



## Public Housing Energy Conservation Clearinghouse News November 2003

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/>.

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- 26<sup>th</sup> World Energy Engineering Congress. November 12-14. *Learn about "real world" solutions for reducing energy costs and improving overall performance in your properties!*
- Capital Fund Program Seminar. December 1-2. *Learn about the new formula-based program in the Public Housing Reform Act to fund capital improvements in your properties!*
- Lighting Education Online. *Learn more about lighting technology through this interactive, Internet-based education program!*

#### Success Stories:

- Wooster Manor Public Housing, Danbury, CT—Successful use of combined heat and power (CHP) system in public housing
- Summit Plaza Complex, Jersey City, NJ—A pioneer CHP project saves 160,000 gallons of fuel oil annually, even after nearly three decades!
- Keene, Somersworth Housing Authorities, New Hampshire—Combined energy efficiency project illustrates the benefits of aggregation

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## NEWS



### **Waste Not, Want Not: Multifamily Housing a Good Application for Combined Heat and Power (CHP) Technology**

In many instances, power generation means a lot of wasted heat. In fact, according to EPA, “the average efficiency of the fossil-fueled power plants in the U.S. is 33% and has remained virtually unchanged for 40 years. This means that two-thirds of the energy in the fuel is lost as heat.”

But **combined heat and power (CHP) systems**—integrated systems that use waste heat from power generation equipment to heat and cool—offer efficiencies as high as 80% using both the heat and power from the same fuel. According to **Robert Groberg**, Energy Division Director of HUD's Office of Community Planning and Development, CHP systems make sense for multifamily housing, offering a number of benefits including energy efficiency gains and cost savings. And, says Mr. Groberg, capital funds can come from HUD grants, a loan, or a HUD-approved performance contract.

As part of the 2002 Energy Action Plan, HUD and DOE have committed to promoting CHP in multifamily housing and to double the overall use of CHP by 2010. And the technology is working successfully in public housing (see Success Stories below).

Can CHP work in your housing authority? Mr. Groberg's online PowerPoint presentation, prepared for the recent USCHPA 4th National Roadmap Workshop in Chicago, provides more information the conditions for successful installation and use, as well as resources available from DOE, EPA, and other sources. See the presentation at <http://www.hud.gov/offices/cpd/energyenviron/energy/>, under What's New.

Also see DOE's Combined Heat and Power website, which includes success stories, a Technology Primer, and more, at [http://www.eere.energy.gov/der/combined\\_heat\\_power.html](http://www.eere.energy.gov/der/combined_heat_power.html)



### **Yea or Nay? Vote on Energy Bill Stalled**

Hopes of bringing the Energy Bill to conference vote last week were dashed as Republicans were unable to finalize a \$16 billion package of tax credits and incentives in the legislation, congressional sources said. Disagreement among negotiators relates to the tax package's incentives to build an Alaskan natural gas pipeline and provide a fuel tax break for ethanol-blended gasoline. Sources say a final version of the bill could be ready for vote by the end of the month. Read more at <http://www.alertnet.org/thenews/newsdesk/N19355662.htm>.

Want more information? The American Council for an Energy-Efficient Economy website explains the current status of the national energy legislation, and offers an analysis of energy-efficiency savings for both the House and Senate energy bills. For more information, see <http://aceee.org/energy/nrglegistatus.htm>.



### **Up, Up and Away: Natural Gas Prices Continue to Rise**

Continuing tight supplies are keeping natural gas prices high and, say economists, little relief is in sight. High prices will have a serious impact on consumers, particularly the low-income, as the heating season begins. According to DOE's Energy Information Administration (EIA), high natural gas prices will continue into winter and are expected to be about 9 percent higher than last winter's average prices. On a brighter note, EIA predicts almost no change in heating oil and propane prices, and only a slight increase (about 3 percent) in residential electricity prices. For more information, see EIA's **Short-Term Energy Outlook–October 2003** at

<http://www.eia.doe.gov/emeu/steo/pub/contents.html>.

So, how can you take the sting out of higher natural gas prices? Take steps to reduce energy consumption and costs. There are a number of steps you and your tenants can take, such as:

- **tune-up** your heating system to keep it operating at peak efficiency
- **seal** cracks, gaps, and holes in the building shell to keep heated air inside
- **replace** appliances, heating and cooling systems, and other equipment with Energy Star-rated models
- **turn off** lights, entertainment equipment, and other systems when they're not being used



For more information on how you can conserve energy, see Energy Star's **High Energy Bills** webpage at

[http://www.energystar.gov/index.cfm?c=home\\_solutions.hm\\_i mprovement\\_highenergy](http://www.energystar.gov/index.cfm?c=home_solutions.hm_i mprovement_highenergy).

For a more in-depth look at energy conservation opportunities, see Rebuild America's **Potential Energy Efficiency Measures Overview**, which you can download at <http://www.rebuild.org/lawson/energyefficiency.asp>



## **EVENTS**

### **26<sup>th</sup> World Energy Engineering Congress.**

November 12-14, 2003

Atlanta, Georgia

Learn about state-of-the-art solutions to reduce energy costs and improve

overall performance in commercial, industrial, institutional, and government facilities. Find the immediate answers you need and assess the full scope of potential energy solutions available to you! For more information, see <http://www.energycongress.com/>

### **Capital Fund Program Seminar**

December 1-2, 2003

Orlando, Florida

Congress mandated the Capital Fund Program, a new formula-based program in the Public Housing Reform Act to fund capital improvements, applicable to all Local Housing Agencies (LHAs) regardless of size. CFP differs from previous "modernization" programs in a number of respects. First, it eliminates the previous linkage to Needs Assessments and instead incorporates capital planning into the recently-mandated PHA Plan process. Secondly, it enables local agencies to use CFP funds for new construction and encourages the leveraging of these funds with other sources including the newly granted ability to borrow against existing assets. Participants will learn about these new aspects of the program and will use "hands-on" case studies to practice applying these new concepts to real life. For details, see [http://www.nahro.org/professional/seminars\\_capital.html](http://www.nahro.org/professional/seminars_capital.html).

