# Efficient and Healthy Schools campaign – Recognition

**Purpose**

The Efficient and Healthy Schools campaign aims to recognize K-12 schools and school districts that have implemented exemplary solutions involving HVAC upgrades and other approaches to reduce energy costs and improve energy efficiency and indoor air quality.

**Recognition Categories**

Schools and school districts – especially those serving low-income student populations – with exemplary strategies for efficient and healthy schools can be recognized for best practices by reporting actions and solutions from recent years (2018 or more recent). All recognition applicants should describe their solutions in one or more areas, and apply using the corresponding submission templates.

**Areas for Recognition Page**

**HVAC Inspection and Maintenance for IAQ 3**

Schools and school districts that implement an inspection and maintenance policy to ensure adequate ventilation and effective filtration for good indoor air quality (IAQ).

**Efficient HVAC for IEQ 8**

Schools and school districts that use technical specifications for HVAC retrofits, upgrades, and/or replacement, resulting in reduction in energy costs and improvements in energy efficiency and indoor environmental quality (IEQ).

**Ongoing Monitoring and Analytics for HVAC performance 13**

Schools and school districts that use energy management and information system (EMIS) to improve HVAC performance and operation through fault detection and diagnostics, benchmarking, and commissioning.

**Team Approach to Support Strategic Investments in Efficient and Healthy Schools 18**

Schools and school districts with a formal collaboration between facilities personnel, school administration, and the community for strategic planning and investment in efficient and healthy buildings.

Aside from the recognition categories outlined above, applicants are also encouraged to describe other approaches that demonstrate excellence and best practices toward the Efficient and Healthy Schools campaign goal. Please reach out to us at EHSC@lbl.gov for more information.

We will be prioritizing schools and school districts serving low-income student populations but welcome submissions from all.

**Instructions for Completing the Recognition Template**

* A school or school district may complete one or more areas for recognition.
* The recognition template may be completed by facilities or energy staff who is knowledgeable about HVAC practices and recent upgrades (2018 or more recent).
* A school district can decide to name one or more schools for recognition. Alternatively, best practices can also be recognized at a school district level.
* Completed submission should be email to EHSC@lbl.gov. If we have follow-up questions, we will schedule a virtual meeting with the contact person to better understand the information provided.
* We encourage schools and school districts to include supporting materials, such as their HVAC inspections and maintenance policy, technical specifications, energy efficient and indoor air quality goals, in support of their submission.
* The deadline for submission is Dec 17, 2021. Organizers of the Efficient and Healthy Schools campaign plan to review submissions in January 2022. Announcements for schools and school districts to be recognized will be publicized in spring 2022.
* Please reach out to us at EHSC@lbl.gov if you have any questions.

### HVAC Inspection and Maintenance for IAQ

Schools and school districts that implement an inspection and maintenance policy to ensure adequate ventilation and effective filtration for good indoor air quality (IAQ).

Recognition Submission Template

* Contact person

First name:

Last name:

Email address:

Phone number:

* Organization name:
* Name of school(s) to consider for recognition:

NOTE: Enter “district-wide” if recognition is applicable to the entire school district.

Part A: General HVAC inspections and maintenance practices

This set of questions ask for details about the HVAC inspections and maintenance practices that your schools follow in order to achieve good indoor air quality (IAQ). We encourage you to answer as many questions that apply to your schools, and provide additional descriptions where possible. Please consider sharing supporting materials, such as written policy, about your HVAC inspections and maintenance practices to help us better understand your approach.

1. Has your school district adopted a policy to preform periodic inspections of the HVAC systems?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. What is the typical frequency for performing periodic inspections of the HVAC systems?

[ ]  Annual

[ ]  Every 2 to 3 years

[ ]  Every 4 to 5 years

[ ]  As needed

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. Who is responsible for performing periodic inspections of the HVAC systems? Check all that apply.

[ ]  Facility engineers or technicians

[ ]  Facility manager

[ ]  Energy manager

[ ]  Consultant/service contractor

[ ]  Other 🡪 Describe:

1. Does your school district use a checklist or tool to document the inspections of HVAC systems?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district provide ongoing workforce training to support inspections of HVAC systems?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district perform periodic checks to confirm that bathroom exhaust fans are exhausting air to the outside?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. What is the typical frequency for performing periodic checks of bathroom exhaust fans?

