

# EcoBUILD NEWS

## 2008 Mid-Year Green Building Report from Memphis Light, Gas and Water

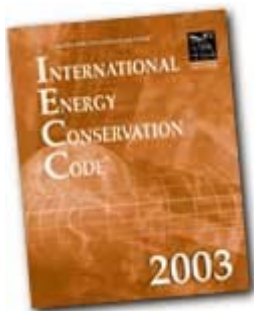
### Tennessee legislature mandates new energy code for state

#### New homes built in Shelby County must meet 2003 International Energy Conservation Code

After months of deliberation, the Tennessee legislature approved the International Energy Conservation Code (IECC) as the prevailing code for all residential construction in the Volunteer State. Effective 1/1/2009, all local governments must use 2003 IECC as the minimum code—although jurisdictions have the right to adopt more stringent requirements, if desired. Three counties and 18 municipalities in Tennessee previously adopted the IECC, including the City of Bartlett.

The 2003 IECC replaces Shelby County's existing code, the 1992 Model Energy Code (MEC). Although Shelby County recently adopted a newer building code, at that time it retained the 1992 MEC reference. The legislation automatically updates the applicable code, while encouraging builders to voluntarily follow the more recent 2006 IECC.

Highlights of 2003 IECC include:



- Windows – solar heat gain coefficient (SHGC) must be 0.40 or less
- Programmable thermostats – must be installed
- Recessed lights – if used, must be insulation contact-rated (IC-rated) and air-tight
- Mastic – must be used to seal all ductwork
- Balancing dampers – must be installed in ductwork
- Insulation levels – depend on the ratio of glass to gross wall area
- Duct insulation – must be R-8
- Gas water heaters – must have a minimum energy factor (EF) of 0.62

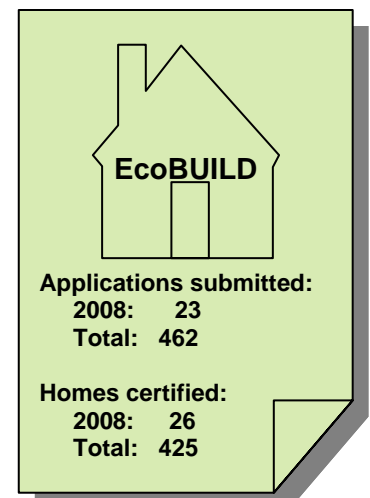
### EcoBUILD revises building standards to reflect 2009 code change

To align with upcoming energy code requirements at the county level, MLGW has revised its EcoBUILD standards effective with construction started on or after 1/1/2009. The revised standards and homebuilders manuals are attached to the email used to distribute this newsletter. Please share this information with your staff and subcontractors so all will be familiar with the new requirements.

There are several changes required to meet the 2003 IECC, as well as specific EcoBUILD modifications needed to maintain the green building program's 30% savings target. Highlights of the EcoBUILD revision include:

- Attic insulation – increases from R-30 to R-38
- Windows – U-factor drops from 0.38 to 0.35 and 0.32 SHGC now specified
- Air conditioner – remains at 14 SEER
- Heating – gas furnace remains at 80% AFUE; heat pump increases from 7.2 to 8.5 HSPF
- Duct leakage – drops from 10% maximum to 8% maximum

In evaluating options, MLGW considered numerous approaches. Increasing air conditioner efficiency is a simple—but costly—solution. Rather than requiring a



higher SEER unit, MLGW left the air conditioning requirement as is and focused mainly on building envelope opportunities and tighter ductwork. While EcoBUILD's 10% duct leakage requirement was an obstacle for many builders initially, MLGW has found that most EcoBUILD homes now register below 10%—a sign of improved duct installation. Hence, lowering maximum duct leakage to 8% is an easy, cost effective measure that will require little change for many HVAC subcontractors.

While you may adopt the new EcoBUILD standards immediately, they are not required until 1/1/2009. New EcoBUILD application fees also will be effective on 1/1/2009, with fees based on a range of home sizes. The current \$300 fee will now cover homes up to 2,500 square feet.

