

Yes you can build a low-cost 'green' house

September 7 2010, By Andy Mead

The greenest house in Lewis County, Ky., is a pleasant shade of blue -- and a model for future low-income housing. It is LEED-certified by the U.S. Green Building Council, which means it is an energy-efficient, durable and healthy place to live.

"I really like it," said Melissa Evans, a county schools employee who bought the 1,120-square foot [house](#) and plans to live there with her 10-year-old daughter, Jaycee.

The sale price, offset somewhat by a grant, was \$90,000, with low interest rates and the promise of lower utility and maintenance costs in the future.

The house was built by a non-profit organization called People's Self-Help Housing Inc., which has been building low-income houses in the county since 1982.

People's has built and sold 275 houses, and it built and manages 120 rental units.

Unlike Habitat for Humanity, People's hires people to build houses.

"We don't have a lot of resources in Lewis County as far as people and businesses, so our goal is to train local folks and provide jobs," said Dave Kreher, People's executive director.

A couple of years ago, on People's 25th anniversary, the board of

directors decided that new houses had to be more [energy](#) efficient to offset rapidly increasing utility rates.

"People can afford the financing to buy the homes but they can't afford to pay the utilities," Kreher said.

Recent People's houses have been Energy Star-rated and use about one-third less energy than standard houses of their size. There also have been a couple of homes that heat water and produce some electricity from solar rays.

There are only two LEED houses officially listed in Kentucky, a silver-rated house in Lexington that was built in 2006, and a gold-rated house in Covington that was completed earlier this year.

The house in downtown Vanceburg will be No. 3, and it has enough points to qualify for a gold rating (the scale is certified, silver, gold and platinum).

Tom Fern, state director of rural development for the U.S. Department of Agriculture, said the house is an important step in helping people with low incomes "achieve their dream of home ownership" and helps keep them in those homes.

He noted that Lewis County -- which is in northeastern Kentucky and has a population of about 14,000 -- is one of 43 counties in the state where poverty is considered persistent. In 2008, he said, Vanceburg's median income was less than \$21,000, or about half the state average.

LEED certification was sought for the Rowley house because People's realized that its recent houses were good enough to qualify, Kreher said.

He said that he is not sure that certification will be sought for future

houses because of the extra cost, but that most of the things that earned points for the LEED rating can become standard in other homes.

They include:

- **Durability:** The siding is fiber cement, which lasts longer than regular siding and holds paint longer.
- **Insulation:** The walls are built with two-by-six studs instead of two-by-four. That saves money because fewer studs are needed, and more insulation can fit in the walls. The roof trusses are raised where the roof meets the wall, also to accommodate more insulation.
- **Water:** The house has plumbing fixtures, such as dual-flush toilets, that will require less water. The yard is small and has drought-tolerant plants.
- **Equipment:** Lights, washer, dryer, fans and refrigerator all are [Energy Star](#) certified and will use less [electricity](#).

Greg Miller, People's director of design and construction technologies, said that even the house's location will save the homeowner money and go easy on the environment.

"It's within walking distance or a short drive from a lot of things," he said. "Being here in downtown Vanceburg, there's a grocery, there's the library, the police department, the fire department, most of your day-to-day needs."

The cost to build the house was about \$115,000, Miller said.

But some of the costs were higher because carpenters and other workers weren't familiar with techniques like using two-by-six studs. He thinks the house could be built again and come in much closer to \$90,000.

And, he said, it is a house that will last.

"We're not using the cheapest material, but the most durable material," he said. "So over the lifetime of the house, it will be cheaper for the homeowner."

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