



## Public Housing Energy Conservation Clearinghouse News

February 2005

This monthly e-mail update is brought to you by HUD's Public Housing Energy Conservation Clearinghouse (PHECC). It features news and resources to help public housing authorities manage energy and water costs. To see past issues of this newsletter, and to access more information and tools for public housing authorities, visit the Public Housing Energy Conservation Clearinghouse Website at <http://www.hud.gov/offices/pih/programs/ph/phecc/>.

### News:

- PIH Energy Goals Support HUD's Energy Action Plan
- American Council for an Energy-Efficient Economy (ACEEE) Announces Report on Energy-Saving Technologies
- Surgeon General Renews Radon Warning

### Events:

- Energy Auditing Fundamentals Online Seminar. March 14-15, 2005. *Develop an understanding of the fundamentals of completing and reviewing energy audits.*
- Five-Day Intensive Energy Performance Contracting Course. April 4-8, 2005. *Learn about energy performance contracting through role-playing and case studies.*

### Success Stories:

- The Boston Housing Authority Partners with Ameresco for Water and Energy Conservation Project. Yearly Savings Expected to Exceed \$5 Million.

### Technology Focus:

- Tankless Water Heaters

**ENERGY STAR® in Focus:** HUD PIH Seeks Feedback on ENERGY STAR Bulk Purchasing Activities

**Tip of the Month:** Energy Audits



### NEWS

#### **PIH Energy Goals Support HUD's Energy Action Plan**

HUD has developed an Energy Action Plan to improve energy efficiency and energy conservation in HUD-assisted rental housing. The goal is to reduce public housing energy bills by as much as \$200 million a year while maintaining comfort and safety. PIH has developed five Management Plan goals for FY 2005 to support the Energy Action Plan. Read the five Management Plan goals at <http://www.hud.gov/offices/pih/programs/ph/phecc/resources/egoals.cfm>.

To ensure compliance, field offices may contact PHAs as necessary to discuss and investigate these goal accomplishments and audits, energy performance contracts, and utility allowance reviews.

#### **American Council for an Energy-Efficient Economy (ACEEE) Announces Report on Energy-Saving Technologies**

In December, ACEEE announced the publication of a new report, Emerging Energy-Saving Technologies and Practices in the Buildings Sector as of 2004. Of the 66 measures described in the report, the most attractive candidates include two distribution system improvements (leakproof ducts and duct sealing) and retrocommissioning. Retrocommissioning helps agencies identify and implement operational and maintenance improvements in existing buildings. These measures show particularly high energy-savings potential and are also very cost-effective.

Download the report at <http://www.aceee.org/store/proddetail.cfm?ItemID=381&CategoryID=7>.

#### **Surgeon General Renews Radon Warning**

U.S. Surgeon General Richard H. Carmona warned the American public about the risks of breathing indoor radon by issuing a national health advisory on January 13 at the Surgeon General's Workshop on Healthy Indoor Environment.

According to the U.S. Environmental Protection Agency (EPA), one in every 15 homes nationwide has radon at or above the recommended radon action level. Indoor radon is the second-leading cause of lung cancer in the United States.

“Based on national averages, we can expect that many of the homes owned or financed by federal government programs would have potentially elevated radon levels,” said Edwin Piñero of the Office of the Federal Environmental Executive (OFEE).

Radon is an invisible, odorless and tasteless gas that produces no immediate health symptoms. Simple test kits can reveal the amount of radon in any building. Those with high levels can be fixed with simple and affordable venting techniques.

For more information about radon, visit <http://www.epa.gov/radon>, call your state radon office, or call a national toll-free hotline at 1-800-SOS-RADON (1-800-767-7236).

To read the Surgeon General's full press release, visit <http://www.surgeongeneral.gov/pressreleases/sg01132005.html>.



## EVENTS

### **Energy Auditing Fundamentals**

March 14-15, 2005

*Online Seminar*

This online seminar covers all the fundamental components of a complete energy audit, including pre-audit work, the site visit phase, and effectively presenting the audit report to end users. This course is designed not only to educate those professionals conducting audits, but also to inform end users of what they should expect of an audit. The seminar is conducted in two, two-hour sessions. For more information and to register, visit <http://www.aeecenter.org/realtime/EnergyAuditing/>.

### **Five-Day Intensive Energy Performance Contracting Course**

April 4-8 and Sept 26-30, 2005

*Chicago, IL*

Energy Performance Contracting (EPC) is one of the few vehicles Public Housing Agencies can use to generate revenue for their operations, in addition to lowering energy costs and making homes more comfortable. This course uses instruction, role-playing, and case studies to give participants the tools to implement EPC in their own agencies. For more information and to register, visit <http://128.248.232.70/glakes/ce/courseDetail.asp?GID=277>. Class size is limited.



## SUCCESS STORIES

### **The Boston Housing Authority Partners with Ameresco for Water and Energy Conservation Project. Yearly Savings Expected to Exceed \$5 Million.**

The Boston Housing Authority (BHA) has announced a partnership with Citizens Conservation Services, an Ameresco company, to maximize savings through integrated water and energy conservation improvements and health upgrades. The project will affect about 5,000 apartments in 15 developments throughout Boston and is expected to yield more than \$5 million a year in energy savings.

Upgrades will include consolidating electric meters; installing energy-efficient lighting; converting electric heat to gas; upgrading or replacing old central heating plants; installing co-generation and renewable energy systems; and replacing water closets, showerheads and faucet aerators. Measures such as adding or improving apartment exhaust systems and installing dryer vents will improve living conditions for residents. An extensive resident education, training, and employment program will reinforce the program.