## Bredesen appoints two Memphians to Energy Policy Task Force

### Group's meetings address green building, consumer education, energy codes and enforcement

Homebuilder Phil Chamberlain and MLGW Board Chairperson V. Lynn Evans have been appointed to the Governor's Task Force on Energy Policy, joining 15 others representing business, community and government sectors. The group, chaired by Governor Phil Bredesen, is charged with outlining short- and long-term energy goals for the state, which ranks 1<sup>st</sup> in per capita electricity consumption, 16<sup>th</sup> in per capita energy consumption and 14<sup>th</sup> in carbon emissions.

"Energy is obviously an enormous issue," Gov. Bredesen stated during the group's first meeting, 5/5/2008. "What I'm really hoping to do with this group in the next few months is find some attainable goals and meet them."

During the initial meeting, facts on the energy situation in Tennessee and elsewhere were presented by Jeff Wadsworth, Executive Vice President of Global Laboratory Operations for Battelle, which manages national laboratories, including Oak Ridge National Laboratory.



Rising energy demand and energy efficiency opportunities were the focus of the second meeting, held 6/6/08 in Chattanooga. Joe Hoagland, TVA's Vice President of Energy Efficiency and Demand Response, shared information on the region's electric consumption growth and the resulting escalating costs for meeting that power demand. Commissioner Matt Kisber then spoke of his family's recent attempts to find skilled and knowledgeable professionals to assist with energy efficiency improvements in their existing home. Their search was frustrating, he reported, which prompted extensive discussion regarding green building resources and energy codes. A very interesting 30-minute conversation ensued, revealing a widespread lack of awareness on energy efficiency resources currently available in Tennessee. To skip to this point in the meeting, take the following link, then fast forward to time stamp 55:44 (after slide 41):

<http://nowuseeit.state.tn.us/Mediasiteexserver/Viewer/Viewers/Viewer320TL.aspx?mode=Default&peid=a91cd a37-a8ff-43da-9729-a7cd3e3895c2&pid=be6ae5fe-eb43-4c0c-b6e4-61a46e87d209&playerType=WM7#>

This discussion prompted a presentation on MLGW's EcoBUILD program during the group's third meeting, held 8/15/2008 in Memphis. Afterwards, task force members toured Uptown, learning more about the green building program and its impact on local housing. A webcast of the meeting is archived at:

<http://nowuseeit.state.tn.us/Mediasiteexserver/Viewer/Viewers/Viewer320TL.aspx?mode=Default&peid=58f93 f90-ea08-4eca-a9b1-4d34a8cb3a34&pid=fa6da408-c60a-4d54-8dd7-3c9abf62d04d&playerType=WM7> The EcoBUILD presentation and discussion occurs during the first 75 minutes of the webcast.

Findings and recommendations from the Gov's Task Force on Energy Policy and its subcommittees will be provided in the 2008 EcoBUILD Annual Report. Progress can also be followed at: [www.tn.gov/energy](http://www.tn.gov/energy)

## Mayor's Sustainable Shelby initiative unites community leaders

Green was on the mind of local government, too, as Shelby County Mayor A C Wharton launched *Sustainable Shelby: A Future of Choice, Not Chance* on 3/7/2008. Sustainable Shelby is a four-month planning initiative, drawing on the expertise of community, business and government leaders, to develop a sustainable agenda for the county.

The task involved nearly 100 representatives serving on seven sub-committees addressing public incentives, building codes, transportation & traffic, public buildings & public policies, neighborhood rebirth, environment & natural resources and land use & development. MLGW EcoBUILD representatives Kieth Kulow and Becky Williamson served on the building codes and public incentives committees, respectively.

Sub-committees presented their recommendations on 6/19/08, during which the group voted to select the top items. A public review and meeting was held on 7/8/08 at the Memphis Botanic Garden. The document is available at:

<http://dpd.gov.com/%28xpztmp550qwi2w45c3cpav45%29/Portal/resourcedocs/Sustainable%20Shelby%20Final%20Report%20July%202008.pdf>

The recommendations are now being explored by county government agencies for implementation.

