

UTC Chairman sees opportunity for green building in global construction boom

World Business Council for Sustainable Development survey shows lower green construction costs and a need to foster zero net energy construction

The costs and benefits of "green" buildings are misjudged by key players in real estate and construction, according to a new study by the World Business Council for Sustainable Development. The WBCSD reports that such cost and benefit misunderstanding creates a major barrier to more energy efficiency in the building sector.

UTC co-chairs the Energy Efficiency in Buildings project (EEB) with the WBCSD and other companies in the building, equipment and energy industries. The three-year project is intended to develop a roadmap for transforming market structures and practices throughout the building industry. The project supports the construction of buildings that consume zero net energy -- buildings that generate at least as much energy as they expend -- around the world. Zero net energy buildings will also reduce demand by design and are considered highly efficient.

"The global construction boom in the developing world has created a tremendous opportunity to build differently and dramatically decrease otherwise energy demands," said UTC Chairman and Chief Executive George David.

Respondents to a 1400-person global survey estimated the additional cost of building green at 17 percent above conventional construction estimates, more than three times the true cost difference -- about 5 percent. At the same time, survey respondents put greenhouse gas emissions by buildings at 19 percent of the world total. The actual number is 40 percent.

"Existing technologies combined with common sense design can increase energy efficiency by 35 percent and reduce heating costs by 80 percent for the average building in industrialized markets," David said.

Buildings currently represent approximately 40 percent of primary energy use globally. Energy consumption in buildings is also projected to rise substantially in the world's most populous countries and emerging markets, such as China and India.

The study also found that fewer than one in seven industry respondents has participated directly in a green building project. Involvement ranges from 45 percent in Germany to 5 percent in India. About 20 percent of architects, engineers and developers have been involved in green building projects, compared with 9 percent of owners and tenants.

The WBCSD study highlights opportunities to promote green building knowledge and technologies and advance zero net energy construction worldwide. The findings are disclosed in a new report titled "Energy Efficiency in Buildings: Business Realities and Opportunities," which summarizes the first phase of the WBCSD's project.