[ ]  Annual

[ ]  Every 2 to 3 years

[ ]  Every 4 to 5 years

[ ]  As needed

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. Does your school district perform periodic checks to confirm that kitchen exhaust fans are exhausting air to the outside?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. What is the typical frequency for performing periodic checks of kitchen exhaust fans?

[ ]  Annual

[ ]  Every 2 to 3 years

[ ]  Every 4 to 5 years

[ ]  As needed

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. Does your school district use a qualified TAB (testing, adjusting, balancing) professional to measure and document that HVAC systems are performing?

[ ]  Yes

[ ]  No

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. If Yes to Q10 🡪 When does your school district use a qualified TAB professional for HVAC systems?

[ ]  Installing new HVAC equipment

[ ]  Performing HVAC retrofit

[ ]  HVAC commissioning

[ ]  HVAC inspection and maintenance

[ ]  Other 🡪 Describe:

1. Please describe aspects of the HVAC inspections and maintenance practices that are key to achieving good indoor air quality (IAQ) in your schools.

Part B: Best practices to improve ventilation and filtration

This set of questions ask for best practices that your schools have implemented to improve ventilation and filtration. We encourage you to answer as many questions that apply to your schools, and provide additional information where possible. Please consider sharing supporting materials to help us better understand the approach your schools have taken to improve ventilation and filtration.

1. Please describe effort that your schools have taken to improve ventilation in buildings.

*NOTE: Below are some questions to guide your response. Feel free to provide addition information to help us better understand the approach taken.*

What was the approach taken to improve ventilation in your schools?

*NOTE: For example, you may describe testing performed to verify HVAC system is bringing in adequate outside air for ventilation.*

Why was this work completed?

*NOTE: E.g., In preparation of school reopening; work prompted by complaint; equipment failure.*

Who performed the improvements?

*NOTE: E.g., School facilities staff; HVAC contractor; TAB professional.*

What was the level of effort (time, labor, and/or costs) involved?

*NOTE: For example, you may describe time, labor, and/or costs on a per HVAC system, or per site basis.*

 What are the lessons learned?

 *NOTE: For example, you may describe challenges, barriers, and unexpected outcomes (positive and/or negative) from this work.*

1. Was any work completed in recent years (2018 or more current) to improve filtration in your schools HVAC systems?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. If Yes to Q14 🡪 What type of work was implemented to improve filtration effectiveness? Check all that apply.

[ ]  Increase the minimum efficiency reporting value (MERV) of air filters

[ ]  Change filter rack to accommodate deeper air filters

[ ]  Reduce filter bypass

[ ]  Ongoing monitoring of pressure drop

[ ]  Other 🡪 Describe:

1. What approach was taken to determine the highest MERV filtration possible without adversely impacting equipment? Check all that apply.

[ ]  Test HVAC airflow and system capacity

[ ]  Review documentation on HVAC system design values

[ ]  Facilities working knowledge of the HVAC system

[ ]  Consult with HVAC contractor

[ ]  Consult with filter supplier

[ ]  Other 🡪 Describe:

1. What is the air filter MERV rating currently used in the schools after improvements were made? For HVAC systems that have a pre filter and a final filter, report the final filter MERV rating.

[ ]  MERV 4–6

[ ]  MERV 7–8

[ ]  MERV 9–11

[ ]  MERV 12–13

[ ]  MERV 14+

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. What was the final air filter MERV rating used in the schools before improvements were made? For HVAC systems that have a pre filter and a final filter, report the final filter MERV rating.

[ ]  MERV 4–6

[ ]  MERV 7–8

[ ]  MERV 9–11

[ ]  MERV 12–13

[ ]  MERV 14+

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. What is the estimated change in filter costs (material and labor) as a result of upgrading to higher MERV rating air filters in the schools?

[ ]  20% increase or less

[ ]  About 50% increase

[ ]  About 100% increase

[ ]  About 150% increase

[ ]  About 200% increase

[ ]  250% increase of greater

[ ]  Not sure

[ ]  Other 🡪 Describe:

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In addition to the recognition, we are also looking to develop short case studies. This will benefit other school districts looking for success stories that they can learn from and apply in their efforts towards efficient and healthy schools.

Are you interested in being considered for a case study?

