Benefits of Green Homebuilding

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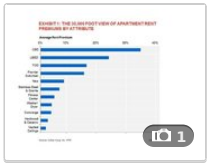
Photo credit: Rob Moody

Benefits of LEED-Certified Homes: Savings, Value, Well-Being, Trusted



Homes don't merely have an outsized impact on our personal lives, they are also a critical piece of the broader building industry. The National Association of Home Builders reports that as of the first quarter of 2014, housing contributed $2.47 trillion to gross domestic product.

"Since 2005, the green share of new single family residential construction has grown dramatically— increasing from 2% in 2005 to 23% in 2013. This 23% market share equates to a $36 billion market opportunity.[1]"

Savings: Reducing Energy & Water Consumption

The typical household spends about $2,150 a year on residential energy bills[2].

LEED-certified homes are:

- Built to be energy-efficient, ensuring that the home can be comfortably heated and cooled with minimal energy usage;
- Individually tested to minimize envelope and ductwork leakage;
- Designed to minimize indoor and outdoor water usage;
- Predicted to use an estimated 30 to 60% less energy than a comparable home built to International Energy Conservation Code.

Based on the average HERS ratings for each level of LEED certification, these homes could potentially see energy reductions of:

- Up to 30% (for LEED Certified homes)
- Approximately 30% (for LEED Silver homes)
- Approximately 48% (for LEED Gold homes)
- 50-60% (for LEED Platinum homes)

LEED for Homes projects must meet ENERGY STAR for Homes, which can cut energy bills by 20%[3], saving between $200 to $400 annually, adding up to potentially thousands of dollars saved over the seven or eight years that the typical homeowner lives in a home. Some homes see savings of of to 60%, and energy efficiency in apartments could save $3.4 billion.[4].

Value: Green Homes are Dream Homes

Researchers found that between 2007 – early 2012, the value of homes in California with a green certification label was an average of 9% higher than comparable, non-certified homes[5].

LEED certification is near the top of the list in a ranking of individual attributes of apartment rentals, second only to placement near a central business district, according to a CoStar Group, Inc. analysis. See Slideshow image above[6].

Consumers ranked green/energy efficiency as their top requirement for their dream homes

- 60% said that green and energy efficient are amenities they want in their next home[7]
- A 2008 study conducted by McGraw-Hill Construction and USGBC found that the mean price of green homes purchased by survey respondents was $296,000; the median was $239,000

Green homes can be built for the same cost as — and even less than — conventional homes.

- Sometimes there are upfront costs which on average are 2.4% and can be quickly recouped with the homeowners saving money for the rest of the home's lifespan[8]
- Green homes have a higher resale value and are on the market for less time than comparable conventional homes. The Earth Advantage Study in 2011 found that, on average, green-certified new homes sold for 8% more than non-certified green homes. Resales of existing green homes sold for an average of 30% more than conventional homes[9]

Well Being

LEED-certified homes require proper ventilation, high efficiency air filters and measures to reduce mold and mildew.

Trusted

Each LEED home undergoes onsite inspections, detailed documentation review, and as-built performance testing.

Green Home Market

- More than 173,600 units have been registered under the LEED for Homes rating system. 63,000 of those units have been certified under LEED for Homes; nearly half of those units are in the affordable housing sector.[**]
- McGraw Hill Construction estimates that the green market was 2% of residential starts in 2005; 6-10% in 2008; and will be 12-20% by 2013[11]
- 42% percent of LEED-certified home units fall in the affordable housing sector

Environmental Impact of the Residential Market

Energy:

- Households use about one-fifth of the total energy consumed in the U.S. each year; the residential sector is responsible for 21% of the nation's carbon dioxide emissions[12]
- Since 1985, residential energy consumption, measured as total energy (i.e., including electricity losses), increased overall by about 34%[13]
- It's expected that by 2016, 90% of all residential construction will have energy efficient features[14]
- To date, more than 1 million ENERGY STAR-qualified homes constructed save consumers an estimated $200 million annually in utility bills[15]

Water:

- Total U.S. residential energy consumption is projected to increase 17 % from 1995 - 2015[16]
- Total residential water use: 29.40 billion gallons per day or 7.1% of U.S. total water use[17]

Waste:

- Total estimated construction and demolition (C&D) generation amount for residential construction in 2003: 10 million tons. Average residential C&D debris generation rate in 2003: 4.39 pounds per square foot[18]

For more information, please read our LEED in Motion: Residential report (http://go.usgbc.org/homes)

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