

TOWN OF ENFIELD

Honeywell Energy Performance Contract Energy Conservation Measures - Building Occupant Use Guide

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A. Energy Performance Contract Summary

The Town of Enfield engaged Honeywell International, Inc. in 2016 to assess and install energy savings measures and equipment in Town facilities and other town-owned assets. The project included town facility interior and exterior lighting and lighting controls, streetlight upgrades, boiler and pump replacement, a new heating ventilation and air conditioning system in the Central Library, building envelope (insulation) improvements, water conservation measures, computer and other electronic equipment energy savings equipment and piping insulation. Equipment installation and commissioning was completed in April 2018. This document is intended to assist Town staff with understanding and supporting the changes made to their workplaces to help ensure the Town realizes the energy use reductions and associated monetary savings targeted through this project. This summary is available on the Public Works web site under Special Notices at <https://www.enfield-ct.gov/306/Public-Works>. The following table provides a summary of measures completed by Town facility:

ESM No.	ESM Description	Emergency Medical Services	Enfield Senior Center	Pearl Street Library	Central Library	Lamagna Activity Center	Enfield Town Hall	Department of Public Works	Enfield Police Department	Adult Day Care	Family Resource Center	Building and Grounds	JFK Middle School	Eli Whitney School	Hazardville Memorial School	Henry Barnard School	Edgar Parkman School	Prudence Crandall School	Enfield Street School	Thomas Alcorn School	Harriet Beecher Stowe School	Head Start	Street Lighting
1	Lighting and Lighting Controls (LED)	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
2	Street Lighting Upgrades																						X
3	Boiler Replacements & Pump Upgrades				X		X			X				X			X		X				
4	Replace Multi-Zone AHU & Cooling System				X																		
5	Building Management System Upgrades		X		X	X	X	X		X	X			X	X	X	X	X	X	X	X	X	X
6	Building Envelope Improvements	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X
7	Water Conservation	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X
9	Desktop Computer Power Management	X	X	X	X	X	X	X		X	X	X		X	X	X	X	X	X	X	X	X	X
10	Computer Peripheral Power Management													X	X	X	X	X	X	X	X		
11	Plug Load Power Management													X	X	X	X	X	X	X	X		
12	Pipe Insulation			X		X	X							X		X	X	X	X	X	X		

B. Lighting and Lighting Occupancy Sensors

- Interior and exterior building lighting has been changed to Light Emitting Diode (LED) as shown on the attached Honeywell Project Summary.
- LED lighting comes in many styles, including tubes that look very similar to fluorescent.
- Interior wall and ceiling mounted occupancy sensors have been installed in many buildings. Lights will shut off after 15 minutes of no activity and turn on within a few seconds of activity.

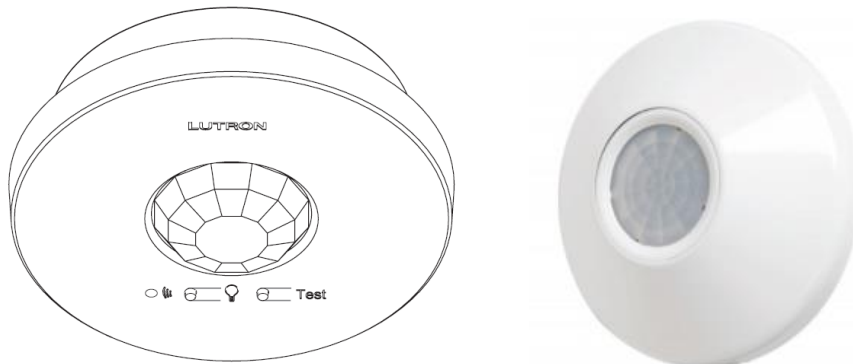
Typical wall mounted occupancy lighting sensor



Pressing button can manually override on or off function. Sensor will return to occupancy control after 15 minutes.

- You do not need to press the sensor button to turn lights on and off when entering and leaving a location. Lights should be sensor activated.

Typical ceiling mounted occupancy sensors



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- Please contact DPW Building & Grounds (E-mail Building & Grounds Service) to report any lighting problems.
 - Do not attempt to replace dead LED lights, especially with non-LED. Any defective LED lighting installed by Honeywell is covered under warranty and will be replaced by Building & Grounds.

C. Heating and Cooling Building Management System

- Heating/cooling temperatures and times of operation (setpoints) are controlled through a computerized Building Management System (BMS).
- Heating/cooling temperatures and operating time set points are intended to maximize personnel comfort while conserving energy. Operating times are building specific and based on reported normal occupancy hours.
- Temperature changes cannot be made manually.
- Setpoint adjustments have been made for portions of buildings that are frequently used outside of normal occupancy hours. Examples include Town Hall Council Chambers, and the Enfield and Thompsonville Rooms where evening activities are frequent.
- Please keep DPW Building & Grounds (E-mail Building & Grounds Service) updated on changes in building use and occupancy to ensure appropriate BMS adjustments.
- **Setpoint adjustment requires Building & Grounds authorization.** Building & Grounds can override BMS setpoints as requested for infrequent activities outside of normal occupancy hours.