## U.S. legislation encourages use of energy-efficient home mortgages, requires increased education and outreach efforts by HUD

Energy-efficient homes were among the beneficiaries of the Housing and Economic Recovery Act of 2008, which President Bush signed into law on 7/30/2008. While the act is focused primarily on addressing the mortgage crisis in the United States, it also includes measures to encourage the greater use of energy efficient mortgages (EEMs). Such mortgages allow homebuyers to purchase a new energy-efficient home, or homeowners to refinance their principal residence and incorporate the cost of energy efficiency improvements into the mortgage.

But while the idea of EEMs is laudable, the implementation of it can be challenging due to lack of consumer awareness, limited participation and promotion from banks, slow builder adoption of energy-efficient construction and other obstacles.

To address these obstacles, Section 2902 of the new act requires the Secretary of Housing and Urban Development (HUD) to develop recommendations to eliminate barriers to the use of EEMs, including the lack of reliable and accessible information on such mortgages, the confusion regarding underwriting requirements, the complex and time-consuming process of securing such mortgages, the lack of publicly available research on the default risk of such mortgages, and the limited availability of certified or accredited home energy rating services. HUD must report its recommendations to Congress within the next six months. The act also calls for HUD to carry out an education and outreach campaign for consumers, home builders, residential lenders, and other real estate professionals on EEMs and on the benefits of energy efficiency in housing.

In addition, Section 2123 of the act increases the limits for cost-effective energy efficiency improvements. For most homebuyers, the cost of improvements can now be nearly 5% of the property value, while it was previously limited to \$8,000. But the act also limits the number of energy efficient mortgages to 5% of the number of mortgages for 1- to 4-family residences insured by HUD during the preceding fiscal year. For more information, visit [http://www.hud.gov/offices/hsg/sfh/eem/eem\\_prog.cfm](http://www.hud.gov/offices/hsg/sfh/eem/eem_prog.cfm).

If your company works with specific financial institutions to sell its new homes, we encourage you to discuss the availability and requirements for EEMS with them. EEMS may be a new solution to boosting sales of your EcoBUILD-certified homes.

## Use energy features, EcoBUILD to market your new homes to buyers

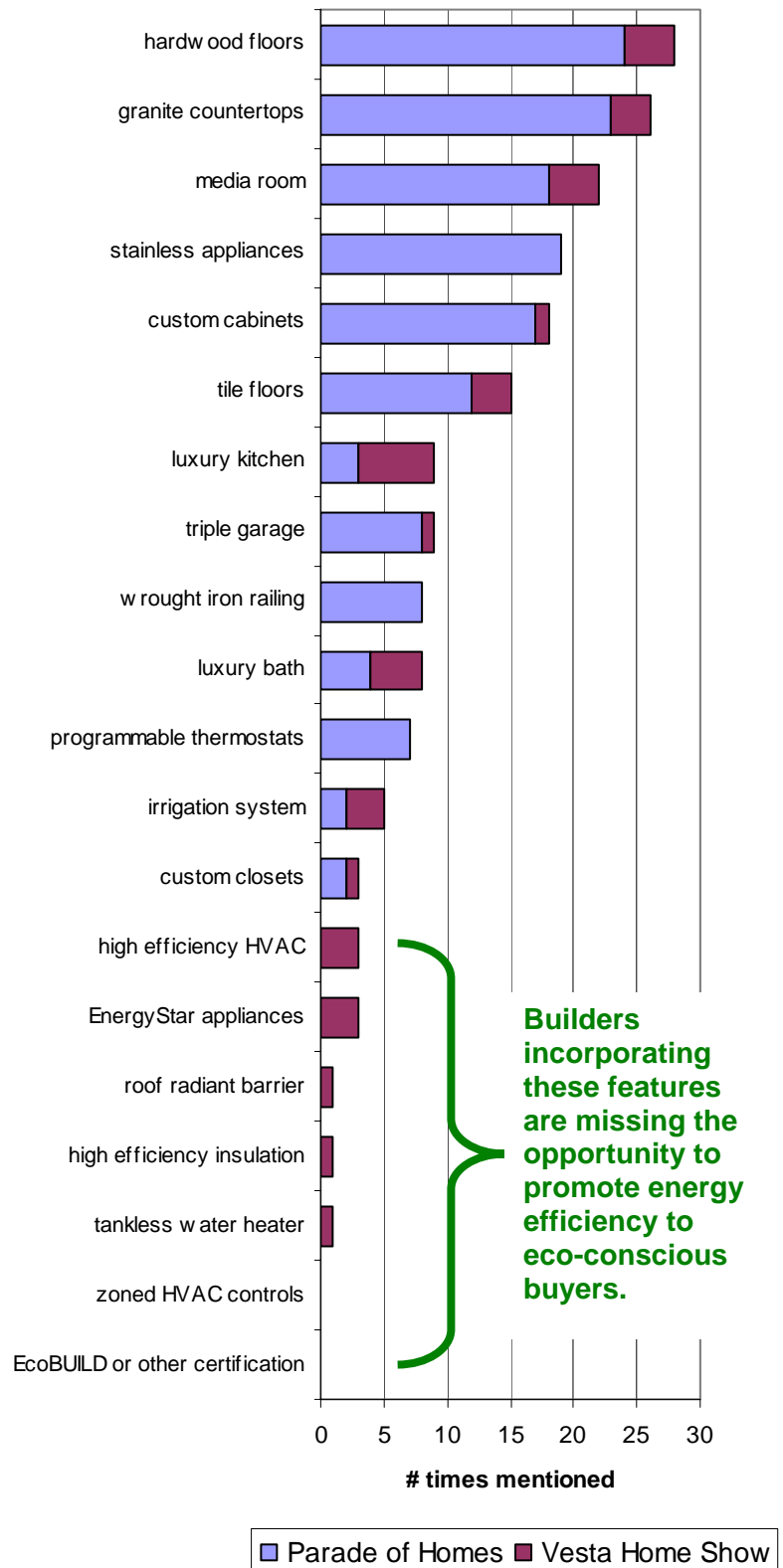
The Memphis Area Home Builders Association’s Spring 2008 Parade of Homes and Fall 2008 Vesta Home Show profiled 86 homes participating in the events. A quick review of printed home profiles, however, confirmed that builders are missing the opportunity to market energy efficiency measures as selling points for potential homebuyers. Two key facts were revealed in our research:

