



The Key to the Castle, Who has it and do they know where the lock is?

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NESEA



Agenda

Why it matters
Intentions
National Standards
Training
Staffing & budget
Resources





What is the MFAAA?

- Not for profit professional organization supporting municipal and public K-12 school facilities directors throughout MA
- We help facilities professionals provide safer and healthier buildings for our kids.... What a life!!!

Northeast Energy Efficiency Partnerships



- Long-term shared goal
 - To assist the Northeast and Mid-Atlantic region in reducing carbon emissions 80% by 2050 (relative to 2001)
- Mission
 - Accelerate energy efficiency as an essential part of demand-side solutions that enable a sustainable regional energy system
- Vision
 - That the region embraces next generation energy efficiency as a core strategy to meet energy needs in a carbon-constrained world
- Approach
 - Overcome barriers and transform markets through *Collaboration, Education, and Enterprise*



About NEEP

A Regional Energy Efficiency Organization



One of six REEOs funded in-part by U.S. DOE
to support state and local efficiency policies and programs.

Does it
matter?





The Increased Scope of Education Facility Management

Education Facility Managers are so over programmed that a complete program is rarely delivered

70's,80's,90's,00's & Now

40's,50's & 60's

1. Custodial operations
2. Maintenance operations
3. Grounds operations
4. Electrical / gas utility
5. Pest control (in-house)
6. Playground equipment
7. Roofs
8. Safety – general
9. School closings
10. Vandalism

**Facility programs
have increased
dramatically but
many institutions
have smaller
leadership teams**

1. Custodial operations
2. Maintenance operations
3. Grounds operations
4. Electrical / gas utility
5. Playground equipment
6. Pest control (in-house)
7. Roofs
8. Safety – general
9. School closings
10. Vandalism
11. Mold management
12. Asbestos (AHERA)
13. Carbon Dioxide testing
14. Lead in water
15. Natural gas volume purchasing
16. Electrical volume purchasing
17. CAD
18. CMMS with preventive maintenance
19. Electromagnetic emissions
20. Emergency / disaster plans
21. Energy management systems
22. Energy education
23. Data based custodial schedules
24. Rentals, community usage
25. ADA
26. Owners Construction Rep.
27. Indoor Air Quality
28. Lead in paint
29. Integrated Pest Management
30. Privatized custodial
31. Purchased services management
32. Protective equipment & clothing
33. Radon Management
34. Recycle waste program
35. Re-locatable classrooms
36. Right to Know Act
37. Underground storage tanks
38. Computerization – technology support
39. Blood borne pathogens
40. Budget planning
41. Labor law issues
42. OSHA Logging & training
43. Custodial equipment management
44. Quality Assurance program
45. Hazardous Waste Removal
46. Emergency Backpacks
47. Building Backpack Supply
48. Defibrillator maintenance
49. Defibrillator training
50. Security systems
51. Green chemical management
52. Carbon footprint issues
53. Sustainability program
54. Life/Safety Planning
55. Playground management
56. Expanded athletic programs
57. Swimming pool maintenance
58. Indoor track & field
59. Fertilization & weed control
60. Artificial athletic fields

Why it also matters....



Health and
Safety....



Best intentions....

- Design philosophy
- Being active member of design or project team
- *Demanding delivery of what you need for successful operation*
- Design to maintain
- Sustainable