### **Lighting Education Online**

Switching to energy-efficient lighting can make a big difference in your energy bills. Take advantage of the convenience of this interactive, Internet-based education program offered by Rensselaer Polytechnic Institute to help building, design, and facility management professionals learn more about advanced lighting technologies. For more information, see <http://www.lrc.rpi.edu/education/learning/>.



### **SUCCESS STORIES**

#### **Wooster Manor Public Housing CHP Project — Danbury, CT**

In its Wooster Manor property—an all-electric building—the City of Danbury (Connecticut) Public Housing Authority in 1998 converted units on four floors to hydronic baseboard heating, removed the electric water heaters, and installed a 60-kW packaged combined heat and power (CHP) system to provide electricity and hot water to the building. With these changes, the building's energy use was reduced by some 50 percent, or about \$40,000 annually. The project was funded through a Yankee Energy Financial Services, a financing affiliate of Yankee Gas, with a 10-year \$275,000 loan. Read more at <http://www.hud.gov/offices/cpd/energyenviron/energy/library/hudchpDanburyCt.pdf>.

### **Summit Plaza Complex CHP Project—Jersey City, New Jersey**

In 1974, HUD launched the “total energy” initiative to demonstrate that combined heat and power (CHP) systems could provide power, heating, and cooling to HUD multifamily properties more efficiently than other systems, and also reduce imported resources. The CHP concept—called Modular Integrated Utility Systems at that time—was applied to Summit Plaza, a six-acre complex in Jersey City, as part of Operation Breakthrough. This ambitious project had the goal of developing and demonstrating major innovations in the field of industrialized building techniques for use by the housing industry. While cost savings are said to be difficult to analyze, the system saves 160,000 gallons of fuel oil annually. And, say project officials, the reliability and performance of the Summit Plaza CHP system have been very good. Even after nearly 30 years, the system still saves some 160,000 gallons of fuel oil each year. Learn more at

<http://www.hud.gov/offices/cpd/energyenviron/energy/library/hudchpJerseyCityNj.pdf>.

### **Somersworth Housing Authorities Combined Energy Efficiency Project—New Hampshire**

The New Hampshire housing authorities of Keene and Somersworth are among the first rural housing authorities to participate in an energy-efficiency performance contract. Through aggregation and collaboration, the two rural entities are taking advantage of incentives that have until now only been available for large metropolitan housing authorities. By pooling the number of projects and partnering with Vestar to develop energy solution programs, the housing authorities will save more than \$110,000 annually. For more information, see

<http://www.vestar.net/PressReleases/Somersworth%20KeenePHA.html>.

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#### **TIP OF THE MONTH** **Tune up Heating Systems**

Fall is a good time to tune up your heating system to ensure that it operates efficiently this winter. The cost of a heating system tune-up ranges from \$50 to \$100, but can save 3 to 10 percent on heating costs each heating season. While oil-fired systems need to be tuned annually, gas systems should be tuned every two years and geothermal heat pumps should be professionally serviced every two or three years. Unless you have qualified maintenance personnel on staff, a tune-up should be performed by a qualified technician, and should include combustion efficiency testing, parts cleaning, and any necessary adjustments.

There are some do-it-yourself measures you can undertake, too. For example:

- **check** and clean or replace air filters regularly during the heating system to keep the system operating at peak efficiency
- **clean** heat registers and remove foreign objects
- **close** off air vents in unused areas

For more information, see **Tune Up Your Furnace for Savings and Safety**, from the Iowa Energy Center, at <http://www.energy.iastate.edu/news/pr/pr-furnacetips.html>.

If your heating system is old, worn out, inefficient, or significantly oversized, consider replacing it with a new high-efficiency model. Choose an Energy Star-rated system for greater efficiency, which means lower energy bills! Find out more about **Energy Star-rated systems** at [http://www.energystar.gov/index.cfm?c=heat\\_cool.pr\\_hvac](http://www.energystar.gov/index.cfm?c=heat_cool.pr_hvac).

As well, the American Council for an Energy-Efficient Economy (ACEEE) lists the most energy-efficient appliances, including boilers and furnaces at <http://aceee.org/consumerguide/mostenef.htm>.



## WEBSITES WORTH A CLICK

### Energy Savers

Looking for ways to save energy in your properties, or ways your tenants can save in their individual units? Look to DOE's new consumer-oriented website, "Energy Savers: A consumer guide to energy efficiency and renewable energy," for advice! The new site combines the popular **Energy Savers** booklet with new content on ways to save energy at home, as well as ways to use renewable energy to provide power, hot water, and heating and cooling. See the website at <http://www.eere.energy.gov/consumerinfo/>.

### EnergyIdeas Clearinghouse

Still hungry for information? The EnergyIdeas Clearinghouse is sure to hit the spot, with more than 5,000 energy efficiency resources to help conserve energy! Information is available for a variety of business types, including residential, and a large number of topic areas! See the website at <http://www.energyideas.org/>.

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The Public Housing Energy Conservation Clearinghouse is managed by the nonprofit National Center for Appropriate Technology (NCAT) for HUD, Office of Public and Indian Housing.

Comments? Questions? Email the newsletter editor at [cathys@phaenergy.org](mailto:cathys@phaenergy.org).

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