projects, technologies, and needs in the context of their states' unique market and policy landscape. For this reason, NASEO encourages DOE to prioritize proposals that promote partnerships among critical education and energy stakeholders, including State Energy Offices, community-based organizations, industry partners, and other groups that can ensure a robust and equitable response to the need for energy improvements in public schools.

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Recommendation 2: Consider supplemental metrics for identifying and funding underserved local educational agencies.

While the level of funding provided through IJA for energy improvements in school facilities is significant, the unfortunate reality is that due to chronic underinvestment in public schools, particularly those in disadvantaged communities, the level of need is much greater. For this reason, NASEO recommends DOE consider multiple, critical metrics in determining eligibility and designing the evaluation process for project proposals applying for funding and strive to ensure the highest-needs projects and communities are prioritized. In addition to the free and reduced-price lunch (FRPL) program, other metrics that can assist DOE in this effort include:

- Identification as a Title 1 school;
- Identification as an at-risk school;
- Graduation rate;
- Student and faculty absenteeism;
- Location within an identified disadvantaged community;
- Cost per pupil calculations; and/or
- Condition of the target facilities (e.g. based on an inventory of deferred maintenance, capital renewals, indoor environmental quality assessment results, code compliance).

While FRPL is a common metric used to indicate financial need within a school district, on its own, it may not necessarily be the most accurate measure of whether a school lacks access to non-federal resources. For example, a school district with a large percentage of students on FRPL might have an unrepresentative tax base in areas with seasonal homes or high commercial activity. In such cases, schools may not have the highest need for program funds, relative to other schools with high-FRPL enrollment, as they would be able to tap into this revenue base to conduct energy improvement projects. If the funding decision is solely based on one financial need metric such as FRPL, DOE could run the risk of allocating project dollars to a district of a higher property tax base while overlooking others that might have more urgent facility improvement needs and resource constraints. To reduce this risk, State Energy Offices should be strategic partners for DOE to determine areas and schools with the highest needs, for instance by leveraging state-specific environmental justice databases, schools data, and/or federal tools such as the U.S. Environmental Protection Agency (EPA) EJScreen, which have helped gear other State Energy Office policies and programs toward more equitable designs and outcomes.

Recommendation 3: Simplify and streamline the funding application process.

Most school district staff have limited time and financial resources to address a wide range of pressing education issues, faculty and student needs, and facility operation challenges, and they are navigating additional complex priorities, such as facilitating remote learning and re-opening schools, as the COVID-19 pandemic continues. While this funding opportunity will provide necessary upgrades to school energy and HVAC systems and complement ongoing air quality and ventilation efforts, the application process could pose a significant challenge. Unlike their state-level counterparts who are frequently eligible entities for federal funding, local educational

agencies may be unfamiliar with the process of applying for competitive DOE programs and lack the bandwidth to meaningfully participate despite demonstrated interest or need for funding. Without knowing the amount of funding that they could possibly receive, smaller school districts may also be discouraged from applying if there is a resource-intensive application process that would favor larger or better-funded districts. For these reasons, DOE should design funding applications in a streamlined manner and offer assistance in understanding and completing applications, particularly given the focus of this school energy program.

To address a potentially large application pool and simplify the application process, DOE should consider designing an application that requires an initial, simple concept paper and budget and request additional information if the project is selected or encouraged by DOE. If the project is awarded funding, reporting should also be streamlined to minimize duplication and to collect only information that offers high value to DOE. Many school districts have struggled with conducting regular facilities assessments and capturing rigorous measurement and verification metrics. As such, metrics should be simple, flexible, and readily available, which could include results from student-led energy audits and existing facilities data.

Recommendation 4: Provide guidance on Buy America requirements.

IJA expanded Buy America requirements to cover projects beyond the transportation and water infrastructure projects to which they traditionally apply, including transmission and electric facilities, broadband infrastructure, and real property. While NASEO applauds the effort to promote domestic manufacturing and materials procurement, we remain concerned about currently low levels of domestic production of high-efficiency energy equipment and its implications on the ability of resource-constrained local educational agencies to make much-needed energy and indoor air quality improvements in schools. NASEO recommends that DOE communicate proactively and provide guidance to prospective program applicants about Buy America requirements and opportunities to purchase U.S.-made products and construction materials through this program. For example, DOE could develop a database of high-volume equipment (e.g., lighting) or generate a list of vendors who offer various types of relevant equipment in sufficient volume.