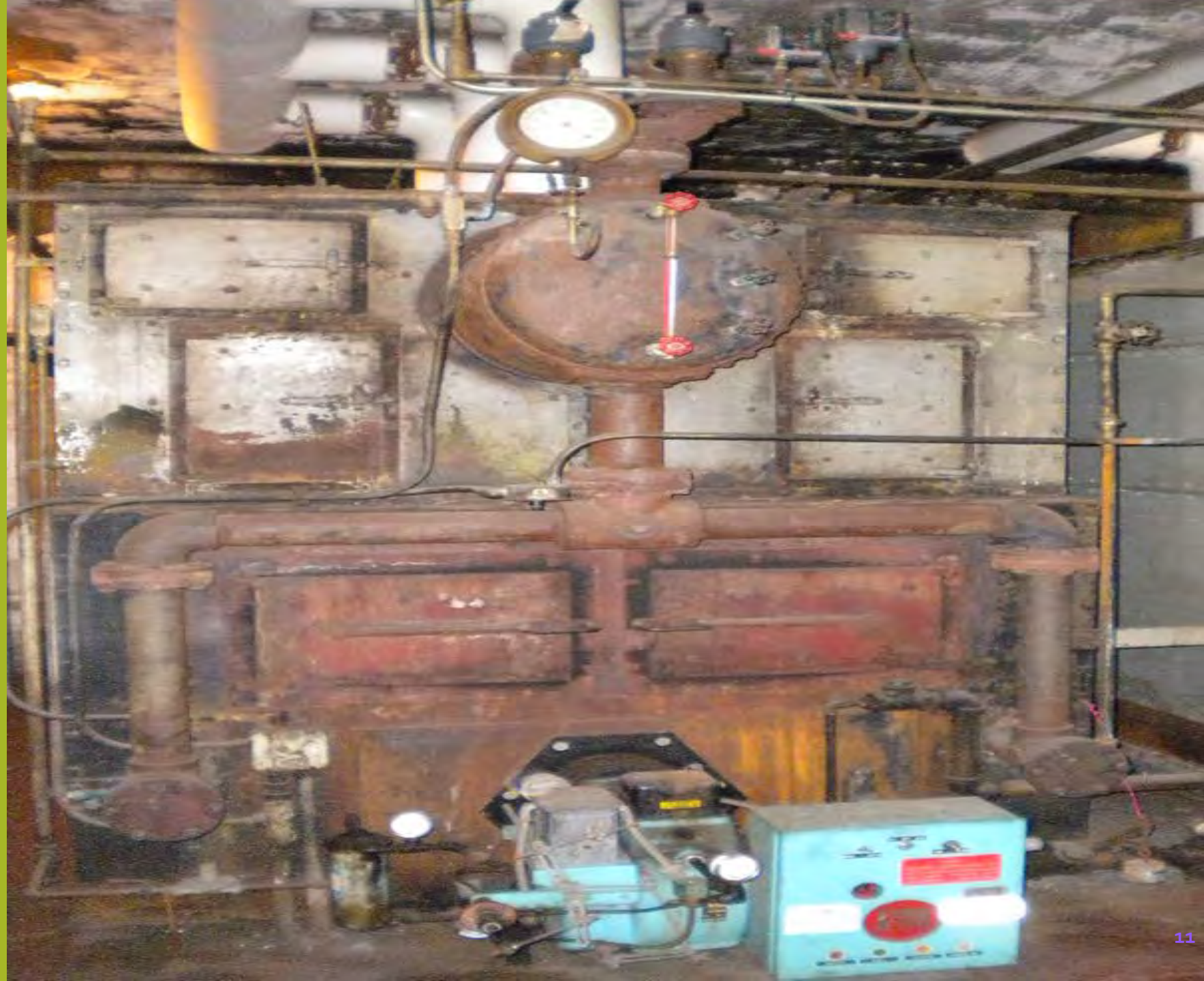


Three mayors, five superintendents, 30 city councilors, 20 School Committee members, 50 School Building Needs Commission members, three state treasurers, and three directors of the MSBA involved in building a new high school over the last decade

"What has it taken to get here? Blood, sweat, and tears"

Building Needs Commission Chairwoman Kathleen Amuso

Expectations
Existing Buildings



CORPORATE DILEMMA

WHAT IF WE TRAIN THEM AND THEY LEAVE?

WHAT IF WE DON'T... AND THEY STAY?



INVESTING IN EMPLOYEES

Setting the standard

National Accreditation



National Institute of BUILDING SCIENCES
An Authoritative Source of Innovative Solutions for the Built Environment



U.S. DEPARTMENT OF ENERGY
ENERGY

Better Buildings Fact Sheet
BETTER BUILDINGS WORKFORCE GUIDELINES

The U.S. Department of Energy (DOE) and the National Institute of Building Sciences (NIBS) have worked with industry stakeholders to develop the Better Buildings Workforce Guidelines (BBWG), voluntary national guidelines that will improve the quality and consistency of commercial building workforce credentials for four key energy-related jobs.

Improving Building Performance
Improving the operational performance of the nation's offices, schools, hospitals, and other commercial buildings offers significant energy savings. It also requires highly skilled and qualified workers, particularly as building technologies become more advanced. Through the Better Buildings Workforce Guidelines, industry now has a national framework from which to develop high-quality and nationally recognized training and certification programs, which helps address consistency, quality, and scalability issues in the commercial energy efficiency workforce.

DOE and NIBS have engaged the commercial buildings industry to establish the job-driven competency requirements for four commercial building, energy-related job titles. A fifth commercial building job title, the Federal Facility Manager, was approached with a focus on supporting DOE and General Services Administration (GSA) requirements under the Federal Buildings Personnel Training Act. Industry training and certification providers may opt to use the guidelines to upgrade or modify their programs or to develop new ones. Such providers can also expand on the core competency requirements established in the BBWG.