D. Building Envelope Improvements

Weather stripping and caulking was replaced and/or installed on windows and personnel and overhead doors. Door sweeps were installed on door bottoms. Some doors in poor condition were repaired or replaced. Weather stripping was added around window air conditioners and roof penetrations (stacks) as needed. E-mail Building and Grounds Service to report any remaining significant drafts, leaks and doors or windows that do not close properly.

E. Water Conservation

Flow restrictors were installed on interior water faucets and showers, and leaking faucets and showers were repaired or replaced. Toilets and urinals were either retrofitted with flow restrictors or replaced with 1.6 gallon and 0.5 gallon/per flush equipment. E-mail Building and Grounds Service for any leaks or other problems with this equipment.

F. Desktop Computer Power Management

Network software was installed on approximately 1,300 Town/BOE desktop computers to automatically set low-power states on desktop computers after normal occupancy hours. Users do not need to shut down or turn computers back on. Instead, the computer is turned back on with a single touch of any keyboard key. This system does not interfere with security updates, software upgrades and patch management. Operation should be transparent to users. Please contact IT at ITHelp@enfield.org with questions or problems.

G. Computer Peripheral Power Management – “Smart Strips”

“Smart” power strips are installed at the middle and elementary schools. These are designed to prevent laptops, tablets, desk top computers, monitors, printers and other electrical devices from drawing energy during periods of inactivity. These devices also automatically shut off power draw once the last battery operated device on the circuit is fully charged. This operation not only reduces energy consumption but prevents battery deterioration from overcharging. Finally, these devices also serve as surge protectors.

Please check for proper operation as indicated by the red power light on the left side of the strip. The strips are equipped with the following color-coded outlets:

- (1) Blue Outlet – Control outlet (auto shutoff for inactivity and controls power to green outlets);
- (2) Red Outlets – Power always on;
- (4) Green Outlets – Power automatically turns off when blue outlet shuts off during inactivity.

Power Switch - This **LIGHTED SWITCH** is also a 15 amp circuit breaker. It is normally left on. If it's not lit, turn it on, reset it or try a different outlet.

Ground & Surge Indicator - When this is lit, your equipment is protected. If it's not, it might be:

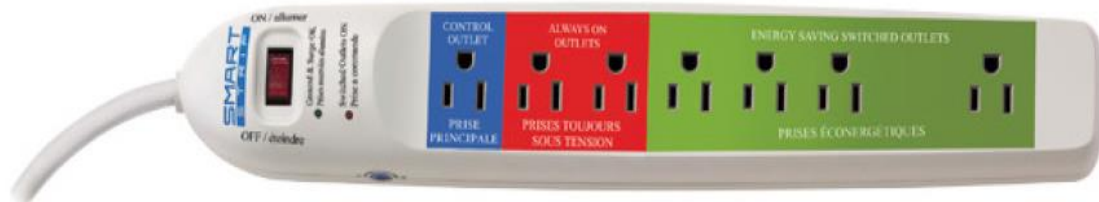
1. A bad or unavailable ground, use another outlet.
2. The surge protection has failed; check <http://bitstld.net/FAQ> or call us.

Control Outlet - Plug your TV or computer here. This outlet controls the **SWITCHED OUTLETS**; if the device plugged in here is on, they are on. If off, they are off.

Constant Hot Outlets - Plug your Cable box, satellite receiver, DVR, fax or cable modem here. These outlets will only turn off with the power switch.

Automatically Switched Outlets - Plug in all of your other accessories here. These will turn on or off with the device plugged in the **CONTROL OUTLET** automatically. So when the device in the control outlet is off, everything here is unplugged & saving you energy.

The SCG3 Energy Saving Smart Strip



Seven outlets work together, autoswitching your devices on/off automatically, to save you money on your electric bills. 900 joules of surge protection keep your equipment safe from even the harshest power spikes. Conveniently-spaced outlets and a 45-degree, angled space saver plug make the Smart Strip a friendly addition to your electronic systems.

SCG3 Specs

Total # Of Outlets:	7 Outlets Total; 1 'Control Outlet' 2 'Constant Hot Outlets' 4 'Automatically Switched Outlets'
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H. Plug Load Management – BERT © Plugs

Bert © Plugs are Wi-Fi programmable timers used to automatically turn off power to window air conditioners, smart boards, TVs and similar equipment after normal building occupancy. Over 150 Bert plug load controllers were installed at the middle and elementary schools, primarily to ensure that window air conditioning units are shut off during unoccupied periods. The on-off timing is remotely set and controlled.

Please make sure Bert © plugs installed in your work areas remain plugged in and operational as indicated by the green light on the top of the plug. Contact Building & Ground Service for any Bert © Plug problems or to request additional plugs.



Bert© Power Controller

By pressing the power button on the top of the BERT-1000

The plugged load device can be powered on by pressing the load device power button for 5 seconds. Pressing this load device ON button doesn't interfere with the Bert-110 unit's preloaded ON/OFF cycle schedule, i.e. the BERT-110 will commence an ON or OFF command at its next scheduled time.



We rely on you, the Town staff, to be our eyes and ears in ensuring that the measures described above remain in place and working as intended. Please contact Building & Grounds Service with any questions. We appreciate your cooperation in helping the Town save energy and money!