

WHAT DOES IT TAKE TO SAVE?

Greenworks Philadelphia sets ambitious goals to incorporate energy efficiency and sustainability principles into City-owned facilities. The **Mayor's Office of Sustainability (MOS)**, the **Mayor's Office for Transportation and Utilities (MOTU)**, the **Energy Efficiency Building Hub (EEB Hub)** and the **Philadelphia Energy Authority (PEA)** are working together to offer a variety of services focused on reducing energy use in City owned facilities. The information in this brochure is a useful starting point, but represents only a handful of the many ideas and solutions available.

ENERGY EFFICIENCY FUND

In the last several years, MOS has provided competitive funding to City departments through its Energy Efficiency Fund. This program fully or partially supports projects that pay for themselves through energy savings in less than seven years.

TECHNICAL ASSISTANCE ON ENERGY EFFICIENCY

MOS has a consultant available, Practical Energy Solutions (PES), who specializes in energy efficiency. PES can help City departments and agencies perform energy audits and review capital projects for further inclusion of energy conservation measures. The EEB Hub is also available to provide technical guidance on projects or planning.

HISTORICAL ENERGY USE & BENCHMARKING

MOS and MOTU now have energy use and cost information in a web-based application based on the City's utility bills. Monthly energy reports provide departments with regular data on consumption, but this is a small portion of the data available. More detailed information is available on request. Additionally, all City buildings over 10,000 sq. ft. have been benchmarked with ENERGY STAR's Portfolio Manager. Using both of these resources departments can easily identify the facilities that are the most costly and least efficient.

BEST PRACTICES FOR MANAGING PLUGLOADS

- 1. REVIEW.** Identify your needs, inventory your equipment and focus on the devices that use the most energy.
- 2. REMOVE.** Eliminate or unplug unnecessary devices.
- 3. REPLACE.** When it's time to replace, purchase the most energy-efficient devices.
- 4. REDUCE.** Turn it off or power it down when not in use.
- 5. RETRAIN.** Engage EVERYONE. Make sure they understand why, when and how to power down.

LOW-COST AND NO-COST ENERGY CONSERVATION MEASURES REDUCED PLUG LOAD ENERGY USE BY 40%



FOR MORE INFORMATION PLEASE CONTACT

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ENERGY EFFICIENCY INCENTIVE PROGRAM

REDUCING WASTE & REWARDING ACTION

PILOT PROGRAM



PROGRAM BASICS

GOALS

1. Raise awareness around energy conservation
2. Reward departments that lower their energy consumption
3. Respond to requests from departments for energy conservation incentives
4. Save the City money

PILOT

Departments

Parks & Recreation
Health
Public Property
Police
Fire

Energy Sources Tracked: Electricity
Pilot launch: July 2013
Full Program Launch: July 2014

INFORMATION

In addition to Monthly Energy Reports departments will receive a mid-term report and yearly report (at the end of the fiscal year) on program performance by facility.

Departments should use MOS and MOTU as resources throughout the program for further information and to discuss conservation opportunities.



[HOW TO GET TO 30% BY 2015]

LOW & NO-COST ENERGY CONSERVATION MEASURES

HVAC and Building Controls Systems

1. Maintain temperature set points and ensure buildings are setting back temperatures and cycling or turning off fans during unoccupied modes.
2. Perform regular preventative maintenance on major equipment (particularly chillers and motors).
3. Regularly replace HVAC filters and clean the condenser coils.
4. Check the economizer. An economizer stuck in the fully open position can allow hot air in during the summer and cold air in during the winter.
5. Stage multiple chillers in order of their efficiency, from highest to lowest. Only use the more inefficient equipment when absolutely necessary.

HEATING & COOLING IS USUALLY THE LARGEST CONTRIBUTOR TO ENERGY CONSUMPTION IN ANY FACILITY

Lighting

1. Switch from incandescent bulbs to CLFs or LED bulbs. De-lamp fluorescent lighting to lower wattage T8 bulbs, T5 bulbs or LEDs.
2. Turn off lights when not in use and consider using task lighting rather than overhead lights when appropriate.
3. Install occupancy sensors that automatically turn lights on when someone enters a room, and shuts them off when the room is empty.
4. Try to dim hallway lighting by 30% during the daytime to reduce demand charges and energy consumption.

LIGHTING CAN ACCOUNT FOR AS MUCH AS 50% OF A FACILITY'S ENERGY COSTS

Building Envelope

1. Keep windows and doors shut when heat or air conditioning is in use. Seal air leaks around windows, doors, and other areas.
2. Raise blinds to take advantage of the sun's warmth in the winter and close them in the summer to keep out the heat.