Better Credentials for a Better Workforce
The BBWG reduce the confusion and uncertainty around workforce credentialing.

- Credentials can now be built on a clear set of industry-developed guidelines.
- New and experienced professionals will better understand their training and certification options and can seize opportunities to improve their technical skills.
- Employers, building owners, government officials, and program administrators across the country can use the guidelines to identify skilled and qualified workers.

The National Institute of Building Sciences—a congressionally authorized nonprofit organization and respected building industry consensus—facilitated the guideline development process and formed an industry stakeholder group, the Commercial Workforce Credentialing Council (CWC), that leads development and implementation of the BBWG.

Industry groups receive the following benefits from the BBWG project:

- **Certification programs**—Recognized by DOE as accredited programs that meet high-quality industry guidelines.
- **Employers and building owners/managers**—Objective way to identify high-quality certification programs that train skilled and qualified workers.
- **Governments and utility programs**—Objective criteria for specifying workforce certification requirements for contracts on government buildings or for contractors participating in incentive or ratepayer-funded programs.
- **Workers**—Transparency in the training and certification market, clearer professional development pathways, increased skills and greater mobility.

Commercial Building Workforce Credentials	
Job Titles	Job Descriptions
Building Energy Auditor	The Commercial Building Energy Auditor is an energy solutions professional who assesses building systems and site conditions, audits and evaluates equipment and energy usage, and recommends strategies to optimize building resource use.
Building Commissioning Professional	The Building Commissioning Professional leads, plans, coordinates, and manages a commissioning team to implement commissioning processes in new and existing buildings.
Energy Manager	The Energy Manager is responsible for managing and continually improving energy performance in commercial buildings by establishing and maintaining an energy program management system that supports the mission and goals of the organization.
Building Operations Professional	The Building Operations Professional manages the maintenance and operation of building systems and installed equipment, and performs general maintenance to ensure the building's operability, optimize building performance, and ensure the comfort, productivity, and safety of the occupants.


Learn more at energy.gov/betterbuildings

U.S. DEPARTMENT OF ENERGY

Reduce the confusion and uncertainty around workforce credentialing; lower costs; and support better credentials

BETTER WORKERS AND BETTER BUILDINGS.

Training

A photograph of a training session in a modern meeting room. A group of approximately 15-20 people are seated around a large, light-colored conference table. In the background, a man stands near a whiteboard, likely presenting. The room features large windows, a projector, and a clock on the wall. A semi-transparent white box is overlaid on the center of the image, containing text.

**How much?
How Often?
Who needs it?
Outsource?**

What if you
don't train
them?




Sharon MS moisture problem Video

<https://www.youtube.com/watch?v=ERrztesGOMY>

If you
don't...



Staffing and budget considerations?

- 
- How big is the building ?
 - No fixed formula
 - Finishes used
 - Expectations for operations
 - Filters how often to change

HIGH PERFORMANCE COMMUNITIES

View Edit

NEEP is in the midst of assembling tools, trainings, and information sources that will improve overall understanding of energy efficiency best practices at the local level. Once assembled, NEEP will conduct a high performance information campaign to disseminate these resources, focusing on strategically selected municipalities. Currently these resources revolve around several opportunities:

Street Lighting

Street lights often account for 25 percent or more of a municipality's utility budget. Fortunately, recent technological advances have rendered traditional high pressure sodium (HPS) and metal halide (MH) high consumption dinosaurs. Light emitting diode (LED) street lights can provide better color quality at similar prices, but with twice the guaranteed lifespan, while using less than half of the energy. This translates to huge savings for municipalities; and NEEP can help guide stakeholders through the process. Resources:

- **Report-** LED Street Lighting Assessment and Strategies for the Northeast and Mid-Atlantic (January 2015)
- **Webinar Recording-** Webinar summarizing report, featuring City of Pittsburgh's conversion (March 2015)

Public Sector Benchmarking and Energy Data Access Opportunities

More than 40 percent of US commercial building space has been benchmarked using the US Environmental Protection Agency's ENERGY STAR Portfolio Manager. Yet, many states and municipalities seeking to track their energy data face unique barriers. To overcome these barriers, public sector entities can engage their utilities and seek streamlined data access options that would facilitate automated upload to Portfolio Manager, or a number of other different energy management suites. For information on exemplary municipal efforts for accessing and managing utility data and best practices to help steer municipalities on to a path towards effectively implementing energy management initiatives, see the [Public Sector Building Energy Benchmarking: Utility Data Access Options and Opportunities](#) report.

