



## Public Housing Energy Conservation Clearinghouse News

### April 2006

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/>.

To contact the Public Housing Energy Conservation Clearinghouse email [pheccinfo@drintl.com](mailto:pheccinfo@drintl.com) or call 1-800-955-2232.

### News:

- California Utilities Fund \$2B in Energy Efficiency Rebates: Largest Effort in History
- Good at What You Do? Apply for a \$25,000 Property and Asset Management Award
- SuperNOFA Grants Offer Modernization Opportunities

### Events:

- Multifamily Buildings 2006, June 26-28, New York, NY

### Success Stories:

- Nebraska Energy Office: Affordable and Efficient at No Extra Cost

### Technology Tip:

- Water Heating: Selecting the Right Temperature for Your Building

### Energy Watch:

- High Energy Costs Boost Construction Costs

### Websites Worth a Click

- Spring Cleaning: Is It Time to Adjust Your Utility Allowances?

## California Utilities Fund \$2B in Energy Efficiency Rebates, Largest Effort in History

The California Public Utilities Commission (CPUC) recently issued \$2 billion in funding for energy efficiency programs in 2006-2008, including installation of qualifying energy-efficient products in multifamily buildings. This energy efficiency and conservation campaign is the most ambitious in the history of the U.S. utility industry.

Look to these California utilities for home improvement rebate programs in the state:

- [Pacific Gas and Electric](#)
- [Southern California Edison](#)
- [Southern California Gas Company](#)
- [San Diego Gas and Electric](#)

[Pacific Gas and Electric rebates](#) range from \$.15 per square foot of insulation to \$1,500 for central system natural gas boilers. Rebates are available for buildings that contain five or more units. To qualify, contact the utility before making a purchase.

Search the [ENERGY STAR special offer locator](#) to find utility promotions in your state.

## Good at What You Do? Apply for a \$25,000 Property and Asset Management Award

[The Enterprise Foundation](#) and the MetLife Foundation are offering Awards for Excellence in Affordable Housing. Regional- and community-based 501(c)(3) nonprofit organizations and Tribally Designated Housing Entities are eligible for awards ranging from \$10,000 to \$25,000. Awards are available in two categories: Supportive Housing, and Property and Asset Management.

Applications must be submitted by May 5, so [apply now](#).

## SuperNOFA Grants Offer Modernization Opportunities

On March 8, HUD Secretary Alphonso Jackson unveiled [HUD's Fiscal Year 2006 "SuperNOFA,"](#) making available over \$2 billion in grants through 39 programs. Some programs offer funding for modernization:

- Section 202, Supportive Housing for the Elderly
- Section 811, Supportive Housing for Persons with Disabilities
- Section 8, Moderate Rehabilitation Single Room Occupancy Program for Homeless Individuals

The Department encourages applicants to submit their applications electronically through [www.grants.gov](http://www.grants.gov).

## EVENTS

### Multifamily Buildings 2006

June 26-28, 2006

*New York, New York*

This conference, presented by the [Association for Energy Affordability](#), offers a wide range of topics useful to PHAs, including:

- Energy and water efficiency in public housing: challenges and successes
- ENERGY STAR opportunities for multifamily new construction and existing buildings
- Low-rise, multifamily housing success stories
- Healthy, durable, and energy-efficient affordable housing
- Operations and maintenance innovations
- Advanced metering, demand management, and building controls
- Financing and tax credits
- Utility and public benefit programs
- Federal low-income energy assistance and the Weatherization Program's role in multifamily housing

### Earth Day is April 22

Plan an Earth Day event to help tenants save energy and water.

[Find ideas](#) on the PHECC Website.

## SUCCESS STORIES

### Nebraska Energy Office: Affordable and Efficient at No Extra Cost

The Nebraska Energy Office (NEO) completed a prototype home last spring that demonstrates that affordable housing can be built with much higher energy efficiency at no additional cost. In fact the house is 40% more energy efficient but didn't cost more to build than a conventional home of the same size. To do this, NEO worked with building science professionals from the [Consortium for Advanced Residential Buildings \(CARB\)](#) through a partnership with the Department of Energy's Building America program.

### Design, Installation, and Sizing

If you install energy-efficient equipment and do not consider the entire building system, you may not see the savings you were expecting. [Proper system design, installation, and sizing are key.](#)



Value-engineered framing can reduce the amount of wood used in stick-frame construction as much as 25 percent.

