

## GREEN BUILDING FACT SHEET

## WOOD AND THE GREENING OF COMMERCIAL AND RESIDENTIAL BUILDINGS

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**BACKGROUND**

The growing interest in sustainable building design and construction has fostered an emergence of green building rating systems. Currently, multiple rating systems are available for commercial, multi-residential buildings, and single family dwellings. The best of these systems use a coordinated design/build process to reduce the impact of a building. They require energy efficient and environmentally responsible choices in areas such as building materials, heating, cooling, and water systems.

Since green building design is just beginning to mature as a building practice, and science-based practices are in their infancy, no single program is able to claim superiority. Each green building system has advantages and disadvantages. At this stage, it is important to keep green building options open to encourage exploration and further research into energy efficient, sustainable design, and to consider all viable approaches.

**ISSUE**

Building rating systems have been developed as voluntary measures, although mandates are becoming more frequent. A common goal is to transform the market by increasing demand for “green” buildings that have a reduced impact on the environment. Although an admirable start, it should be noted that many of these ratings systems lack more-through, science-based, environmental analysis such as Life Cycle Assessment (LCA).

LCA is important because it measures or quantifies exactly how an individual product, assembly, or whole-building affects the environment during each phase of its life: extraction, manufacturing, transportation, installation, use and disposal (or re-use). Users can compare building products and make science-based choices using well-defined environmental impact indicators.

**WHAT YOU NEED TO KNOW**

There are currently several green building ratings systems in use in the United States.

**NAHB Green Building Guidelines:** Originally developed by the NAHB Research Center, with input from more than 50 stakeholder groups, the NAHB Green Home Building Guidelines have been revised and will be published as an ANSI American National Standard in early 2008. The revised standard provides a comprehensive rating system. NAHB homebuilder associations can often use the standard without changes to their own green building programs.

**Green Globes™:** Operated by the Green Building Initiative (GBI) Green Globes is a web-based commercial green building assessment tool that identifies a commercial building's environmental strengths and weaknesses, instantly recommends sustainable design improvements, and automatically generates links to engineering, design and product sources. Green Globes incorporates LCA into its rating system. Green Globes will be published as an ANSI American National Standard in 2008. Go to [www.thegbi.org](http://www.thegbi.org) for more information

**LEED®:** The United States Green Building Council (USGBC) has developed the Leadership in Energy and Environmental Design (LEED) rating systems for new construction (LEED-NC), existing buildings (LEED-EB), commercial interiors (LEED-CI), core and shell projects (LEED-CS), neighborhood development (LEED-ND), and homes (LEED-H). USGBC is currently reviewing LEED-NC to consider ways to better reward the renewability of wood and recognize the benefits of wood certified under a wide variety of forest certification programs. Furthermore, USGBC is currently studying how to incorporate LCA into LEED.



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AMERICAN FOREST & PAPER ASSOCIATION  
1111 Nineteenth Street, NW, Suite 800  
Washington, DC 20036  
[www.afandpa.org](http://www.afandpa.org)

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