

ECOWISE

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In Green Initiative Louisville MHA Leads By Example

For PHAs that are just starting to engage with green issues, the Louisville, Kentucky Metro Housing Authority (LMHA) is setting an example through its commitment to environmentally responsible operations through its Green Initiative. LMHA teamed up with local government and green program organizations to develop goals in support of the environmental and health benefits of greening affordable housing. The housing authority designed a plan to develop, renovate and maintain housing stock and communities with green materials and energy efficient technologies. Its second goal is to conserve energy and other natural resources. The third goal is to increase awareness of environmentally responsible business and development practices. LMHA has put these goals into action throughout their community and developments. Below are a few examples of the Green Initiative programs.

The housing agency participated in the Mayor of Louisville's Kilowatt Crackdown, a contest for local businesses to show how "going green can save green." LMHA's Avenue Plaza development, an 18 floor high-rise that houses 225 elderly and disabled families as well as its Central Office, participated by replacing over 500 light fixtures, along with installing chillers, weather-stripping and door sweeps. The result of these efforts was an annual utility cost savings of \$16,606 and Avenue Plaza was recognized as one of five finalists for the Kilowatt Cup award.

Some housing agency residents are also involved in the Green Initiative's recycling effort. Teaming with Louisville's Solid Waste Management Services Division, the residents of Avenue Plaza collected recyclables weekly and measured the recyclables by floor at monthly "Tally Rallies." During the initial six month pilot period, over 10 tons of recyclables were collected. LMHA has plans to expand the program to other developments.

The crowning achievement of the LMHA's green initiative is Liberty Green. The development was funded by a HOPE VI Revitalization grant. Its units are 40% more efficient than homes built to the 1993 National Model Energy Code. Compact fluorescent lighting with motion detector switches and Energy Star appliances were installed to minimize electricity use. Increased efficiency in the heating and cooling systems was achieved by incorporating exterior wall insulating concrete forms, geo-thermal heating and cooling, and energy efficient windows into the construction. The housing authority also focused on water and air quality by installing pervious brick pavers in the parking lots to limit storm water run-off and using paint free of volatile organic compounds.

In 2007, Liberty Green was recognized with the EPA Energy Star National Award for Excellence in Affordable Housing becoming the first mixed-income development in Kentucky to receive this award. The Liberty Green Community Center has applied for LEED certification in the hope that it will receive a "Gold" rating. LMHA's Green Initiative is at the forefront of energy efficient affordable housing and is excited to share its successes with other housing providers and public housing agencies. LMHA's contact information and more details on its Green Initiative are available at: <http://www.lmha1.org/about/green.htm>.

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UPCOMING EVENTS

- » **Opportunity Green Business Conference**
November 10-11, 2011
Los Angeles, CA
<http://www.opportunitygreen.com/>
- » **2012 ENERGY STAR Award Applications**
Applications Due:
December 2, 2011 at 8pm EST
http://www.energystar.gov/index.cfm?c=pt_awards.pt_es_awards

Window Energy Performance

Energy-efficient windows contribute to lower energy bills, improve the comfort of residents, and can reduce condensation. The initial cost of purchasing and installing these windows can prove to be a barrier in low-income housing. However, window energy efficiency measures can qualify for financing and incentive programs and due to lower heating and cooling loads. These windows also may allow for the use of smaller and less expensive HVAC equipment. In buildings where there is a lead paint hazard, window replacement can be the single most effective way to eliminate lead dust.

The National Fenestration Rating Council (NFRC) is a non-profit organization that administers the only uniform, independent testing, rating, and labeling system for the energy performance of windows, doors, skylights, and attachment products. The NFRC ratings are third party verified and recognized by energy codes as indicators of whole window energy performance. The NFRC label provides a reliable way to determine a window's energy properties and to compare products, and can be found on all ENERGY STAR® qualified windows.

Windows gain and lose heat in various ways. Two key measurements are U-Factor and Solar Heat Gain Coefficient (SHGC). U-factor is the rate of non-solar heat transfer through a whole window. NFRC's U-factor ratings represent the entire window performance, including frame and spacer material. The lower the U-factor, the more energy efficient the window.

SHGC measures the fraction of solar heat that is transferred through the window resulting in heating the inside of the home. A window with a high SHGC rating is more effective at collecting solar heat gain during the winter. On the other hand, a window with a low SHGC rating is more effective at reducing cooling loads during the summer by blocking heat gained from the sun. The appropriate window depends on the climate, orientation and shading condition.

Finally, to get maximum savings when replacing windows in existing buildings, ensure that the window is properly sealed and that there is minimal air leakage from the window and frame and surrounding wall. Talk to your contractor to find the best approach to maximize the savings from your new windows.

The U.S Department of Energy (DOE), through its windows volume purchase program, can assist PHAs find products for maximum heating energy savings, including: highly insulating windows, and low-E storm windows from various vendors at competitive prices. Windows in this program have a U-factor of no higher than 0.22, while storm windows must include heat-reflective low-E glass. More information on the DOE volume purchase program can be found at <http://www.windowsvolumepurchase.org/>.

For additional information on window energy efficiency solutions for public housing, go to <http://bit.ly/qw3ihO>

Resident's Corner | Energy Efficient Weatherization Tips



As winter approaches, residents can ensure they maintain warmth and save energy during the winter months. Though they propose different methods, each tip below offers a way for residents to make small changes in their home for greater winter warmth.

- Close all your windows tightly and remove any window air conditioners.
- Open blinds or curtains in your windows (especially those windows facing south) during the day. This lets in sunlight and provides mid-day warmth. Closing them in the evening helps to provide a bit of insulation from the evening cold.
- Make sure air vents are clear of any furniture blocking them.
- If you have bare floors in your home, consider getting an area rug. Covering a bare floor can really help to warm a room.
- Keep all closet doors closed when possible. There's no need to heat space that isn't in use as long as it doesn't contain water pipes.
- Try to use the clothes dryer for consecutive loads of laundry. This conserves the energy that would be needed to heat up the dryer several times.
- If you and your family are staying in the living room and kitchen area, keep the doors to unused rooms, such as your bedrooms and also closets closed. Doors are a barrier between you and the cold outdoors and also stop air from circulating as much, which reduces heat loss. Dress warmly for winter, even inside. Roughly speaking, a light long-sleeved sweater is worth about 2 degrees in added warmth, while a heavy sweater adds about 4 degrees. Make sure to wear shoes or slippers inside.
- Be active by exercising. Vigorous exercise can warm you up and keep you warm well after the exercise session is over.

By incorporating these tips into your daily routine, you can remain comfortable in your unit while conserving energy at the same time.

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