Can CHP Reduce Your Building’s Annual Energy Costs?

A Combined Heat and Power (CHP) system can significantly lower a Housing Authority’s annual energy costs and reduce their volatility. Instead of buying all of the building’s electricity from a utility company and separately purchasing fuel for its heating (mechanical) equipment, most--or even all--of the electricity and heat can be produced for less money by a small on-site gas-fired power plant operating at 70-80 percent combined efficiency in contrast to a utility’s 45-50 percent. CHP can also help relieve electric grid congestion and can improve the environment by reducing emissions. It works best for multifamily buildings with at least 80 units that are metered for utilities.

To assess the feasibility for installing CHP in a residential building, information must be collected about the building size, occupants, equipment, monthly fuel consumption, costs and rates, layout and location of electricity feeds and meters, etc.

The US Department of Housing and Urban Development (HUD) is trying to assist PHAs in assessing the potential for CHP installations in multi-family buildings. HUD makes available a computer software tool that enables PHAs to do an initial screening of the cost, savings and payback. With twelve months of utility data, it will roughly calculate the potential return on investment for installing CHP. It can also calculate a theoretical payback for a system if you enter only utility rates, location, square footage and number of occupants.

The initial screening analysis will let building operators know whether CHP could provide energy cost savings. Positive results during this initial assessment are only a prelude to a more rigorous analysis to be performed by engineers using more detailed information on building heating and electricity loads and CHP equipment. At each stage, the PHA decides whether it is worthwhile to proceed to a more detailed analysis. Two CHP software tools that enable PHAs to do an initial screening of the cost, savings and payback.

Help Housing Authority Maintenance Staff Reduce the Risk of Mercury Spills

Mercury can be found in various residential products that may have been installed in older buildings or used in appliances. Products that may contain mercury include thermostats, electric and gas appliances, many types of switches, heating and cooling systems and light bulbs. Residents and maintenance staff should be informed of the dangers of mercury poisoning and should be educated in the safe storage, removal and recycling of mercury-containing products. Mercury is a neurotoxin and even short-term exposure to high levels of metallic mercury vapors may cause effects including lung damage, nausea, vomiting, diarrhea, increases in blood pressure or heart rate, skin rashes, and eye irritation. Long term exposure can cause damage to the brain, kidneys, liver and heart.

When a mercury-containing product breaks and the mercury is spilled, the exposed mercury can evaporate and become an invisible, odorless toxic vapor. Some of these products such as mercury-containing thermometers can break easily and spill mercury. To prevent mercury releases, these products should be used and stored safely by maintenance personnel and service technicians.

These products should also be removed and managed properly at the end of their useful lives. Most states and localities have household hazardous waste collection and exchange programs for mercury-containing devices. The Environmental Protection Agency’s (EPA) product list includes recommended tips for safe end-of-life management to prevent mercury releases.

If a spill occurs the Northeast Waste Management Official’s Association has published “Instructions for Cleaning Up “Small” Liquid Mercury Spills in Households”. Residents and maintenance personnel should be made aware of these instructions in case of a small spill.
TIPS TO REDUCE UTILITY BILLS THIS WINTER

1. Sealing air leaks and drafts around windows and doors with caulk, spray foam, or weather stripping will have a great impact on improving your comfort and reducing utility bills.

2. Save about 3% on heating costs for each degree you lower your thermostat. Use a programmable thermostat to reduce the temperature at night and when you’re at work.

3. This valuable training prepares people for good-paying jobs in the energy conservation field. The program was organized by the BHA, Siemens Building Technologies and Greater Bridgeport Community Enterprises (The Green Team). Graduates will perform energy conserving tasks such as weather-stripping and caulking doors and windows in BHA properties.

Additionally, the BHA will encourage individuals who participated in the program to create new energy conservation businesses through a new resident-operated business program to support new business development.

For additional information please contact Adrienne Farrar Houel at ahouel@aol.com or Peggy Jean at pjean@bridgeporthousing.org.

ENERGY STAR HOLIDAY GIFTS

Using ENERGY STAR products can save the typical household more than 30% on energy bills. Over the lifetime of ENERGY STAR products, a household can save more than $10,000 in energy costs. Giving ENERGY STAR gifts is a great way to help your friends and family to fight global warming while saving money.

If home electronics, office products, power tools or appliances are on your gift giving list, choosing ENERGY STAR products enables you to give energy efficiency while giving back to the environment.

ENERGY STAR qualified TV’s use up to 30% less energy, than standard models, while in use. They also use less energy in the standby mode. You can find the ENERGY STAR label on many office products such as computers, monitors, fax machines, printers and copiers. Also, look for gifts such as cell phones, cameras, MP3 players and power tools that come with ENERGY STAR external power adapters or battery chargers. The most energy efficient appliances such as clothes washers, dishwashers, refrigerators also carry the ENERGY STAR label.

The Environmental Protection Agency (EPA) also offers free literature explaining how purchasing ENERGY STAR labeled products helps the environment.

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