[ ]  Yes

[ ]  No

[ ]  Not sure

### Efficient HVAC for IEQ

Schools and school districts that use technical specifications for HVAC retrofits, upgrades, and/or replacements, resulting in reduction in energy costs and improvements in energy efficiency and indoor environmental quality (IEQ).

Recognition Submission Template

* Contact person

First name:

Last name:

Email address:

Phone number:

* Organization name:
* Name of school(s) to consider for recognition:

*NOTE: Enter “district-wide” if recognition is applicable to the entire school district.*

Part A: Technical specifications for HVAC system retrofits, upgrades, and/or replacement

This set of questions ask for details about how ventilation, filtration, and other aspects of HVAC system are defined in your technical specifications. We encourage you to answer as many questions that apply to your schools, and provide additional descriptions where possible. Please consider sharing supporting materials, such as a copy of the technical specifications for HVAC system retrofits, upgrades, and/or replacements, to help us better understand your approach.

1. Does your school district use technical specifications to procure installation, retrofit and/or replacement of HVAC systems or components?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district set requirements for minimum outdoor air ventilation in HVAC technical specifications?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district set requirements for minimum filtration efficiency in HVAC technical specifications?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district set the minimum filter depth in HVAC technical specifications?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district set the limit for equipment noise in HVAC technical specifications?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district set the criteria for fan performance in HVAC technical specifications?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district include the following in your technical specifications for HVAC systems? Check all that apply.

[ ]  HVAC system provides a slope in condensate pans so that water does not stand.

[ ]  HVAC system provides access for cleaning coils and other components.

[ ]  Air stream surfaces are not porous.

[ ]  Insulation is not placed on internal air stream surfaces, except for sound attenuation insulation.

[ ]  Duct liners must meet ASTM standards for erosion resistance and water vapors sorption.

[ ]  Locate air intakes away from sources of potential air pollution, such as diesel fumes where school buses or other vehicles may be idling, or exhaust air from cooling towers, kitchen, or HVAC systems.

[ ]  Other 🡪 Describe:

1. Does your school district require testing and balancing to verify the minimum outdoor air ventilation following HVAC system retrofits, updates, and/or replacements?

[ ]  Always

[ ]  Often

[ ]  Sometimes

[ ]  Rarely

[ ]  Never

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. How does your school district use results from testing and balancing and/or commissioning following HVAC system retrofits, updates, and/or replacements? Check all that apply.

[ ]  Submit to state, local, or other agency in charge of project oversight

[ ]  Keep as internal records

[ ]  Hold contractors accountable to deliver adequate ventilation per design

[ ]  Use as documentation for project certification

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. Does your school district monitor for carbon dioxide (CO2) following HVAC system retrofits, upgrades, and/or replacements?

[ ]  Always

[ ]  Often

[ ]  Sometimes

[ ]  Rarely

[ ]  Never

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. What type of devices are used to monitor CO2 in your school or school district? Check all that apply.

[ ]  Handheld CO2 monitor

[ ]  CO2-enabled thermostat

[ ]  In-duct CO2 monitor

[ ]  Standalone, in-room CO2 monitor

[ ]  IAQ monitor measuring CO2 and other pollutant(s), such as particulate matter (PM)

 [ ]  Not sure

 [ ]  None; no CO2 monitoring

[ ]  Other 🡪 Describe:

1. How does your school district use CO2 monitoring data to inform if HVAC is bringing in adequate outdoor air ?

[ ]  Spot checks of CO2 during occupied hours

[ ]  Keep records of peak CO2 values

[ ]  Keep records of average CO2 values

[ ]  Analyze time trends of CO2 values

 [ ]  Not sure

 [ ]  None; no CO2 monitoring

[ ]  Other 🡪 Describe:

 Part B: Exemplary project to showcase quality implementation of efficient HVAC technologies

This set of questions ask for information about an exemplary project showcasing quality implementation of efficient HVAC technologies during retrofits, upgrades, and/or replacements. We encourage you to answer as many questions that apply to your schools, and provide additional information where possible. Please consider sharing supporting materials to help us better understand the technologies and approaches your schools have implemented.

1. Please present an exemplary project to showcase quality implementation of efficient HVAC technologies during retrofits, upgrades, and/or replacements.

*NOTE: Below are some questions to guide your response. Feel free to provide addition information to help us better understand the approach taken.*

What was the type of efficient HVAC technology implemented?

