

Energy Management & Sustainability

Energy Programs

LED Lighting - UI Incentives

Program Overview

The facilities department will oversee the LED lighting upgrade project for several NHPS locations. These projects will be financed interest-free and will be paid through energy savings on the district's United Illuminating bill.

These schools will take advantage of the state funded Energize CT program designed to incentivize energy conservation efforts. The program is administered through the United Illuminating Co. for the New Haven area.

Goals: Financial, Visual and Environmental

- Reduce the carbon footprint of the district
- Drastically lower lighting utility bills
- Reduce lighting maintenance demands by eliminated fluorescent lighting
- Create a more inviting and aesthetically pleasing environment for staff and students
- Take advantage of generous utility incentives to maximize the return on investment

UI conservation and load management experts worked with the facilities department and NHPS to identify the best savings opportunities. Once a project is identified, UI prepares the Energy Opportunities (EO) letters of agreement which specify the entire scope of the project, and each and every fixture being installed to assure the project meets the parameters required for the program.

Once accepted by UI, the EO agreement letter specifies the annual savings and incentive amounts for the project. Upon project completion a final UI inspection of the school is performed to verify all the conservation measures and associated equipment has been installed consistent with the EO application. Then, and only then, UI issues payment to the third party installer.

Current Participating Schools:

Edgewood, Fair Haven, Mauro Sheridan, Wexler Grant, Cooperative Arts and Wilbur Cross.

Solar Panel - Greenskies Clean Energy Program

The Solar Panel program that NHPS participates in through Greenskies, the goal is to positively impact the communities in which we serve and the bottom line by installing solar array panels on the rooftop of select district schools.

The program utilizes a Power Purchasing Agreement (PPA), a solar installation dedicated to your school can save a significant amount of money even in the first year. That's money that can go right back into district budgets, and can be recycled to updates to your schools infrastructure.

Environmental Benefits

- 100% Renewable energy source
- Reduce carbon footprint
- Mitigate climate change

Social Benefits

- Highly visible commitment
- Boost employee morale
- Support of local economy

Governance Benefits

- Reduce compliance costs
- Energy independence
- Responsible energy sourcing

Current Participating Schools:

Benjamin Jepson, Brennan Rogers, Clinton Ave, East Rock, Family Academy of Multilingual Exploration (FAME), Hill Regional Career, James Hillhouse, John Martinez, Mauro Sheridan, Ross Woodward and Wilbur Cross.

Improving Energy Consumption in Schools

Fixing and replacing windows is one of the biggest issues that school buildings face. As the buildings get older, air starts to get through the cracks in the seals. This causes both air generated from air conditioning or heaters to escape. It then requires more energy to heat and cool the building. Keeping doors that lead outside closed is another simple way to ensure that a school building remains more energy efficient.

For schools that have a little bit of budget, replacing equipment is often the best way to improve the energy efficiency of the building. There are many great upgraded products, systems and equipment on the market that are much more energy efficient compared to old HVAC systems, heating pumps, and even office equipment models. Energy Star is a great resource in these circumstances, providing a lot of information on products and associated rebates that can really help to subsidize the cost.

Did you know?

- Buildings contribute to nearly 71% of electricity use in the United States, 12% of water use and 39% of CO2 production.
- K-12 school buildings in the U.S. use an average of 10 kWh of electricity and 50 cubic feet of natural gas per square foot annually.
- In 2008, a typical school district paid \$1.25/square foot annually for energy. A mid-sized school district with 800,000 square feet of space pays more than \$1 million dollars annually.
- Space heating, cooling, and lighting together account for nearly 70% of school total energy use. Plug loads constitute one of the top three electric energy end uses, after lighting and cooling.

Water Conservation

As children spend most of their day at school these programs in this setting can affect a child's water intake positively. In this section we discuss drinking water accessibility in schools and the regulatory framework that guides such access and recommendations to enhance drinking water access and intake in schools.

Healthy, Hunger-Free Act of 2010

Requires schools participating in the National Lunch Program to make free water available to students during meal times (breakfast and lunch) where they are served. In addition to the requirement, schools can use a variety of strategies to:

- Ensure that water fountains are clean and properly maintained.
- Provide access to water fountains, dispensers and hydration stations throughout the schools.
- Allow students to have water bottles in class or to go to the water stations if they need to drink water.

Water Bottle Refill Stations Initiative

It is the goal of the district to provide safe, reliable drinking water to schools within our district and ensure students, faculty and staff have access to safe drinking water to provide the hydration needed for learning activities throughout the day. We encourage the use of tap water to reduce plastic waste in our landfills and eliminate environmental costs of bottling/transporting packaged water.

NHPS has implemented a Water Bottle Filling Station Program that NHPS is participating in. The program has been established to assist and encourage schools that are serviced to adopt a more sustainable approach and provide students and staff access to safe, reliable and convenient drinking water to refill personal, refillable bottles.

Tips on Saving Water

- Bring a water bottle to school to avoid using a drinking fountain that can use more water than a person drinks.
- If using a drinking fountain, let go of the button/handle when pausing for a breath.
- If you see water coming from an unused faucet, turn it off.
- Avoid flushing the toilet unnecessarily.
- Encourage students to bring refillable water bottles to use, and educate them to pour leftover water onto plants.
- Report leaks of faucets and pipes, as soon as possible.