



Public Housing Energy Conservation Clearinghouse News

July 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 or call 1-800-955-2232.

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- New Water Efficiency Program Saves Dollars, Makes Sense

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- 2006 National Workshop on State Building Energy Codes. *July 31-August 3, 2006. Denver, CO.*

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- St. Paul PHA Chooses Green Design

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What's "Green Building" Got To Do With It?

"Green building" has taken the residential market by storm, but what exactly does it mean and how will it benefit your PHA?

[The U.S. Green Building Council](#) defines green building as design and construction practices that significantly reduce or eliminate the negative impact of buildings on the environment and occupants in five areas:



This multifamily residence features renewable technologies such as solar photovoltaic panels. Source: US Department of Housing and Urban Planning

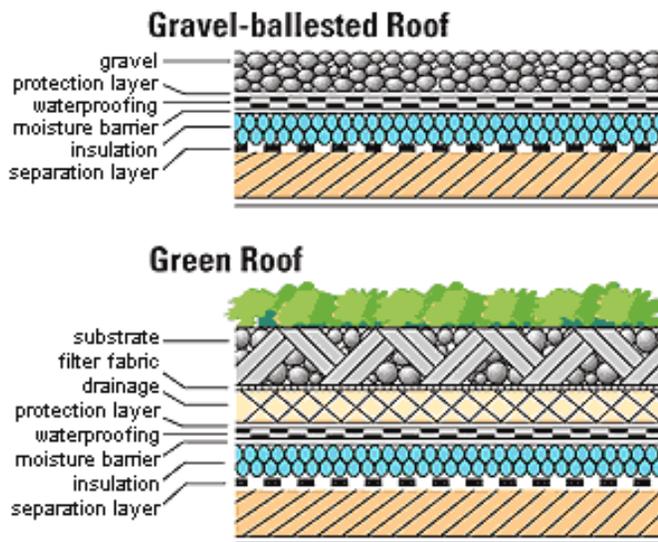
- Sustainable site planning
- Safeguarding water and water efficiency
- Energy efficiency and renewable energy
- Conservation of materials and resources
- Indoor environmental quality

For example, if you build or remodel a unit to be [energy efficient](#), it costs less to heat and cool. You may also save on the HVAC system because a more efficient building often requires smaller equipment. If you use materials efficiently, you reduce waste and keep costs down. When a home controls air and water infiltration and its materials do not release harmful chemicals, it [keeps residents healthy](#).

The initial [costs of constructing a sustainable building](#) are usually 2-10 percent higher than conventional construction, but operating costs of sustainable buildings are significantly lower. If you are replacing equipment or upgrading existing units, the difference in price may be made up in energy and maintenance savings down the road. To get an idea of how much energy you could be saving, visit the US Department of Housing and Urban Development's (HUD) [Energy Efficient Rehab Advisor](#), the US Environmental Protection Agency's (EPA) [Home Energy Yardstick](#), and the Department of Energy's (DOE) wide range of [energy calculators](#).

Many areas have local green building programs that provide and certify green construction. Visit the National Association of Homebuilder's list of [local green building programs](#) and [program summaries for more information](#).

Growth in Green Roofs at Record Heights



Source: US Environmental Protection Agency, Courtesy of Albrecht Duerr

Installation of green roofs increased by over 80 percent in 2005 in North America, according to [Green Roofs for Healthy Cities](#). Chicago took the prize for the city with the most installed square footage of green roofs planted in 2005.

Green roofs provide benefits for PHAs by reducing heat load and monthly utility costs, but they also control the rate of storm runoff during heavy rains, reduce sewage system loads, absorb air pollution, help reduce the urban heat-island effect and last longer, as plants absorb harmful ultraviolet light.

Roof gardens can be installed with a wide variety of plants, which are usually chosen from specialty suppliers depending on the soil depth and climate. Some building owners create recreational gardens, but many green roofs are just simple layers of vegetative matter. Building owners must decide which type they prefer so that architects can account for the added weight of a green roof in their design.

Learn more about green roofs from [EPA](#) and the [Penn State Center for Green Roof Research](#). To learn about other green options that might be a good fit for your project, check out the American Institute of Architects' [Affordable Green Guidelines](#).

New Water Efficiency Program Saves Dollars, Makes Sense

[WaterSense](#), a new water efficiency program developed by the EPA, will ensure the performance of [water-efficient products](#) with a WaterSense label. The label will be easily identified on products and services that perform at least 20 percent more efficiently than their less efficient counterparts. With the new label, PHAs will be able to make smart water choices that save money and maintain high environmental standards without compromising performance.