Over 12 years, it is expected that \$60 million in savings will cover the cost of the upgrades.

In 2000, BHA used two energy performance contracts that saved the Authority more than \$16 million.

For further information, visit <http://www.bostonhousing.org/detpages/press40.html>.

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## TECHNOLOGY FOCUS

### **Tankless Water Heaters**

Tankless water heaters provide hot water on demand without storage. Since they don't have to heat standby water sitting in a tank, tankless water heaters are also very efficient. This technology can reduce water-heating bills by ten to twenty percent. Water heating accounts for about 14 percent of the average U.S. household energy budget, so savings from tankless water heating can be significant.

Large units intended for whole-house consumption are located centrally while, in point-of-use applications, the water heater usually sits under a sink. Point-of-use water heaters can provide hot water instantly at remote points with no water wasted.

Gas tankless water heaters typically have larger capacities than electric tankless water heaters. Tankless gas water heaters always require venting and generally require a power vent. In most cases, electric tankless water heaters will cost more to operate than gas tankless water heaters, but require no venting.

Equipment life may be about five to ten years longer than tank-type heaters because tankless heaters are less subject to corrosion.

Tankless water heaters range from \$200 for a small under-the-sink unit up to \$1,000 for a gas-fired unit that delivers 5 gallons per minute. Although tankless water heaters are more expensive than tank-type heaters, the life cycle cost of tankless heaters in single-family applications is less because of their greater energy efficiency and longer life.

For more information, visit

<http://www.toolbase.org/tertiaryT.asp?TrackID=&CategoryID=1402&DocumentID=2138>.

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**ENERGY STAR® IN FOCUS**

CHANGE FOR THE  
BETTER WITH  
ENERGY STAR

### **HUD PIH Seeks Feedback on ENERGY STAR Bulk Purchasing Activities**

The ENERGY STAR Bulk Purchasing for HUD Website (<http://www.bulkpurchasetemp.com/>) has been developed to help public housing authorities, managers of assisted housing, and other HUD grantees cost-effectively procure energy-efficient products.

HUD PIH is seeking your feedback on the usefulness of the site. We would also like to learn more about your experiences with bulk purchasing. Please send your replies to the following questions to [pheccinfo@drintl.com](mailto:pheccinfo@drintl.com) by March 15, 2005.

- Do you expect that you would use this site? If so, frequently or infrequently.
  - Would it be helpful if this site included lighting?
  - Does your agency bulk purchase appliances or lighting for your buildings? If so, are these purchases mainly for existing buildings or for new construction projects?
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**TIP OF THE MONTH**

## **Energy Audits**

Before spending money on materials and equipment, it is important to identify the energy-efficiency strategies that are most cost effective in a specific situation. An energy audit is a good way to gather this information.

### ***Sample RFP***

Use this recent sample Housing Authority Energy and Water Audit Request for Proposals (RFP), developed by ABT Associates, as a guide for writing RFPs for your agency. View the sample at <http://www.hud.gov/offices/pih/programs/ph/phecc/resources/auditprotocol.pdf>.

### ***What to Look for in an Energy Audit***

To get the best results, you want your energy audit to be comprehensive. Some auditors only examine lighting and water conservation measures. A proper audit will look at everything that can effect energy and water use.

Ask your auditor to complete these three tasks:

1. Conduct an energy audit walk-through survey. The HUD Energy Audit is contained in Chapters 4 & 5 of “Energy Conservation for Housing - A Workbook,” located at <http://www.abtassoc.com/reports/D19980034.pdf>.
2. Based on that survey, develop a list of potential energy conservation measures (ECMs).
3. Analyze each measure or group of ECMs for cost-effectiveness and develop a final itemized and prioritized list of recommended measures based on their cost, payback, and safety.

Chapter 7 of the workbook discusses most ECMs and provides worksheets to develop costs and benefits for each measure. Most auditors will have their own computerized cost/benefit/ranking software, but you can spot check an auditor's calculations by using these worksheets.

### ***Learn More***

To learn more about energy audits, visit HUD’s Website on energy audits at <http://www.hud.gov/offices/cpd/affordablehousing/training/energy/help/audits.cfm>.



## **WEBSITES WORTH A CLICK**

## **Handbook for Improving New Home Efficiency in the Hot and Humid Climate**

This Building America best practices handbook helps builders develop durable, comfortable homes that

achieve 30% energy savings in space conditioning and water heating in hot and humid climates. The handbook contains chapters for every member of the builder's team, from managers to site planners.

View the handbook at

[http://www.eere.energy.gov/buildings/building\\_america/hot\\_humid\\_best\\_practices.html](http://www.eere.energy.gov/buildings/building_america/hot_humid_best_practices.html).

### **PATH Tech Set: Resource-Efficient Plumbing**

While adopting just one or two technologies can reap great benefits, some innovative technologies deliver maximum performance when used together. With this integrated approach in mind, HUD's Partnership for Advancing Technology in Housing (PATH) released its first "Tech Set" this January, focusing on resource-efficient plumbing. Used together, the technologies in the Tech Sets will decrease the cost of construction, maintenance, and energy and water use in housing. View the Tech Set at <http://www.pathnet.org/sp.asp?id=13675>.

The plumbing Tech Set features home run plumbing systems, tankless water heaters, air admittance vents, greywater reuse piping, and low-flow fixtures. Look for the release of PATH's second Tech Set in April on <http://www.pathnet.org>.

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