

NE-CHPS 3.1

NORTHEAST COLLABORATIVE FOR HIGH PERFORMANCE SCHOOLS

The Northeast Collaborative for High Performance Schools Criteria (NE-CHPS) encourages the construction of schools that provide premium educational environments. It outlines a set of criteria for meeting state mandates and/or performance based incentive programs in new school construction and renovation.



Library at Profile School,
Bethlehem, NH Image: Lavallee Brensinger

NE-CHPS is:

- A **building criteria** based on policy requirements; indoor air quality standards; energy and water efficiency principles; renewable technologies; materials and innovation; and site selection considerations;
- Adapted to fit the **Northeast climate**;
- Incorporates all the features and benefits of **high performance school design**, such as:
 - Healthy indoor environment
 - Efficient use of energy
 - Thermal, visual and acoustical comfort
 - Ease of maintenance and operations
 - Cost effective by design.

WHAT'S NEW FOR NE-CHPS 3.1?

- Improved Acoustics Requirements
- Electric Vehicles
- zEPI Energy Scale
- Benchmarking
- Greater Occupant Engagement Focus
- Enhanced Commissioning of Building Systems
- District Level Commitment to Sustainability
- Crime Prevention through Environmental Design



Nathan Bishop Middle School in Providence, RI is a
NE-CHPS historical renovation

NEEP: a regional nonprofit organization committed to accelerating energy efficiency in the Northeast and Mid-Atlantic through public policy, program strategies, and education.

Northeast-CHPS is administered by Northeast Energy Efficiency Partnerships (NEEP). For more information, contact Carolyn Sarno Goldthwaite, at cgoldthwaite@neep.org 781-860-9177, ext. 119; or John Balfe at jbalf@neep.org 781-860-9177, ext. 109

NE-CHPS

Exemplar High Performing Schools



Claiborne Pell Elementary

Newport, Rhode Island

- \$116,855 projected annual energy savings
- 80% of demolition waste recycled
- 40% reduction in potable water usage



Keene Middle School

Keene, New Hampshire

- Woodchip heating Plant
- 30,000 gallon rainwater harvester
- Energy management system



Archie R. Cole Middle School

East Greenwich, Rhode Island

- \$182,000 projected annual energy savings
- Daylighting and occupancy sensors
- Control demand ventilation



Profile School

Bethlehem, New Hampshire

- 90% of classrooms do not need a/c
- 100% outside air ventilation indoors
- Exterior lighting "full-cutoff" option



East Bay MET School

Newport, Rhode Island

- Net zero energy usage
- 150kW photovoltaic system
- Geothermal heat pump



Merrimack Valley High School

Penacook, New Hampshire

- Recycling Program
- 61% energy cost savings
- Hydronic heating distribution system

Rhode Island

- 6 Schools Renovated/Designed
- Requires Northeast CHPS Criteria for all capital projects over \$500,000

New Hampshire

- 13 Schools Renovated/Designed
- 3% funding incentive drove school construction and renovation

NE-CHPS

Frequently Asked Questions

Does using NE-CHPS cost anything?

No. The NE-CHPS (pronounced *Northeast Chips*) criteria is available for download at no cost. We understand the fiscal constraints that many districts face and want the path toward high performance facilities to be as simple and cost-effective as possible. A district can choose to become CHPS verified, in which case, districts are granted access to a suite of resources provided by CHPS in exchange for a small subscription fee. In many cases, state agencies offer funding incentives for those schools who choose to pursue NE-CHPS verification.

Is a high performance school more expensive?

No. As a general rule, capital costs associated with a high performance school are comparable to that of a normal school. More importantly, high performance schools are designed to reduce operational costs through money-savings efficiency measures. In most cases, the investment in high performance lighting, HVAC, and cleaning systems more than pays for itself over the lifetime of a facility.

Can my existing school become a NE-CHPS school?

Yes. NE-CHPS can be applied to both new construction and major renovations of existing schools. If a district will not be undergoing major renovations but is still interested in exploring best practice recommendations for operations and maintenance, NEEP produces a companion Operations and Maintenance Guide for Schools and Public Buildings.

How will a high performance school help my students learn?

A high performance school can help your students learn in several ways. Studies have shown a causal connection between high performance learning environments and improved student test scores. Lighting quality, thermal comfort, indoor air quality, and background noise are all factors that may affect how building occupants feel and perform. Improvements in these factors can lead to improved student comprehension, fewer absences, greater teacher retention, and reduced risk liability.

I am a school administrator. Do I need to become a high performance school expert?

No. While NE-CHPS is written to be easily understood by decision-makers and building occupants, not everyone involved needs to understand the entire criteria. Many architects and engineers are already aware of NE-CHPS and can easily design your facility or renovation accordingly.

Does NE-CHPS compete with LEED for Schools?

NE-CHPS and LEED for schools are both excellent programs meant to encourage high performance environments within our schools. While the two standards contain some similarities, they are also distinctly different. When contemplating school construction or renovation, each district should consider which standard is the best match according to ease of certification, cost, flexibility, transparency, scope, educational priorities and climate sensitivity, to name a few.



Northeast Energy Efficiency Partnerships



Better buildings. Better students.

www.neep.org

Why Choose NE-CHPS as Your School's High Performance Standard?

1. Developed with input from regional stakeholders

- ◆ Developed with input from NEEP's Regional Leadership Group (RLG)
- ◆ RLG composed of architects, engineers, facilities managers, state energy officials, school district administrators, and school energy managers throughout the Northeast, including many from Massachusetts
- ◆ Several public comment and stakeholder engagement periods culminating in the April 8th release of NE-CHPS 3.0

2. Developed to fit the climate, building codes, and educational priorities of the Northeast

- ◆ Unlike nationally scoped programs, NE-CHPS specifically focuses on the Northeast
- ◆ Allows for inclusion of issues and opportunities specifically to the Northeast
- ◆ Considers the age of our region's building stock, allowing for specific provisions on major renovations and construction indoor air quality
- ◆ Focus on operations and maintenance guide includes guidelines for district facility managers; and a notable companion [Operations and Maintenance Guide for Schools and Public Buildings](#), which is also freely available and a highly useful tool for facility maintenance planning

3. Stresses Indoor Environmental Quality and Energy Efficient Design

- ◆ Contains 70+ pages discussing indoor environmental quality
 - ◆ According to the American Lung Association, asthma accounts for more than 14 million lost school days each year
 - ◆ Designing to NE-CHPS leads to significantly better Indoor Air Quality than baseline
 - ◆ Points awarded for:
 - ◆ Effectively designed and commissioned Heating, Ventilation and Air Conditioning systems, and HEPA filters
 - ◆ Paints, sealants, wood, and carpets that contain low volatile organic compound (VOC) counts.
 - ◆ Dedicated mechanical exhausts in areas of chemical use such as copy or print rooms
- ◆ Contains 40+ pages discussing energy efficient design options
 - ◆ Focuses on lowering operating costs through reduced fuel bills via simple solutions like high efficiency lighting, systems commissioning, daylighting, and more...