*NOTE: E.g., demand control ventilation; energy recovery ventilator; dedicated outside air system.*

Where and when was this technology implemented?

*NOTE: You may describe the site and the project performance period.*

Why was the technology a good fit for your schools?

*NOTE: You may describe existing building characteristics, climate considerations, energy goals.*

What was the energy saving achieved using this technology?

*NOTE: You may describe how energy savings were monitored, and how that compared with saving estimates.*

How was indoor environmental quality (IEQ) improved using this technology?

*NOTE: E.g., thermal comfort, occupant satisfaction, indoor air quality.*

 What are the lessons learned?

 *NOTE: You may describe challenges, barriers, and unexpected outcomes (positive and/or negative) from this implementation.*

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In addition to the recognition, we are also looking to develop short case studies. This will benefit other school districts looking for success stories that they can learn from and apply in their efforts towards efficient and healthy schools.

Are you interested in being considered for a case study?

[ ]  Yes

[ ]  No

[ ]  Not sure

### Ongoing Monitoring and Analytics for HVAC performance

Schools and school districts that use energy management and information systems (EMIS) to improve HVAC performance and operation through fault detection and diagnostics, benchmarking, and commissioning.

Recognition Submission Template

* Contact person

First name:

Last name:

Email address:

Phone number:

* Organization name:
* Name of school(s) to consider for recognition:

*NOTE: Enter “district-wide” if recognition is applicable to the entire school district.*

Part A: Use of energy management and information system (EMIS) in your school district

This set of questions ask for details about how your schools use energy management and information system (EMIS) to conduct monitoring-based commissioning or periodic performance tracking. We encourage you to answer as many questions that apply to your schools, and provide additional descriptions where possible. Please consider sharing supporting materials, such as a copy of the technical documentation of your EMIS, to help us better understand your approach.

1. Does your school district use energy management and information system (EMIS) to organize system and/or equipment data, monitor energy use, and/or inform repairs and improvements?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

 *NOTE: EMIS = A broad set of tools and services to manage building energy use, including capabilities to store, analyze, and display energy use and system data. In some cases, EMIS provide control. EMIS is a term that covers both meter-level and system-level.*

1. Which of the following describes how EMIS is used in your school districts? Check all that apply.

[ ]  Ongoing commissioning or monitoring-based commissioning (MBCx)

[ ]  Periodic performance tracking

[ ]  Retro-commissioning

[ ]  Energy performance contracting

[ ]  Other 🡪 Describe:

 *NOTE: MBCx = Review EMIS data on a frequent basis (e.g., daily) and correct building performance over time. Periodic performance tracking = Less structured than MBCx; review EMIS periodically (e.g., monthly) or as-needed to identify opportunities to improve energy efficiency and indoor environmental quality (IEQ). Retro-commissioning = Point-in-time commissioning (may occur every 3 to 5 year) to meet owner’s current operating requirements. Energy performance contracting = Project-based performance contracts that stipulate or guarantee savings.*

1. How many sites in your school district have EMIS capable of providing whole-building interval data?

[ ]  All

[ ]  Most

[ ]  Some

[ ]  Few

[ ]  None

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. How many sites in your school district have EMIS capable of providing monitoring and verification (M&V) of energy savings (i.e. create baseline model and monitor deviations from predicted energy use)?

[ ]  All

[ ]  Most

[ ]  Some

[ ]  Few

[ ]  None

[ ]  Not sure

[ ]  Other 🡪 Describe:

1. How many sites in your school district have EMIS integrated with submetering?

[ ]  All

[ ]  Most

[ ]  Some

[ ]  Few

[ ]  None

[ ]  Not sure

[ ]  Other 🡪 Describe:

 *NOTE: Submetering = Using multiple meters to collect real-time building energy data. Submeters capture information that is downstream of the main utility meter. Data can be used to disaggregate building loads to provide more granular information on energy use.*

1. How many sites in your school district have EMIS capable of fault detection and diagnostics (FDD) of building HVAC systems and/or equipment?

[ ]  All

[ ]  Most

[ ]  Some

[ ]  Few

[ ]  None

[ ]  Not sure

[ ]  Other 🡪 Describe:

*NOTE: FDD = tool that can automatically identify deviations from normal or expected operations, and sometimes isolate root causes of problem.*

1. How many sites in your school district have EMIS capable of supporting automated system optimization (ASO) of building HVAC systems and/or equipment?

