



# Green Building Fact Sheet: March 2006

**The annual market for green building in products and services is \$7 billion, representing 37% growth over the prior year (based on 2004 figures).**

## **U.S. Green Building Council:**

### **Membership**

- 6000 member organizations, including corporations, governmental agencies, nonprofits, etc.
- USGBC's membership has grown by 1000% in the past four years.

### **LEED Green Building Rating System™**

- LEED for new construction (LEED-NC) was first released in 2000
- New LEED rating systems addressing Commercial Interiors (LEED-CI) and Existing Buildings (LEED-EB) were released in 2004
- Over 531 million square feet of commercial building space has been registered or certified under LEED
- A total of 2,969 registered building projects are currently LEED-NC registered, and an additional 337 have completed certification
- 259 building projects have registered with LEED-CI and an additional 40 have completed certification.
- 157 building projects have registered with LEED-EB and an additional 26 have completed certification.
- 144 building projects have registered with the LEED for Core & Shell (LEED- CS) pilot program and an additional seven have completed certification.
- There are LEED projects in all 50 states and 12 countries
- Owners of LEED-registered and certified projects represents a diverse cross-section of the industry.
  - 25% are owned by for-profit corporations
  - 24% are owned by local government
  - 22% are owned by state & federal government
  - 19% are owned by nonprofit organizations.
- Project types of all LEED-registered and certified projects by square footage includes:

- 25% Mixed use
- 16% Commercial Office
- 8% Higher Education
- 6% K-12

### **Education & Accreditation**

- 31,976 professionals have been trained through LEED workshops
- 22,624 have become LEED Accredited Professionals

### **Benefits of Green Building: Cost Savings**

- *The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force* dated October 2003 and based on LEED buildings in the State of California states that an upfront investment of 2% in green building design, on average, results in life cycle savings of 20% of the total construction costs – more than ten times the initial investment.
- According to U.S. Environmental Protection Agency (EPA) research, tenants can save about 50 cents per square foot each year through strategies that cut energy use by 30%. This can represent a savings of \$50,000 or more in a five-year lease on 20,000 square feet.
- A study done for the California Board for Energy Efficiency Third Party Program found that sales in stores with skylights were up to 40% higher compared to similar stores without skylights.
- A study done by the cost consultants David Langdon Adamson concluded that the cost per square foot for buildings seeking LEED Certification falls into the existing range of costs for buildings not seeking LEED Certification.

### **Benefits of Green Building: Productivity**

- A study by Carnegie Mellon University measuring the relationship between increased lighting control and productivity showed an average increase of 7.1% in productivity.
- Average employee relocation within a building averages 25% annually for most commercial spaces at a cost of about \$2,500 each. Flexible design features often found in integrated green buildings can help cut employee relocation costs by 90%.
- Average annualized costs for personnel amount to \$200 per square foot, compared to \$20 for bricks and mortar costs and \$2 for energy costs.

## Benefits of Green Building: Health

- People in the US spend about 90% of their time indoors.
- EPA studies indicate indoor levels of pollutants may be two to five times higher – and occasionally more than 100 times higher – than outdoor levels.
- An investigation of 20 studies with 30,000 subjects found significant associations between low ventilation levels and higher carbon dioxide concentrations – a common symptom in facilities with sick building syndrome.

## Size and Impact of the U.S. Built Environment

### U.S. Construction *market* in 2001 (includes all commercial, residential, industrial)

- Represents 20% of U.S. economy  
*Source: National Institute of Standards and Technology and the National science and Technology Council: Construction Industry Statistics, 1995*
- Comprises 12.7% of the \$10 trillion U.S. GDP. (Includes all commercial, residential, and industrial construction)  
*Source: 2003 U.S. DOE Buildings Energy Databook*

### Energy consumption

- Buildings represent 39% of U.S. primary energy use (includes fuel input for production)  
*Source: 2003 U.S. DOE Buildings Energy Databook.*

### Electricity consumption

- Buildings represent 70% of U.S consumption  
*Source: 2003 U.S. DOE Buildings Energy Databook*

### Water use:

- Buildings use 12.2% of all potable water, or 15 trillion gallons per year  
*Source: U.S. Geological Service, 1995 data.*

### Materials use:

- Buildings use 40% of raw materials globally (3 billion tons annually)  
*Source: Lenssen and Roodman, 1995, "Worldwatch Paper 124: A Building Revolution: How Ecology and Health Concerns are Transforming Construction," Worldwatch Institute.*

### Waste:

- The EPA estimates that 136 million tons of building-related construction and demolition (C&D) debris was generated in the U.S. in a single year  
*Source: <http://www.epa.gov/epaoswer/non-hw/debris/about.htm>, and U.S. EPA Characterization of Construction and Demolition Debris in the United States, 1997 Update.*
- Compare that to 209.7 million tons of *municipal solid waste* generated in the same year. *Source: U.S. EPA Characterization of Municipal Solid Waste in the United States, 1997 Update. Report No. EPA530-R-98-007*