First, all builders appear to be marketing the same home amenities—those luxury touches that are becoming more common in today’s residential construction.

Second, builders are missing an opportunity to promote energy features incorporated in the home. During the Parade of Homes, programmable thermostats were the only amenity listed that addressed energy. The Vesta Home Show, however, included one or more promotional references to EnergyStar appliances, high efficiency HVAC, tankless water heating and high performance insulation. None of the homes were certified through EcoBUILD, EnergyStar or other energy-efficiency green building programs.

Long-term energy prices are expected to remain high compared to historic rates. Although energy features have not been strong factors in buying decisions for a few decades, now is the time to promote them in addition to popular amenities.

2008 New Home Construction Amenities Advertised



When you include high efficiency equipment, Energy Star appliances and green building techniques in your new home construction, be sure to advertise it! You'll differentiate your home from other builders and catch the eye of energy-conscious buyers. The EcoBUILD Homeowner Manual is your proof of certification.

## EcoBUILD projects continue, despite overall construction slowdown

With fewer new housing starts, EcoBUILD has seen a slowing of projects—but several builders and developers remain committed to the green building program, thereby increasing the percentage of new construction that is (or will be) EcoBUILD-certified.

Among projects in the planning or construction stages:

- Uptown Memphis, continued redevelopment of 100-block neighborhood
- TERRA, the University of Memphis Sustainable Design Home in Uptown
- Austin Park Place, a 71-home MHA development
- Habitat for Humanity, 13 homes, utilizing Home Depot Foundation grant money for green building
- McKinley Park, a 30-home MHA development
- Trinity Park, 38-home Habitat for Humanity development

EcoBUILD is a residential green building program featuring building standards, inspections and performance testing that yield a home designed to use 30% less energy than one built to applicable codes and typical local construction practices. EcoBUILD is a service of Memphis Light, Gas and Water. For information, visit [www.mlgw.com](http://www.mlgw.com), call 528-4748 or email [ecobuild@mlgw.org](mailto:ecobuild@mlgw.org)