Recommendation 5: Help local educational agencies access financing opportunities

DOE should encourage the use of innovative public-private financing approaches, such as Energy Savings Performance Contracting or (ESPC), to dramatically leverage limited federal funding. State Energy Offices may be able to help local educational agencies utilize ESPC or other public-private financing methods as a part of their proposed energy projects. DOE should proactively collaborate with interested State Energy Offices to assist schools in accessing ESPC or other financing approaches.

With these recommendations in mind, we also offer the following responses to select questions from the RFI that we feel help illustrate capacity-building opportunities between local educational agencies and states.

Category 1 – Capacity Development

Q1. 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?

In addition to offering their own statewide grant opportunities and operating schools-focused energy management programs, State Energy Offices are familiar with the DOE funding application process. As a result, collaborations between local educational agencies and State Energy Offices could help demystify that process for local educational agencies. DOE should proactively engage State Energy Offices and offer them application-writing resources to assist local education agencies.

Beyond application writing, local educational agencies will also need sustained technical expertise on energy-related topics to make the most out of program funds. Many State Energy Offices can offer technical assistance by pointing to existing statewide programs and success stories. State Energy Offices can also support the effort of maintaining high quality school facilities by making local educational agencies aware of all possible financing opportunities. Through State Energy Office-run ESPC and other special financing programs, local educational agencies can leverage limited public funding to access private funding. This can help extend the lifespan of a successful program if it is initially funded for only a limited term. DOE and NASEO can facilitate relationship-building between State Energy Offices and local educational agencies, recognizing State Energy Offices as knowledgeable collaborators for building long-term capacity. Coordination with State Energy Offices should be a specific program policy factor considered by DOE as part of the local educational agency's application.

Q2. What are examples of organizations that are currently providing effective technical assistance to LEAs and their partners?

Many energy-related technical assistance programs for schools are run by the State Energy Offices. For instance, the California Energy Commission offers the Bright Schools Program for K-12 public schools across the state, providing no-cost technical assistance services and building energy audits to help identify energy savings and retrofit opportunities. Some activities offered through the program include conducting feasibility studies, reviewing existing proposals, developing equipment performance specifications, and reviewing commissioning plans. The South Carolina Energy Office offers a technical assistance program that provides recommendations for potential energy improvements after reviewing a school district's energy consumption data and evaluating equipment performance via an energy assessment. Interested districts can contact the State Energy Office and fill out a short application explaining their assessment needs. The office also maintains a list of federal and state incentives, loan, and grant programs that can help finance projects. The State Energy Conservation Office in Texas contracts with engineering firms to provide cost-free energy consultation services to eligible school entities, ranging from basic recommendations to in-depth feasibility studies.

Some technical assistance programs are sponsored by local utility and energy service providers instead of State Energy Office-led, such as the Mass Save program in Massachusetts. Mass Save offers trainings, incentives, and services on a geographical basis, where school districts in Massachusetts are encouraged to contact their sponsor (either a utility or energy service provider) based on zip code for financial and technical assistance on reducing energy use and

operating costs. Previously awarded projects included on-bill repayment plans for LED lighting projects and project financing for HVAC improvements.

The school energy manager program structure has offered valuable technical assistance services to school districts as well. Programs administered by education agencies in Kentucky (the Kentucky School Energy Managers Program, explained below) and State Energy Offices in Rhode Island-equipped school districts across the state with energy managers that have provided valuable technical expertise toward:

- Implementing programs that focus on existing schools (e.g., the ENERGY STAR “Battle of the Buildings” Program);
- Providing educational materials for faculty and students to identify energy savings opportunities;
- Using ESPC for energy improvement project funding;
- Benchmarking building energy;
- Reviewing utility bills and identifying cost savings opportunities; and
- Identifying facility upgrade needs.

School districts, often facing constraints in their budgets, staffing, and time, can reap significant benefits from state-led technical assistance programs that help them determine energy efficiency and retrofit opportunities. This also highlights the need for top-down support from DOE to assist states without existing technical assistance programs, either by offering widely applicable technical guidance from the federal level or by increasing capacity at State Energy Offices so that they are adequately funded and staffed to operate their own programs or pay for contracted energy and engineering expertise.