[ ]  All

[ ]  Most

[ ]  Some

[ ]  Few

[ ]  None

[ ]  Not sure

[ ]  Other 🡪 Describe:

 *Note: ASO = tool to dynamically change settings to optimize energy use and system performance.*

1. What are the benefits your school district gained from implementing EMIS? Check all that apply.

[ ]  Energy savings

[ ]  Utility cost savings

[ ]  Peak demand reduction

[ ]  Improved occupant comfort

[ ]  Improved indoor air quality

[ ]  O&M staff labor savings due to improved operations

[ ]  Access to data to inform retrofit strategies

[ ]  Access to data to validate energy savings

[ ]  Other 🡪 Describe:

1. What are the barriers your school district faced in installing and using EMIS? Check all that apply.

[ ]  Difficulty getting support from schoolboard

[ ]  Difficulty selecting EMIS product

[ ]  Challenges with operation staff buy in to use EMIS

[ ]  Lack time to review EMIS reports or implement findings

[ ]  Data quality problems

[ ]  Lack of existing metering in place or cost of adding meters

[ ]  Challenges integrating data form various sources

[ ]  Difficulty maintaining operation use of EMIS over time

[ ]  Data overload and/or too many faults detected

[ ]  Other 🡪 Describe:

1. Did your school district receive incentives to offset costs for the EMIS implementation?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district support workforce training related to ongoing use of EMIS?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district routinely share EMIS data and/or findings with your school community? Check all that apply.

[ ]  Superintendent

[ ]  School board

[ ]  School administrators

[ ]  Students

[ ]  Parents

[ ]  Teachers

[ ]  No

[ ]  Not sure

[ ]  Other 🡪 Describe:

Part B: Exemplary efforts to improve HVAC performance and operation through EMIS

This set of questions ask for information about an exemplary effort showcasing the use of EMIS to improve HVAC performance and operation. We encourage you to answer as many questions that apply to your schools, and provide additional information where possible. Please consider sharing supporting materials to help us better understand your approach.

1. Please present an exemplary effort to showcase the use of EMIS to improve HVAC performance and operation.

*NOTE: Below are some questions to guide your response. Feel free to provide addition information to help us better understand the approach taken.*

What is the name of EMIS used?

*NOTE: This may be a tool that is able to report energy anomaly detection, or one that automatically identify system or equipment faults, or a building automation system that can monitor equipment operation and implement efficient control.*

Where and when was EMIS implemented?

*NOTE: You may describe the site and approximate date of installation.*

Why was the EMIS a good fit for your schools?

*NOTE: You may describe site conditions, energy goals, knowledge and familiarity with tool.*

What was HVAC energy saving achieved using EMIS?

*NOTE: You may describe an example where the use of EMIS led to improved HVAC performance and operation, and provide an estimate of the energy saving.*

How was indoor environmental quality (IEQ) improved using EMIS?

*NOTE: E.g., thermal comfort, occupant satisfaction, indoor air quality.*

 What are the lessons learned?

 *NOTE: For example, you may describe challenges, barriers, and unexpected outcomes (positive and/or negative) from using EMIS.*

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In addition to the recognition, we are also looking to develop short case studies. This will benefit other school districts looking for success stories that they can learn from and apply in their efforts towards efficient and healthy schools.

Are you interested in being considered for a case study?

[ ]  Yes

[ ]  No

[ ]  Not sure

### Team Approach to Support Strategic Investments in Efficient and Healthy Schools

Schools with a formal collaboration between facilities personnel, school administration, and the community for strategic planning and investment in efficient and healthy buildings.

Recognition Submission Template

* Contact person

First name:

Last name:

Email address:

Phone number:

* Organization name:
* Name of school(s) to consider for recognition:

*NOTE: Enter “district-wide” if recognition is applicable to the entire school district.*

This set of questions ask for details about goals and collaboration to improve energy efficiency and indoor air quality (IAQ) in your schools. We encourage you to answer as many questions that apply to your schools, and provide additional descriptions where possible. Please consider sharing supporting materials, such as a copy of your energy goals and formal alliance in your schools to support efficient and healthy buildings, to help us better understand your approach.

