

The Value of Green Buildings

Background

The construction of green buildings has grown steadily, and rapidly, representing 25% of all new construction in 2012. Justification for building green has ranged from a desire to leave a smaller footprint on the earth, to saving energy, to attracting top clients. A lingering question after the construction is often - was it worth it? This document is intended to bring together and share information on the topic of the value of a green building.

Points to consider

Topic	Discussion with citations
Break-even point - hotels	The operational savings in energy and water consumption of 25% sets the break-even point including all construction costs at five to six years. Factoring in Federal and State incentives can cut that time frame down to one year. (United States Green Building Council, 2010)
Costs	Where projects target higher or more complex levels of green building, there may be added upfront costs of 1-4% but these costs can be recouped relatively quickly, often within the first few years. Investing in high energy performance equipment and high insulated building materials has the shortest pay back from a cost standpoint, and generally, high-performance buildings and building green reduce operating costs and increase the net operating income for the life of the building. (United States Green Building Council, 2012)
Influence of mechanical systems	Additionally, incorporating cost effective technologies and combining entire building systems is the next area of growth for the industry. Providing building automation systems in areas previously controlled manually by the guest or by the hotel staff can add to the bottom line. (United States Green Building Council, 2012)
Residual value	<ul style="list-style-type: none"> • "Based on a sample of sale prices for 559 Energy Star- and 127 LEED-certified buildings, we find price premia of 26% and 25%, respectively with higher levels of certification achieving higher premia." (Fuerst, An investigation of the effect of eco-labeling on office occupancy rates, 2010) • Respective sale price premia for Energy Star and LEED labeled office buildings are 18% and 25%. (Fuerst, 2010) • Selling prices of green buildings are higher than otherwise identical buildings by about 16%. (Eichholtz & Kok, 2010) • "For every dollar you can add to the bottom line of a San Francisco hotel, more than \$11 is added in value...USGBC also reported a decrease in operating costs of as much as 9% for sustainable commercial buildings and an increase of 7.5% in value." PKF Capital Managing Partner Henry Bose explained at a conference on green hotels in San Francisco. (Green Hotels, 2008) • "Higher occupancy rates in our green buildings have enabled us to command a premium for these properties if and when they are sold," reports Jerry Lea, a senior vice president at Hines, one of the largest real estate development, investment and management companies in the world. (NRDC) • Energy Star-labeled and LEED-certified properties sell at premiums of \$30 to \$129/ft² compared to comparable properties. (Wiley, 2010)
Revenue	<ul style="list-style-type: none"> • Comparison of the performance 93 LEED-certified hotels (representing the population of such hotels in 2012) to that of 514 comparable competitors finds that the certified hotels obtained superior financial performance as compared to their non-certified competitors, for at least the first

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two years after certification. (Walsman, Verma, & Muthulingam, 2014)

- There is a rental premium of approximately 6% for LEED and Energy Star certification. (Fuerst F. a., 2009)
- Office buildings with Energy Star or LEED eco-labels obtain rental premia of approximately 3-5%. (Fuerst, 2010)
- Dual certification (Energy + LEED) produces an additive effect. (Fuerst, 2010)
- Green-labeled buildings achieve significantly higher rents - estimated at 7.3 to 8.6% for Energy Star properties and 15.2 to 17.3% for LEED - certified properties. (Wiley, 2010)
- Buildings with a "green rating" command rental rates that are roughly 3% higher per square foot than otherwise identical buildings. Premiums in effective rents are even higher - above 7%. (Eichholtz & Kok, 2010)

Occupancy
levels

- Occupancy levels are higher by approximately 10 to 11% for Energy Star properties and 16 to 18% for LEED - certified properties. (Wiley, 2010)
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