Building Operation and Maintenance Best Practices

Promoting Operations and Maintenance (O&M) best practices is an important part of NEEP's outreach and education efforts. Often characterized as a no-to-low cost opportunity, O&M procedures targeted at energy efficiency can save 5-20 percent on a building's energy bills. For more information on Building Operation and Maintenance, you can download the latest version of the [Operations and Maintenance Guide for Schools and Public Buildings](#) and its accompanying [one page summary](#).

Better Buildings Challenge

ENERGY EFFICIENT BUILDINGS

- Energy Codes -
- Energy Rating -
- Multifamily Retrofits
- [High Performance Communities](#)
- High Performance Public Buildings
- High Performance Schools -
- Zero Energy Buildings
- Green Real Estate Resources -
- High Efficiency Street Lighting

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RELATED BLOG POSTS



Street Lighting: The High-Up, Low-Hanging Fruit

View all blog posts

RESOURCES

Public Sector Building Energy Benchmarking: Utility Data Access Options and Opportunities

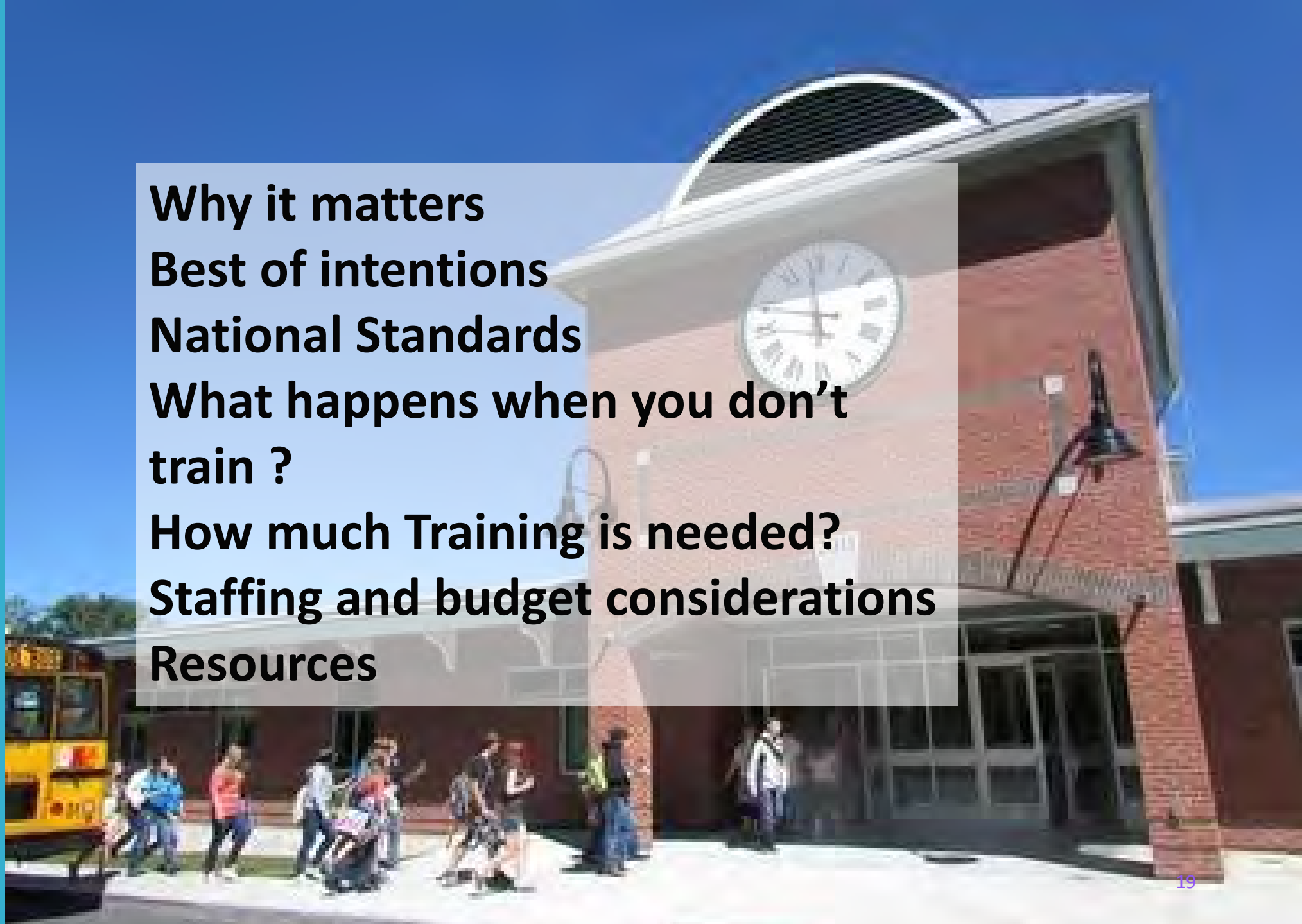
LED Street Lighting Conversion Webinar 3.12.15

