

# **Green Homes are Better Homes**

#### What is a Green Home?

Conventionally-built homes can be designed and constructed simply or lavishly, and are required to provide at least the minimum amenities, comfort and systems as prescribed by local construction codes. In most cases, minimal time and effort is spent addressing the impact that the home will have on the homeowner's pocketbook from inefficient use of water and energy. Still less time is spent addressing the health and quality of indoor air, the home's interactions with local and regional ecosystems, and the home's potential impact on the local economy through locally-sourced materials. A properly planned, designed and built green home address all of these areas, thus making green homes more desirable places to live, and more desirable structures for governments to promote.

#### **Consumers Prefer a Green Home**

With sustained growth even in a down economy, green homes are connecting with home-buyers and homeowners. 70% of home-buyers are more inclined to buy a green home in a down economy. The 2012 Yahoo! Real Estate Home Horizons study finds that demand for green homes, energy-efficient appliances and low-carbon impact home building materials will reach a tipping point in America in 2012. A recent study on the California market finds that increased demand and higher expectations can also lead to higher home valuation.



The top three benefits of living in a green home according to green home owners.

The U.S. Green Building Council works with advocates and partners nationwide to advance the application of green homebuilding techniques through education, technical resources and the LEED rating systems. Advocates are working on multiple fronts to realize an improved infrastructure for proper valuation of green homes that is critical for catalyzing market transformation. Alongside efforts focused on action at the federal level, advocates are focusing on ways to green the multiple listing service (MLS).



Green homes employ designs, materials and technology that are readily available today to create a more comfortable home with a reduced impact on the environment while enhancing human health and saving energy, water and money.

## **Overlooked Impacts of Housing**

Policymakers are beginning to take notice of and action on housing impacts that have been long overlooked. Residential units consume 23% of the nation's energy<sup>4</sup> and are responsible for 15.4% of U.S. greenhouse gas emissions,<sup>5</sup> much of which can be eliminated by the use of smarter building systems and technologies. Green homes can help restore aquifer recharge, reduce the heat island, and curtail wastewater pollution into rivers and streams – whereas most structures contribute to these environmental challenges.

Green buildings can reduce energy consumption by 50%,  $^6$  water consumption by 40%, and  $CO_2$  emissions by as much as 39%. Green homes are also designed to enhance the quality of indoor air,

improve indoor comfort through efficient and appropriately-sized systems, and minimize construction waste and debris headed to landfills. Many green homebuilding practices can create direct cost-savings for the homeowner, starting in design and construction and continuing throughout long-term occupancy and ownership.

<sup>&</sup>lt;sup>1</sup> McGraw-Hill Construction. SmartMarket Report. May 2008.

<sup>&</sup>lt;sup>2</sup> Yahoo! Real Estate. <u>Home Horizons 2012</u>. December, 2011.

<sup>&</sup>lt;sup>3</sup> Kok, Nils. The Value of Green Labels in the California Housing Market. July 2012.

<sup>&</sup>lt;sup>4</sup> U.S. Energy Information Administration. <u>Annual Energy Review 2010</u>. October 2011.

<sup>&</sup>lt;sup>5</sup> U.S. Environmental Protection Agency. <u>Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2010</u> (EPA 430-R-12-001). April 2012.

<sup>&</sup>lt;sup>6</sup> Turner, C. & Frankel, M. Energy Performance of LEED for New Construction Buildings: Final Report. March 2008.

<sup>&</sup>lt;sup>7</sup> Katz, G. <u>The Costs and Financial Benefits of Green Building</u>: A Report to California's Sustainable Building Task Force. October 2003



## **A Transforming Market**

Despite a depressed housing market, green homes are increasingly available across America. In 2011, green homes made up 17% of the residential construction market, and the industry is expected to grow fivefold by 2016. Building codes, too, are evolving to incorporate these new best-practices.

Local and regional green homebuilding programs – and LEED in particular – are driving a deeper market shift by engaging homeowners, homebuilders and the market in expanding both the supply of green homes and an important and growing demand. These programs reward leadership and provide third-party verification that green building best-practices have been achieved.

#### Green for All

Affordable housing developers have been prolific in spreading the benefits of healthy, efficient and low impact housing to low-income communities. Homes that save energy and water also save money that can put food on the table, and provide relief for transportation costs and other critical needs. Homes that circulate healthy air and make ample use of daylight can also improve human health. This type of healthy, safe, efficient and cost-effective housing provides families and individuals a much-needed boost in today's challenging economy.

State housing finance authorities have been major contributors to the proliferation of affordable green homes through their growing preference for a green home label like LEED in return for funding from Low Income Housing Tax Credit dollars. Still, state and local governments can do much more.<sup>9</sup>

## Public Policy to Advance the Benefits of Healthy, High-Performance Homes

While there will always be market leaders that push the envelope towards more efficient, durable and sustainable homes, policymakers can leverage existing, credible green homebuilding programs to spread the benefits of greener homes with all homeowners in their community. Policymakers rely on the established track record of the LEED for Homes green building rating system and its third-party verification model to ensure that incentives for these responsible homes are being well spent.

An investment in a green home is an investment in community health and in local businesses that can sustain twenty-first century jobs by providing green building products, materials and services. States and localities are implementing a variety of incentive programs that promote green homebuilding in their communities. The State of New Mexico and the City of Cincinnati are two leading examples.

At the federal level, the New and Efficient Homes Tax Credit (IRS Code Section 45L) has spurred important growth in energy efficient homes nationwide at modest costs. The tax credit, available to builders that build homes designed to beat 2004 energy efficiency standards by 50%, has helped nearly 150,000 energy efficient homes come to market in its first six years. As mentioned above, the Low Income Housing Tax Credit (LIHTC) provides one of the most important means to support the development of affordable green homes nationwide.



#### **LEED for Homes**

With more than 80,000 residential units registered to certify in the <u>LEED for Homes</u> program and more than 22,000 units already certified, the residential marketplace is demanding LEED. <sup>10</sup> This green building rating system was designed to accommodate the residential builder and developer. LEED for Homes applies to newly-constructed single-family homes, multi-family buildings, and mixed-use buildings up to 6 stories.

The rating system is an engaging design instrument that compels green building leadership in areas of energy, sites, water, waste, materials and innovation. The certification program relies on qualified on-site third-party audits to verify compliance that also integrate easily into the builder process.

All levels of LEED certification require initial achievement of important minimum thresholds in energy and water efficiency, indoor environmental quality, responsible materials selection and project site factors prior to attempting to earn credit for successfully implementing further green building measures in these and other areas. The rigor associated with the LEED rating system and certification program provide the best available assurance that a green home will be healthier, more efficient and more environmentally responsible than a home not built green.

<sup>10</sup> For more information on USGBC's LEED for Homes program visit <u>www.leedforhomes.org.</u>

<sup>&</sup>lt;sup>8</sup> McGraw-Hill Construction. <u>2011/2012 Green Home Builders and Remodelers Survey</u>. February 2012.

<sup>&</sup>lt;sup>9</sup> For more information on USGBC advocacy efforts that advance the many benefits of green homebuilding, see the following campaigns: <u>Value Healthy & Efficient Affordable Housing</u>, and <u>Highlight Green Homes by Greening the MLS</u>.