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www.hud.gov/offices/pih/programs/ph/phecc/newsletter/newsletter.cfm

Partnering PHAs Use Energy-Efficient Renovation and Innovation in Green Makeover



Washington State's Bellingham/Whatcom County Housing Authorities (BHA) found that innovation and forward thinking pays off. Previously, the Bellingham Housing Authority and the Whatcom County Housing Authority discovered that joining forces as BHA allowed them to maximize their impact in the community. Later they developed and maintained a 5-year priority plan for improvements. This plan proved critical when HUD called for shovel-ready projects to fund through the American Recovery and Reinvestment Act (ARRA) stimulus funding.

BHA received a \$9.9 million grant through ARRA's Public Housing Capital Fund Competitive Program to support its improvement plan and is now in the process of updating its 396 units to use less water and electricity. The project began in October 2010 and is scheduled to be completed by September of 2012.

BHA's Green Communities project is one of the first of its kind in the nation. For example, to minimize water usage, BHA replaced all 400 toilets with water saving dual flush models. These new toilets, on average, save over 2 gallons per flush which adds up to more than 1.6 million gallons per year. While the toilet renovation saves water, the disposal of the 400 old toilets could have produced lots of waste to be added to the local landfill. Instead, BHA and the Bellingham Public Works Department came to a very innovative solution – crushing the toilets and using the crushed porcelain as aggregate for concrete. This concrete will be used to pave trails in the city of Bellingham. Recycling the toilets saves the City in concrete cost and saves BHA in disposal cost in addition to keeping about 10 tons of waste out of the landfill.

Green improvements also include the installation of 220 solar panels on the roofs of its three largest buildings. The electricity produced will benefit the public housing units and any excess electricity will enter the power grid and be purchased by Puget Sound Energy.

Moreover, BHA's Washington Square development will have a geothermal heat pump system installed that pulls heat from the constant temperature of the ground. The geothermal system will preheat the building's hot water so the hot water heater will use less gas to complete heating the water.

At the Lincoln Square development, the concrete rooftop courtyard will be converted in to a resident accessible green roof that will use a rainwater harvesting system to irrigate the landscape. A day-lighting system, using natural light and automatic light switches, will also be installed at this residency. Finally, the obsolete boilers in all three buildings will be replaced with energy-efficient models.

"This is a great investment for the Housing Authority, the Residents and the City of Bellingham," said John E. Harmon, Executive Director and CEO for the Bellingham Whatcom County Housing Authorities. "We will save energy, long term operation costs and improve the living environment for our residents." The progress of BHA's Green Communities Projects can be followed through their blog at:

<http://projectbellingham.wordpress.com/>

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UPCOMING EVENTS

- » **The Energy & Environmental Building Alliance: Excellence in Building Conference**
September 14-16, 2011
Las Vegas, NV
<http://www.eeba.org/conference/>
- » **U.S. Department of Energy Solar Decathlon**
September 23-October 2, 2011
National Mall, West Potomac Park, Washington, DC
<http://www.solardecathlon.gov/>
- » **Solutions for Sustainable Communities: 2011 Learning Conference on State and Local Housing Policy**
September 26-28, 2011
Washington, D.C.
<http://bit.ly/k3DvrD>

New EPA Program to Protect the Environment from Refrigerators



What happens to old and broken appliances after they leave your unit? In October of 2006, the EPA began the Responsible Appliance Disposal (RAD) program, which, through its partners, recovers ozone-depleting chemicals from old refrigerators, freezers, window air conditioners and dehumidifiers. Ozone in the earth's atmosphere provides natural protection from the sun's harmful ultraviolet (UV) rays which can cause skin cancer, eye damage, immune suppression and skin problems.

By recovering ozone-depleting chemicals RAD works toward improving atmospheric ozone levels. The EPA acts as the program's technical clearinghouse and is responsible for the RAD program development and implementation. The EPA also measures and calculates the emissions savings achieved under the program. In 2009, as reported by the EPA, 682,298 refrigerators, stand-alone freezers, window air conditioners and dehumidifiers were processed through the RAD program resulting in over \$319.5 million in consumer energy savings.

RAD partners include utility companies, retailers, local governments, manufacturers, universities and other interested retailers such as GE and Sears—as well as many local utilities. RAD partners encourage appliance owners to switch from old inefficient appliance to new units that may consume a half to a quarter of the energy. Currently 33 RAD partners have voluntarily joined the program and these partners use best practices to make sure:

- Refrigerant is recovered and reclaimed or destroyed;
- Foam is recovered and destroyed, or the blowing agent is recovered and reclaimed;
- Metals, plastic and glass are recycled; and
- PCBs, mercury and used oil are recovered and properly disposed.

Tom Schober, Southern California Edison (SCE) Program Manager, states, "SCE has been a proud RAD partner since 2007. With each passing year, we've expanded our appliance recycling program to help our customers save even more energy and money, while protecting the environment."

More information on the RAD program can be found at: <http://www.epa.gov/ozone/partnerships/rad/>

Resident's Corner | Cold Wash Turns into Cold Cash and Other Energy Saving Laundry Tips

Changing how you wash clothes not only helps the environment but can dramatically reduce utility allowance spending. There are two ways to reduce the amount of energy used for washing clothes – using less water and using cooler water. In fact, about 90% of the energy used for washing clothes is for heating the water and, according to the Rocky Mountain Institute, water heating accounts for approximately 19% of total home energy use.

The following water and energy saving tips can help ensure you do not exceed your utility allowance:

- Wash only full loads, but do not overload your machine. Wash smaller loads when you have a small-load attachment or variable water levels.
- Use the correct amount of detergent. Too much detergent will cause excess bubbles that make your machine work harder and use more energy.
- Push the "cold/cold" button on your washing machine for 80% of the loads you do this month and you will cut 72 pounds of CO2 emissions this month alone. Washing 4 out of 5 of your laundry loads in cold for a year and you will save more than \$60 in energy costs for the year (\$100 a year if you live in regions with high electricity costs).

To further reduce utility costs, here are some tips on drying your freshly washed laundry:

- Air-dry clothes on clothes lines or drying racks.
- Use the cool-down cycle to allow the clothes to finish drying with the residual heat in the dryer.
- Clean the lint filter in the dryer after every load to improve air circulation.
- If buying a washer, look for the Energy Star label. Energy Star washing machines clean clothes using half the energy and half the water compared to standard washers. Energy Star models also spin the clothes better, resulting in less drying time
- If buying a dryer, look for one with a moisture sensor as Energy Star does not label clothes dryers because most of them use similar amounts of energy. However, moisture sensors will automatically shut off the machine when your clothes are dry – saving energy and prolonging the life of your clothes.

Combining the washing and drying energy saving tips can result in saving money while maintaining clean fresh laundry.

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