1. Does your school districts set energy goals or targets for reducing carbon emissions?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

*NOTE: Please consider sharing a copy of your school’s energy goals or targets to help us better understand your overall aims.*

1. Who are involved in setting energy goals or targets for reducing carbon emissions? Check all that apply.

[ ]  Facilities personnel

[ ]  Superintendent

[ ]  School board

[ ]  School administrators

[ ]  Students

[ ]  Parents

[ ]  Teachers

[ ]  Union representatives

[ ]  Other 🡪 Describe:

1. What activities has your school district completed or planned in response to the energy efficiency and/or carbon reduction goals? Check all that apply.

[ ]  Update technical specifications for new construction

[ ]  Prioritize major renovation projects

[ ]  HVAC system retrofits or replacements

[ ]  Improve energy monitoring and verification

[ ]  Changes to maintenance & operation practices

[ ]  Increase community engagement

[ ]  Water conservation efforts

[ ]  Transportation improvements

[ ]  Renewables

[ ]  Other 🡪 Describe:

1. Does your school district have an energy management team or a group of individuals who are responsible to lead efforts on improving energy efficiency?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. Who are the individuals involved in the energy management team responsible to lead efforts on improving energy efficiency? Check all that apply.

[ ]  Energy manager

[ ]  Facility manager

[ ]  Facility engineers or technicians

[ ]  Consultant/service contractor

[ ]  Business administrator

[ ]  Other 🡪 Describe:

1. Does the energy management team, or individuals who are responsible for improving energy efficiency, regularly meet to discuss the following? Check all that apply.

[ ]  Master planning

[ ]  New construction projects

[ ]  Major renovation projects

[ ]  HVAC system retrofits, upgrades, and/or replacements

[ ]  Building commissioning

[ ]  Energy monitoring and verification

[ ]  Operations and maintenance practices

[ ]  Other 🡪 Describe:

1. Does the energy management team measure the following non-energy benefits from energy efficiency improvement projects? Check all that apply.

[ ]  Fewer IAQ complaints

[ ]  Fewer comfort complaints

[ ]  Improve satisfaction from occupant survey

[ ]  Fewer student visits to health room for asthma-related issues

[ ]  Improve equipment reliability

[ ]  Improve resilience, such as by enabling building to remain operational during extreme events

[ ]  Other 🡪 Describe:

1. Please describe the approach used to measure non-energy benefits from energy efficiency improvement projects.

Describe:

1. Does your school district has a designated IAQ coordinator who is responsible to lead IAQ management activities?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. Does your school district have a leadership team to assist the IAQ coordinator and engage school administrators to support IAQ management activities?

[ ]  Yes

[ ]  No

[ ]  Not sure

1. Who are involved in the leadership team in support of IAQ management?

[ ]  Facilities personnel

[ ]  Superintendent

[ ]  School board

[ ]  School administrators

[ ]  Students

[ ]  Parents

[ ]  Teachers

[ ]  Union representatives

[ ]  Other 🡪 Describe:

1. Does your school district regularly communicate IAQ program’s intent, activities, and results with the community?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district regularly involve students, teachers, school staff, and the community in helping to maintain good indoor air quality?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

1. Does your school district routinely incorporate IAQ best practices as part of energy efficiency upgrades and building modernization projects?

[ ]  Yes 🡪 Describe:

[ ]  No

[ ]  Not sure

 *NOTE: Please consider sharing materials used by your schools to integrate energy efficiency and IAQ when performing upgrades and building modernization projects.*

1. Does your school district use the following approaches to incorporate IAQ best practices as part of energy efficiency upgrades and building modernization projects? Check all that apply.

[ ]  Gather feedback from school occupants on IAQ conditions as part of project planning

[ ]  Conduct walkthrough inspection to understand IAQ concerns

[ ]  Form a design and construction team that includes IAQ expertise

[ ]  Include school maintenance staff on the project team

[ ]  Include IAQ requirements in the project specifications

[ ]  Hold regular stakeholder meetings to gather feedback during construction

[ ]  Establish a formal process for responding to complaints during construction

[ ]  Include ongoing monitoring and verification of IAQ as part of the project

[ ]  Educate building occupants about actions they can take to protect IAQ in their schools

[ ]  Other 🡪 Describe:

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[ ]  Yes

[ ]  No

[ ]  Not sure