

ENERGY SMART HOME BUILDERS ANNOUNCE PLANS FOR LEED CERTIFIED RESIDENTIAL SUBDIVISION

Energy Smart Home-Builders (ESH) has announced intentions to build the nation's first net-zero energy community. ESH plans to build 132 LEED certified homes in a suburb of Chicago, Illinois. The planned homes will use state-of-the-art design, energy efficient materials, and renewable energy systems to reduce and possibly eliminate energy costs. The community will use a rating system that measures the actual performance of the homes, rather than simply the design.

Prairie Ridge Estates

This is the first planned community of custom-designed net-zero energy single-family homes. While net-zero energy homes have been constructed before, the upfront cost has been seen by developers as a deterrent to large scale development. Construction costs of such energy efficient homes are estimated at as much as four times above traditional home construction.

The Prairie Ridge Estates project, however, directly challenges that assumption. ESH has chosen New Lenox, IL, a middle-class suburb of Chicago for the project. To meet the pricing expectations of the community, ESH enlisted architects to redesign the "typical house" to focus on energy efficiency and reduce consumption. After more than a year of design and planning, ESH and its architect created the model home design.

ESH estimates the cost to develop a home of this type to be comparable to traditional construction costs. In addition, the expected gains from lower—or no—utility costs for future homeowners provides a concrete fiscal incentive.

ESH is proposing to break ground this month and expects construction of model homes to be completed later this year.

Rating the Homes

While ESH has spent a great deal of effort on a home design that estimates net-zero energy usage, the developers have stated their intent to have the con-

structed homes rated by "LEED for Homes" to ensure that the actual constructed homes meet expectations.

LEED for Homes is a national third-party certification system for energy efficient, healthy, green homes that launched in February 2008. It is a voluntary rating system designed to distinguish the leaders and innovators in the market, and it is considered by some to be the most rigorous national program available today. LEED for Homes measures "green" home-building performance based on eight categories: site selection, water efficiency, materials and resources, energy & atmosphere, indoor environmental quality, location & linkages, awareness & education, and innovation. Within each of these areas, projects earn points toward certification. LEED has four levels of certification: Certified, Silver, Gold, and Platinum, with Platinum representing the highest level of achievement.

LEED for Homes requires that a home meets the performance requirements under ENERGY STAR for Homes as validated through measures, performance testing and often a Home Energy Rating System, which verifies that it is at least 15 percent more efficient than an average, code-built home. Many programs have similar requirements, but LEED for Homes requires a level of rigor and performance testing surpassing most other programs.

LEED measures the building as constructed, not just as designed. It measures the building's actual performance rather than intentions, providing assurance that the home truly is a green home. This additional rigor in the standard will hold the builders to a higher standard and require a diligence and commitment on their part throughout the development process.

Conclusion and Implications

The increase in green and LEED certified projects has increased dramatically in the last few years. An ambitious project such as Prairie Ridge Estates has the potential to greatly impact the direction of residential development as the U.S. begins to move out of the current economic crisis. (B. Flanagan)