BBBD 2015 Financing Panel 2.5.15

- Energy Codes
- O&M
- Benchmarking
- Data Access
- NE CHPS (High Performance Schools)
- Zero Energy
- Multifamily
- Streetlighting
- Exemplars
- Green Real Estate
- *And more!*

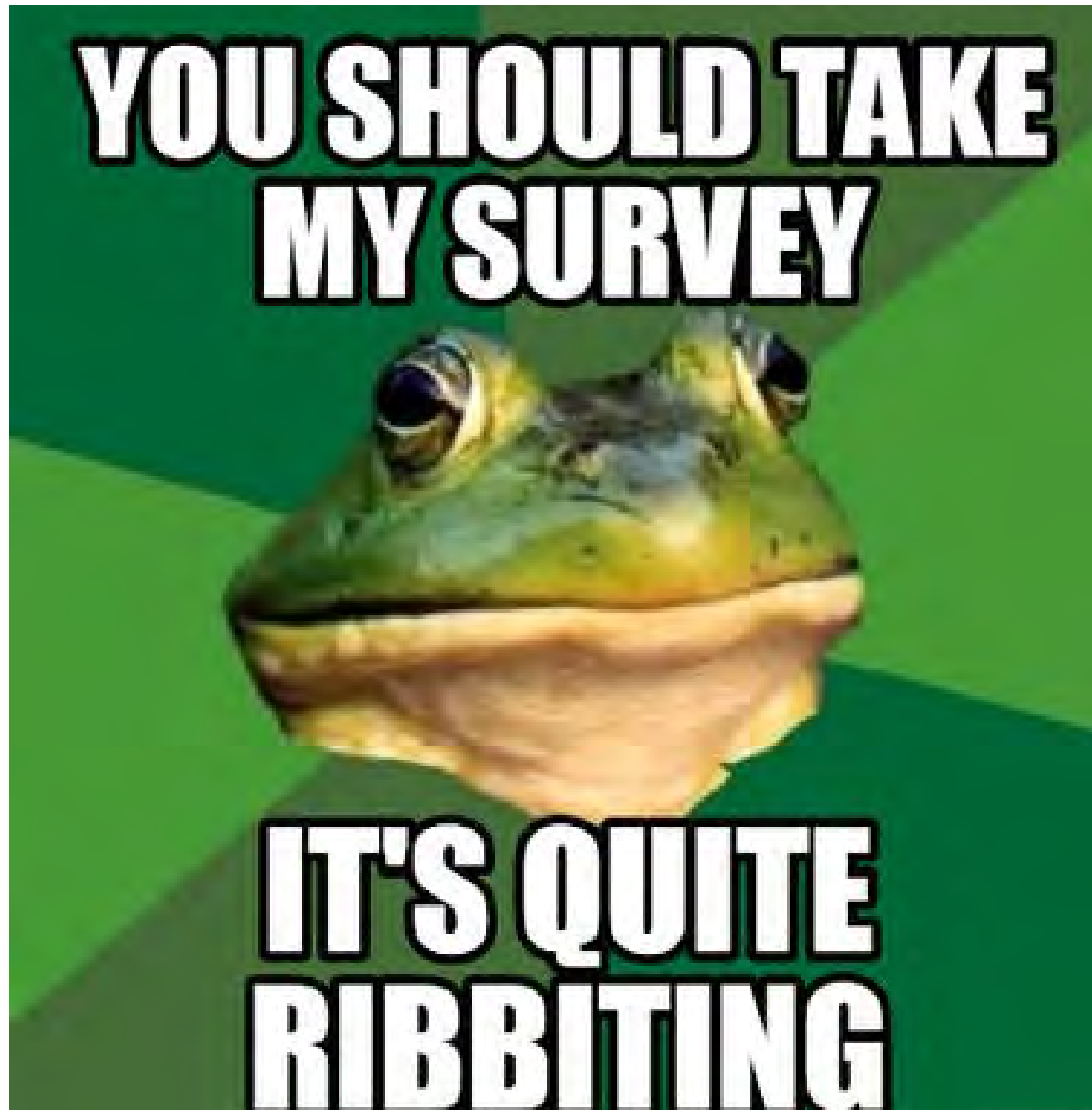
RECAP

Why it matters
Best of intentions
National Standards
What happens when you don't train ?
How much Training is needed?
Staffing and budget considerations
Resources



Feedback

- *Presentation*
- *NESEA Conference*
- *What do you know to know more about?*





THANK YOU!

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