Future Bright for Green Industry

Green-building market enjoyed renewed development in 2005

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In 2005, the green-building industry experienced significant expansion and growth in the United States. For the first time, Leadership in Energy and Environmental Design for New Construction (LEED-NC) project registrations topped 1,000, adding more than 130 million gross square feet of project area, while, also for the first time, LEED-NC project certifications topped 100, exceeding 150. Meanwhile, the U.S. Green Building Council's (USGBC's) annual Greenbuild International Conference and Expo attracted nearly 10,000 people to Atlanta in November, making it the world's largest green-building event. The number of LEED Accredited Professionals (APs) at the conference exceeded 21,000. LEED-NC Version 2.2 was introduced successfully during the event, as was a simplified documentation and project-management system, LEED Online.

Many events outside the industry promoted green buildings in 2005. Oil prices surged above $50 per barrel and threatened to stay there. In November, the Energy Information Administration published its long-term forecast for oil prices, estimating 2025 oil prices at $54 per barrel (in 2005 dollars), up 65 percent from its year-earlier estimate of $33 per barrel. Increasing oil prices and uncertain supply prospects attributed to geopolitical factors have focused the public's concern on energy conservation in buildings for the first time in a generation.

Even President Bush and Congress got into the act, passing the Energy Policy Act of 2005 (EPACT), which provides dramatically increased incentives for solar and wind power and strong support for energy conservation in new and existing buildings. Although the incentives are scheduled to expire at the end of 2007, many seasoned Washington observers expect them to be extended. President Bush went on the road in mid-February to tout his new focus on ending America's "oil addiction."

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To show that architects understand that steering buildings toward a decrease in energy use is their responsibility, the American Institute of Architects issued its most ambitious policy statement yet, declaring in a December 2005 position paper supporting sustainable design that by 2010, new buildings should reduce current consumption levels by 50 percent.

What does all of this mean for engineering firms? A recent survey of market-growth projections conducted for the USGBC predicted that the education and government sectors, followed by institutional and office buildings, would show the highest growth rates (48 to 65 percent) over the next year.

External factors continue to have a dramatic effect on the construction industry and an indirect effect on the financial viability of green buildings, which carry higher initial costs. Led by a 15-percent cost increase for concrete and steel, commercial-construction costs escalated in 2005 because of higher fuel costs and increased construction

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demand in China, India, and other Asian countries. This means engineers have to embrace integrated design approaches to provide higher-performing buildings with equal or decreased construction costs.

Many engineering firms seek to differentiate their services by increasing the number of LEED APs on their staffs. To stay competitive in the green-building market, firms in the design and construction industries need to move in this direction. Having a strong sustainability program in-house will be one of the few ways consulting engineering firms can hope to attract new talent and keep ambitious engineers on board.

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No one said changing the world would be easy. Engineers, go to work!

Coming to Austin, Texas, Sept. 18 and 19: HPAC Engineering*'s third annual Engineering Green Buildings Conference and Expo. For more information, go to* www.egbregistration.com.