

EPA GREEN BUILDING Strategy



BUILDINGS AND DEVELOPMENT ARE RESPONSIBLE for a broad range of impacts on human health and the environment. EPA has developed numerous programs over the years to address these impacts. While these programs have achieved significant success, EPA recognizes that improved building performance can best be achieved by concentrating on the *whole* building and its impact on its occupants, its surroundings, and the larger environment. Thus, in 2008, the Agency launched the *EPA Green Building Strategy* to enhance coordination of these programs towards the overall goal of facilitating the mainstream adoption of effective green building practices. This strategy is designed to address the whole environmental footprint and life cycle of buildings, including siting and development.

Building-related Impacts

Building-related impacts on the environment and public health reflect a broad range of concerns. Among other impacts, buildings account for:

- Nearly 40% of U.S. energy use.
- About 40% of U.S. carbon dioxide emissions (the primary greenhouse gas (GHG)), along with other GHG and air pollutant emissions.
- Over two-thirds of all non-industrial secondary materials generated in the U.S.
- More than 10% of U.S. freshwater usage.
- Health risks from indoor environments—where Americans spend nearly 90% of their time.

EPA's Strategic Role

The goal of the *EPA Green Building Strategy* is to facilitate the mainstream adoption of effective green building practices. Recognizing that many other organizations are already working toward this goal, EPA will focus primarily on two roles. These roles, described below, will be undertaken with a spirit of partnership, collaboration, and consensus-building with others who share our green building interests.

What is Green Building?

At EPA, we define *green building* as the practice of maximizing the efficiency with which buildings and their sites use resources—energy, water, and materials—while minimizing building impacts on human health and the environment, throughout the complete building life cycle—from siting, design, and construction to operation, renovation, and reuse.

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Strengthening the Foundations of Green Building

The green building field is growing rapidly, thanks to the support of many public, private and non-profit organizations, including EPA. Many building professionals are using voluntary green building programs and standards to guide their efforts. *Green building* is not a static term but one which will continuously develop as new approaches evolve to reducing the environmental footprint of buildings. EPA has the expertise and credibility to raise awareness of green building practices and to work with this emerging field to ensure that it promotes continual improvement and employs practices that most effectively advance environmental and human health protection. The *Green Building Strategy* commits EPA to strengthening the scientific, technical, economic and institutional foundations of green building. This includes working with other organizations and interested stakeholders to continually advance green building standards and metrics. Recognizing that much of the green building progress, to date, has been built upon breakthroughs in technology, practice, or understanding, EPA also will enhance the Agency's support for green building research and development. This research is needed to ensure green building product quality and reliability, advance knowledge of environmental and health issues associated with buildings, and increase understanding of the economic costs and benefits of green building. EPA will support research through our own programs and laboratories and through collaboration with other academic, governmental and research organizations.

Raising Public Awareness of Building-related Impacts and Opportunities

As the nation's leading environmental agency, EPA has a unique platform for communicating with the public, other government agencies, and key stakeholders. EPA will increasingly use that platform to help raise awareness about the environmental impacts and opportunities associated with buildings, so that consumers and other organizations can make better informed decisions when purchasing building-related products or services. Recognizing that most of the attention to green building, to date, has focused on new commercial and public buildings, EPA will increase its focus on untapped opportunities for greening existing buildings and homes, which comprise the majority of the U.S. building market. In particular, the Agency will focus on providing green building information and opportunities to homeowners. While surveys suggest that many people would like to reduce the environmental impacts of their homes, many either do not know where to start or are overwhelmed by the breadth of information available. One additional way in which the Agency will raise awareness is by continuing to advance the greening of our own facilities and communication about these efforts.

Looking Ahead

The *EPA Green Building Strategy* addresses a major sector of the economy that presents significant opportunities for improving environmental and public health protection. By working with others who share EPA's interests and by strategically coordinating the Agency's own building-related programs, EPA will play an important role in bringing about the widespread adoption of effective, high-performance green buildings for the benefit of this and future generations.

For more information about EPA's Green Building Strategy, please visit:

www.epa.gov/greenbuilding