Category 3 – Criteria and Metrics

Q5. 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?

The School House Energy Report Card was a study and report administered and produced by the Rhode Island School Building Authority under the Rhode Island Department of Education. The initiative conducted facilities assessments for 307 schools in 2017 and created Energy Report Cards for each facility. The Report Cards captured metrics on energy spend, energy use intensity, fuel mix, building age, estimated simple payback of proposed projects and accomplished the following:

- Benchmarked energy use;
- Assessed the condition of energy systems;
- Identified measures to improve energy efficiency;
- Identified strategies to reduce energy demand;
- Assessed feasibility of renewables; and

- Defined action plans towards Net Zero.

Findings from the program concluded that making all public-school facilities Net Zero Energy would lead to \$33.6 million in potential annual state-wide savings and emphasized the importance of assessment for identifying cost and energy use saving opportunities.

Through grant funding from a 2017 competitive SEP award, the West Virginia Office of Energy has a three-year Benchmarking and Transparency Initiative to inventory and benchmark all public buildings in West Virginia, beginning with K-12 and higher education school buildings. The project also provides workforce development training to students, university interns, faculty, and facility managers on using ENERGY STAR Portfolio Manager for benchmarking building energy use and other monitoring software. To sustain the effort beyond the award period, the West Virginia Office of Energy also seeks to develop policy that requires an annual energy review of all state government buildings by the 2022 legislative session and encourages participation from local governments receiving state aid for continued funding. House Bill 2667 was passed in March of 2020 and presented initiatives to save energy in public buildings. This bill called for creating an inventory of deferred maintenance and benchmarking energy use in all state buildings, auditing all utility accounts, and establishing a guaranteed ESPC program within the state. Since program inception, the West Virginia Office of Energy has successfully benchmarked 7 higher education institutions and 36 county school systems, projecting potential annual savings of nearly \$6 million across all public buildings statewide.

Other metrics to capture in school district energy assessments could include:

- Improvements in indoor air quality;
- Number of local staff trained to maintain any equipment installed, and continued performance as designed for a period of time (e.g. 36 months) after installation;
- Student transportation served with alternative fuel vehicles;
 - Use of the awarded facility for additional civic/community events above pre-installation baseline; and
 - Energy savings/ renewable energy generated.

Category 4 – Workforce

Q6. 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)?

There are several State Energy Office-led energy education initiatives that introduce energy topics into the K-12 curriculum and involve students in discovering energy savings solutions in their own school buildings. Utah’s Office of Energy Development developed over 30 state-standard lesson plans across the K-12 grade levels in partnership with Utah Science Teachers Association on energy and mineral-related topics. This initiative, along with hosting STEM-focused events and offering scholarships towards STEM education, reflects Utah’s energy-rich landscape and the goal of building a large future energy workforce. The South Carolina Energy

Office has utilized SEP funds to develop energy lessons that meet the state’s science standards and that students can use to increase their knowledge of energy topics such as auditing, energy efficiency, renewables, and alternative fuels. The office is also a member of Take Action SC, a partnership among state agencies, colleges, schools, and other environmental organizations that offers curriculum supplements on environmental action as well as an annual faculty workshop. Going into its third year, the North Carolina Clean Energy Apprenticeship and Pre-Apprenticeship Program prepare high school and community college students for careers in the fast-growing North Carolina renewable energy market. Anchored by North Carolina A&T State University, the nation’s largest historically black university, the apprenticeships are geared especially toward women and girls and people of color, who are underrepresented in the state’s clean energy economy. This workforce initiative is supported by the Department of Public Instruction, community colleges, and Governor’s Office, and is funded by the North Carolina Department of Environmental Quality.

The model programs referenced above are not exhaustive, with several other existing grants- and partnership-based energy education programs across State Energy Offices. Partnerships between K-12 school districts and local community colleges or universities might also yield model workforce development programs, with colleges or universities providing pro bono energy data management solutions to under-resourced school districts. This would not only ease the burden of data management for K-12 school districts, but also offer valuable hands-on professional experience to college and university students pursuing career opportunities in the clean energy and efficiency space.

Category 5 – Leveraging Funds

Q3. 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.)?