Easily corrected household water leaks can consume up to 8 percent of a water bill. The average household adopting water-efficient products and practices can save 30,000 gallons per year. WaterSense labeled products will be available early next year. In the meantime, learn about [5 simple ways](#) to save water now and search for a local [water efficiency program](#) in your State.

ENERGY STAR Wants Your Old Refrigerator

See how much energy your old refrigerators are wasting. To kick off its campaign ENERGY STAR has launched a [Refrigerator Retirement Calculator](#). PHAs can use this tool to see when it's time to invest in a newer model. Is it your time?

EVENTS

SOLAR 2006

July 8-13, 2006

Denver, CO

The American Solar Energy Society's conference, [Renewable Energy: Key to Climate Recovery](#), will feature research updates, case studies, workshops, networking opportunities, and products and services.

2006 National Workshop on State Building Energy Codes

July 31-August 3, 2006

Denver, CO

The U.S. Department of Energy's (DOE) [National Workshop on State Building Energy Codes](#) provides information on a wide variety of energy codes and standards-related topics. This is an excellent opportunity for PHAs to learn what other organizations are doing to support energy-efficient buildings.

SUCCESS STORIES

St. Paul PHA Chooses Green Design

When it was time to design a new office building, the [St. Paul Public Housing Authority](#) was determined to reduce operating costs. Green building principles led the way.



The new 65,000-square-foot building is aligned on an east-west axis to reduce heating and cooling demands, capture low winter sun, and provide shade from the summer sun. Low-e glass on the building's south side, and metal sunshades on the south, east, and west reduce solar gain, while glazing moderates heat and light levels. Throughout the building, high-efficiency mechanical systems, including a variable air volume system, energy-efficient motors, automatic temperature reset controls, and an energy management system, reduce energy use during peak-demand hours.

To improve indoor air quality, the agency chose recycled carpeting, concrete, and ceiling panels and low-VOC paint, backing, and adhesives. A [rain garden](#) outside the building helps manage stormwater with native trees, shrubs, and flowers.

The agency expects to see a return on its investment within the next 2 to 6 years. The agency also earned an energy rebate of more than \$12,000 from the local utility company after a consultant modeled the building's energy use.

For more information on this project, read the article from Building Operating Management, "[Adding Up To Green Design](#)".

ENERGY WATCH

2006 Hurricanes May Further Reduce Natural Gas Supplies

As the Southeastern United States enters a new hurricane season, the [National Oceanic and Atmospheric](#)

[Administration](#) (NOAA) is predicting another active series of tropical storms. A new report from DOE's Energy Information Administration (EIA), based on NOAA's [forecast](#) and statistical analysis of the impacts of past storms, finds that the reduction in natural gas production from the Federal Outer Continental Shelf, a major source of U.S. oil, may be as much as 206 billion cubic feet. This translates into higher prices for consumers. Download the report, "[The Impact of Tropical Cyclones on Gulf of Mexico Crude Oil and Natural Gas Production](#)".

Grant Alert

Grants up to \$5,000 are available from [Green Communities](#) to support green predevelopment "charrettes," workshops to bring together funders, developers, community stakeholders, and green building professionals to incorporate green design principles in affordable housing design. [Click here](#) for grant guidelines and the application form.

Supplies are further strained because the Gulf of Mexico is still recovering from the hurricane season of 2005. As of June 1, 2006, production was down by 21 percent from that region, according to the [Minerals Management Service](#).

Over the next few months, average natural gas spot prices are expected to drop to \$7 per thousand cubic feet (mcf), down from \$13.44 in December 2005. But the respite is expected to be short-lived. Concerns about future supply and continuing pressure from high oil market prices may drive spot natural gas prices over \$10 per mcf this winter.

For more information and ideas on how to reduce residential natural gas use, view DOE's [Residential Natural Gas Prices Brochure](#).

WEBSITES WORTH A CLICK

New PHECC Water Resources Page

Residential water use is often overlooked when building managers look at efficiency. PHECC has developed a new [Webpage](#) that will help your agency save water and money.

New Tax Deduction for Energy Efficiency in Multifamily Buildings

PHAs that own multifamily residential buildings that are more than three floors above grade may be able to take advantage of new tax deductions for energy efficiency in commercial buildings, according to an [IRS notice](#) issued June 2, 2006.

For more information, visit the [PHECC Website](#).