Located in Lincoln, Nebraska, the house was built with a [systems engineering approach](#) that considers how features of one component in the house can greatly affect others, enabling the incorporation of energy-saving strategies at no extra cost. For example, a well-insulated, airtight shell allows for a smaller heating or cooling system. These savings can then be reinvested in other energy-saving upgrades, such as high-performance windows, that further reduce energy use and costs. Other techniques employed in the Nebraska house were:

- [Value-engineered framing](#)
- [Home sealing](#)
- A plenum truss, which allows all ductwork to fit inside the conditioned space in the attic
- Combined insulation techniques

Read more about techniques NEO employed to [cut construction costs](#).

For more information about value-engineered framing, also called advanced framing techniques, from the Partnership for Advancing Technology in Housing, visit:

- [Advanced Framing Techniques: Optimum Value Engineering \(OVE\)](#)
- [Advanced Framing Techniques: ToolBase TechSpecs](#)

## TECHNOLOGY TIP

### Water Heating: Selecting the Right Temperature for Your Building

Over the past few months, PHECC has provided guidance on proper water heating temperatures. The challenge for every PHA is providing sufficient hot water to residents at temperatures that are low enough to reduce the danger of scalding, but high enough to prevent bacteria growth. Sometimes, it's a catch-22.

The water heater temperature setting for single-family homes should be no higher than 120 degrees Fahrenheit, according to the U.S. Department of Energy and the U.S. Consumer Product Safety Commission (CPSC). This setting prevents scalding accidents and will conserve energy and save money compared to higher settings. Larger system water heater settings aren't quite so straightforward. Due to [temperature losses during distribution](#), the setpoint at the heater might have to be higher than 120 degrees in order to deliver 120 degree water to the taps in multiple residences. Also, larger water heating systems are more susceptible to bacteria, which can grow when water is stagnant. Check your local code for temperature settings and follow these tips to keep water in multifamily buildings healthy:



- Avoid conditions that allow water to stagnate, says the Occupational Health and Safety Administration (OSHA). Large water-storage tanks exposed to sunlight can produce warm conditions favorable to bacteria. Frequent flushing of unused water lines will help alleviate this problem. Refer to [OSHA's guidance on operating systems](#) for guidelines.
- According to the U.S. Environmental Protection Agency (EPA), [chloramine](#), rather than chlorine, can be used for disinfection. Chloramine may prevent bacteria somewhat better because it [does not dissipate](#) as readily as free chlorine when the water is heated. (Fish owners must remove chloramines from water used in aquariums or ponds, but treatment products are readily available at aquarium supply stores.) Chloramines also react with certain types of rubber hoses and gaskets, such as those on washing machines and hot water heaters.

## ENERGY WATCH

### High Energy Costs Boost Construction Costs

Last year's dramatic increase in fuel costs has increased this year's construction costs, according to McGraw-Hill Construction. The research firm reported an 8-percent increase in material costs for building construction, including a 15-percent increase for wallboard, a 13-percent increase for plastic construction products, and a 10-percent increase for concrete products.

#### Efficient Showers Save Water and Energy

An [efficient showerhead](#) will save a family of four about 27 cents a day on water and 51 cents a day on electricity, which adds up to \$285 per year. Installing them couldn't be easier: just screw them on.

This rise in construction costs makes energy-saving design even more urgent. [Green Communities](#), a five-year, \$555 million initiative to build healthy homes for low-income families, lists [20 low-cost strategies for green construction](#). Most of these involve energy-saving strategies, such as:

- [Orienting buildings to maximize natural daylighting](#)
- [Selecting a light-colored "cool roof"](#)
- [Providing overhangs on south-facing windows](#)
- [Installing whole-house fans or ceiling fans](#)

## WEBSITES WORTH A CLICK

### Spring Cleaning: Is it Time to Adjust Your Utility Allowances?

When retrofits reduce energy consumption, utility allowances should be adjusted accordingly. As indicated by [24 CFR 965.507](#), the basis on which utility allowances have been established shall be reviewed at least annually. This is especially important in these times of volatile energy prices. For those with an active Energy Performance Contract, work with your ESCO to review and establish revised utility allowances.

#### Quick Tip

PHECC's [Utility Allowance Webpage](#) provides guidance on how to set utility allowances.

Energy-efficient utility allowances benefit PHAs by:

- Allowing the PHA to keep more money for rent. For example, if the utility allowance is reduced by 10 dollars, 10 dollars can be added to the cost of rent to achieve the allowable housing burden.
- Accurately reflecting the cost of utilities that energy-conserving households pay.
- Supporting production of energy-efficient affordable housing units.

Learn how [Designed for Comfort](#), an energy efficiency incentive program, is helping PHAs in California develop energy-efficient utility allowances.