The Interagency Commission on School Construction (IAC), Maryland’s state educational entity in charge of approving school plans and conducting statewide school facilities assessments (among other activities), and the Maryland Energy Administration (MEA) have partnered to establish the 2022 Decarbonizing Public Schools Pilot Program. This program is funded by Maryland’s Strategic Energy Investment Fund and will provide two million dollars in grant funding to school districts to defray the costs of energy data management and incorporating net zero design considerations into new construction projects. A key objective of the program is to build the organizational capacity to use energy performance data and long-term planning for distributed energy to optimize energy use while minimizing overall construction and lifecycle operating costs. The program provides “get started” funding for school districts to onramp resources (e.g., consultants, software, staff) to enhance energy management and to incorporate net zero school construction planning into mid and long-range facility planning. The program prioritizes awards to school districts that do not currently have existing capacity to manage energy.

Proposition 39, the California Clean Energy Jobs Act, provided \$550 million annually between fiscal years 2013 and 2018 to fund energy efficiency projects in K-12 school and community college districts and to administer workforce development grant programs. An average of 85% of all Proposition 39 funds went to K-12 schools, with appropriations determined by the California Energy Commission (CEC) through a comprehensive application review process. To be considered for funding, school districts needed to develop expenditure plans that disclosed energy use and project priorities, encouraging continuous assessment and energy data management. CEC's involvement in administering Proposition 39 put the State Energy Office in position to understand the energy use profiles of school districts across the state and provide needs-based funding. Proposition 39 can be looked to as an example of how programs involving State Energy Offices might allow for continuous facilities needs assessments.

Q4. 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?

Several model school energy efficiency programs leveraged initial funding and/or program success to secure funds that would extend or supplement financing or energy efficiency projects. Examples include the Kentucky School Energy Managers Project and Oregon's utility-funded Public Purpose Charge school funds. The Kentucky School Energy Managers Project (SEMP) was launched using \$5 million from SEP funding in 2010, but was able to continue operating until 2018 after securing funding through a partnership with Louisville Gas & Electric and Kentucky Utilities Company. Oregon has a Public Purpose Charge created through legislation, which is funded by a one and a half percent service charge on consumer bill payments collected by two of Oregon's largest investor-owned utilities, PGE and PacifiCorp. Twenty percent of Oregon's Public Purpose Charge collections must go towards energy efficiency projects at public K-12 schools and fleet electrification. Both the Kentucky and Oregon examples involve utility participation; the former demonstrates how programs that demonstrate success in its pilot years can attract new stakeholders and financing partners while the latter demonstrates how legislative action can require utilities to invest in energy efficiency and open new public-private financing channels.

Category 6 – Partnership Structures

Q2. 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?

The Kentucky State Energy Office, the Department for Energy Development and Independence (DEDI), partnered with the Kentucky School Board Association to create the Kentucky School Energy Managers Project (SEMP). This project staffed 144 Kentucky school districts with energy managers to develop energy management solutions for each district modeled after the ENERGY STAR Guidelines for Energy Management. The project resulted in ENERGY STAR Certification for 455 schools in Kentucky, the third highest statewide percentage of certified schools in the country. Under the guidance of energy managers, districts successfully implemented energy improvement measures using ESPC and bond financing.

Several State Energy Offices administer ESPC programs, including Colorado, Maine, Oregon, Massachusetts, and North Carolina. Along with operating the program, many State Energy Offices have worked to develop technical resources such as pre-approved lists of ESCOs and guidebooks on using ESPC for public and state-owned buildings. These resources are created with the goal of easing the process of accessing additional private-sector funding for cost-intensive and longer-term capital projects.

Collaboration between State Energy Offices and local educational agencies can facilitate valuable data exchange not only on energy improvement needs, but also on granular information that captures the special needs of each district. Prioritizing under-resourced school districts for energy improvement project funding can be informed by metrics such as the true operating cost of each school, previous allocations of federal relief funds, student learning performance, local job creation potential, to name a few.

NASEO appreciates the chance to submit comments and is happy to provide follow-up information to any of the recommendations and responses provided here. Thank you for your consideration.

Best regards,

A handwritten signature in black ink, appearing to read 'David Terry', with a stylized flourish at the end.

David Terry
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