

2010 Green Housing Summit

Affordable Comfort, Super Efficiency.

June 28-29

WORKSHOP DESCRIPTIONS

Keynote, June 28

7 Billion and 1 Reasons to Go Green • Jason Delambre, Interdependent Energies, LLC.

Descending from 30,000 ft, Mr. Delambre makes connections between emerging government policy on climate change and board responsibility, policy, building energy performance targets and sustainable home design.

How Much Does it Cost?

• Ginger Watkins, Sustainable Building Specialist, Kentucky Habitat for Humanity

The cost effectiveness of various energy efficiency strategies will be explored. Return on investment for energy-efficiency far exceeds that of most traditional investment options.

Keynote, June 29

Heating a House with a Hairdryer

Passive House: Super-Efficient, Cost Effective, Carbon-Neutrality within Reach

• Katrin Klindenburg, Director, Passive House Institute U.S., Director, Ecological Construction Laboratory

Soaring energy costs, rapid climate changes, and the demand for high indoor air quality all call for effective solutions from the building sector. With unparalleled super-energy efficiency and superior air quality, Passive House design also provides a solution that puts true carbon-neutrality within reach—Today. This session will give an overview of this high-level efficiency standard, describe the impact of Passive House in the international context and discuss its applicability in Kentucky.

Passive House Intensive, June 29

How to Build a Passive House

• Katrin Klindenburg, Director, Passive House Institute U.S., Director, Ecological Construction Laboratory

• Mike Kernagis, Builder, Passive House Institute U.S.

Intended for architects and builders, this intensive will cover construction details for super-insulated envelopes appropriate to Kentucky's mixed humid climate, critical air sealing details, HVAC integration, construction sequencing and delivery options for homes designed to meet the Passive House Standard.

Workshops, June 28 & 29

1. Location, Site & Integrated Design. Simple upfront design decisions such as orientation, window and vegetation placement and site-to-homeowner matching have a tremendous impact on quality of life, energy use and even the security of the loan. Learn how to work within the constraints of your site to optimize its potential for heating, cooling, water, food, community, safety and transportation.

2. ENERGY STAR Orientation. Compliance with ENERGY STAR will provide long-term cost savings and improved comfort for the homeowner. Blower door and duct blaster tests, thermal bypass checklist, HVAC requirements and E.ON Rater Rebate will be discussed.
3. Rehab – Planning and Practice. Learn how to start doing rehab, what to look for when accessing properties and how to plan and execute a rehab including common issues, costs and differences in volunteer management.
4. Lunchtime Roundtable: Residential Rating Systems Compared (Optional)
Overview of several prominent green building systems and comparison of the goals, costs and certification processes. Focus on LEED for Homes, NAHB Green, ENERGY STAR, DOE Builder's Challenge and Passive House. Bring your questions for the experts!
5. Net-Zero Energy Houses: Superinsulation and Affordable Renewable Energy: Superinsulation and airtightness will be presented as the most effective means to achieving affordable net-zero energy houses. Included will be a case study of an affordable net-zero energy house in Kentucky as well as strategies and details related to the Passive House Standard.
6. Advanced Framing. Use lumber smarter to reduce waste and thermal bridging; save materials and money on any residential project.
7. What's Lead Got To Do With It?! New EPA regulations affect all builders doing rehab, weatherization and deconstruction. Learn how the requirements affect site management and volunteer coordination for Habitat projects and ReStores.
8. Green HVAC Technologies for Residential Use. Energy efficient HVAC technologies that were previously developed in Europe and Asia are making their way to the US and widening the scope of options available. New methods of integrating cooling, domestic water heating, variable speed compression technology, and geothermal technology will be explored. Salient changes contained in IECC 2009 will also be discussed.
9. Sealed and Conditioned Crawlspaces. Crawlspaces with proper grading, wall insulation and a sealed vapor barrier protect a home from undue moisture, save energy, are easier to build, retain ducts within conditioned space and provide better indoor air quality. This sometimes contentious topic is not only doable but desirable in Kentucky. Hear how they are doing it in Louisville. Bring your questions and doubts so all can learn from your experience!
10. Deconstruction. Learn from our Habitat Deconstruction Managers in Lexington and Louisville about how to make income while saving materials from the landfill. How code affects the reuse of materials in new construction will be covered. Bring your creative ideas and brainstorm!
11. Advanced Lighting & ENERGY STAR Appliances. Compact florescent lights, light emitting diodes fixtures (LED's) and ENERGY STAR criteria for appliances are discussed. The Cree LED partnership will be introduced.

12. KHC Minimum Design Requirements & Green Technology Preferences. Learn about the Minimum Design Requirements to participate in Kentucky Housing Corporation's programs and KHC preferences for developers using green techniques and Energy Star products.
13. Ventilation & Minimized HVAC for High Performance Homes. High performance homes such as Passive Houses can avoid the cost of conventional HVAC systems and use a simple, small, balanced ventilation duct system to deliver heating and cooling without requiring a conventional heat pump or furnace.
14. Sustainable Infrastructure and Low Impact Development. This overview of Low Impact Development focuses on a neighborhood development project in Warren County which is being designed around and reusing an existing stormwater detention basin as a community focus. The physical and social infrastructure—both the groundwater recharging strategies and the planned neighborhood association and the philosophy behind it—will be shared.
15. Passive House Intensive: How to Build a Passive House (all day) – See description at top of page.
16. Lunchtime Roundtable on Group Purchasing (Optional)
In this informal discussion intended for Habitat construction folks, we will brainstorm on ways to order, secure and/or distribute free and reduced cost products with an aim of securing high-performing durable, healthy, environmentally sensitive and energy-efficient products.
17. Home Owner Education & Homeowner Manuals. The house is one thing, but who steers the ship? A homeowner's understanding of how their home operates as a whole is essential to it being well maintained and loved in the long run. Education is the natural companion to energy efficient, healthy homes. Programs to encourage water and energy conservation through user behavior are also discussed.
18. Home Gardens, Food Security, Health and Community. Food security and access to healthy food is a real issue for low-income families. Growing food at home is not only fun, but supports learning, health and relationships, can provide an income stream, and create a real connection with the earth. Edible landscaping can even cut out the waste and tedious task of maintaining the lawn! Help plan for gardens.
19. Green Marketing. A commitment to building green homes can attract new sponsors and a different bread of volunteers. Lexington Habitat is developing a 'Green Partner' program to capitalize on the widespread interest in greening. Improve your results by using tools such as social networking sites to spread the word. Overcome consumers' skepticism and wariness of green washing by providing proof of your homes' performance.