GREEN BUILDING FACTS

Market Impact

- By 2015, an estimated 40-48% of new nonresidential construction by value will be green, equating to a $120-145 billion opportunity[1].
- 1.8 billion square feet of building space are LEED-certified (as of March 2012).
- The green building market included 2% of non-residential construction starts in 2005; 12% in 2008; and grew to 28%-35% in 2010[2].
- The construction market accounts for 5.5% of the $14.7 trillion U.S. GDP[3]. This includes all commercial, residential, industrial and infrastructure construction.
- With energy efficiency financing having the potential to soar from $20 to $150 billion annually, over one million jobs could be created[4].
- Areas with the greatest proportion of green office buildings relative to the total stock of buildings in the market: Washington, DC; Oregon; Vermont; Washington; Colorado; Massachusetts; Maine; New Hampshire; Illinois; California[5].
- LEED is referenced in project specifications for 71% of projects valued at $50 million and over[6].

Energy

- Energy use by sector:
  - Buildings: 41%
  - Industrial: 30%
  - Transportation: 29%[7]
- Buildings are one of the heaviest consumers of natural resources and account for a significant portion of the greenhouse gas emissions that affect climate change. In the U.S., buildings account for 38% of all CO2 emissions [8].
- Buildings represent 73% of U.S electricity consumption[9].
- Green buildings consume less energy:
  - Compared to the average commercial building, the LEED Gold buildings in the General Services Administration's portfolio generally[10]:
    - Consume 25% less energy and 11% less water
    - Have 19% lower maintenance costs; 27% higher occupant satisfaction; 34% lower greenhouse gas emissions
  - LEED buildings avoided 0.35% of total U.S. CO2 emissions in 2011. The percentage of CO2 avoidance attributed to LEED buildings is estimated to be 4.92% in 2030[11].

Water

- Buildings use 13.6% of all potable water, or 15 trillion gallons per year[12].

- The industry expects that water-efficiency efforts will decrease energy use by 10-11%; operating cost savings of 11-12%; and water reductions of 15% on average[13].

- Retrofitting 1 out of 100 American homes with water-efficient fixtures could avoid approximately 80,000 tons of greenhouse gas emissions (the equivalent of removing 15,000 cars from the road for one year)[14].

- A month's supply of electricity for 43,000 households could be saved if 1% of American homes replace an older toilet with a WaterSense® toilet[15].

Materials

- Buildings use 40% of raw materials globally (3 billion tons annually)[16].

- The EPA estimates that 170 Million tons of building-related construction and demolition (C&D) debris was generated in the U.S. in 2003, with 61% coming from nonresidential and 39% from residential sources[17].

- The EPA estimates that 250 million tons of municipal solid waste was generated in the U.S. in a single year[18].

- Green buildings consume less energy and fewer resources:
    - LEED projects are responsible for diverting over 80 million tons of waste from landfills, which is expected to grow to 540 million tons of waste diversion by 2030[19].

Existing Building Market

- Square footage of LEED-certified existing buildings surpassed LEED-certified new construction by 15 million square feet on a cumulative basis.

- Approximately 61% of all construction projects are retrofit projects[20].

- The market share of retrofit projects that are green is expected to rise to 20-30% in 2014[21].

- By 2015, the green share of the largest nonresidential retrofit and renovation activity will more than triple, growing to 25-33% of the activity by value—a $14-18 billion opportunity in major construction projects alone[22].

- 39% of building owners are planning to pursue green certifications for existing buildings by 2013[23].

- 88% of Building Information Modeling (BIM) users surveyed who are not currently using Green BIM expect that within two years their firms will use BIM on a green retrofit project[24].

- One billion square feet of buildings are demolished and replaced with new construction each year[25].

Industry Sectors with the Highest Penetration of Green Building[26]

- Education

- Health care
- Office

What's Driving Green Building?

These factors are driving dramatic green building market growth[27]

- The economy
- The largest nonresidential projects by size are more frequently green
- Mandates and policies

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