

# GOING GREEN MEANS \$AVING GREEN



## Tapping into green technology saves you money

By Scott H. Lawson

In recent years, there has been substantial growth in environmental awareness in a wide variety of industries. Green technology, green buildings and green products have entered the thoughts and lexicons of professionals worldwide. Major car manufacturers like Toyota, Honda, Lexus, Nissan and Ford constantly strive to maintain a competitive edge in the rapidly growing green automobile market. Even this year's Nobel Prize for Peace was granted, not to someone negotiating a treaty between warring nations, but to people working to make peace between industry and the environment.

What does it mean to be green? According to the California Environmental Protection Agency, green facilities "are designed to meet certain objectives such as protecting occupant health; improving employee productivity; using energy, water, and other resources more efficiently; and reducing the overall impact to the

environment." Being green is more than just a practice, however: it is a process, a culture and a belief system. According to respected entrepreneurial publication *Startup Nation*, "'Green,' 'environmental' and 'sustainable' are more than just labels. They're practices that include every aspect of business — invention, definition, construction, production and the ultimate disposal of the product." With more and more entrepreneurs, CEOs and business owners seeing green, the culture of green business is more prevalent in professional industries than ever before.

But the green movement is hardly a new trend. Long before the first Earth Day in 1970, people and businesses acknowledged the need to care for the environment. So what makes today's green phenomenon different? Until recently, green practices were largely unrefined and primarily associated with technological, social and professional inadequacy. Tech-savvy factories were often the ones that pumped the most pollutants into the air, thriving corporations typically used the most energy to power their facilities, and leaders in key industries inevitably drained natural resources with little concern for the health of their workforce or their community. According to *Fortune Magazine*, "Big business and environmentalists used to be sworn enemies — and for good reason. General Electric dumped toxins into the Hudson River. Wal-Mart bulldozed its way across America.

DuPont was named the nation's worst polluter. The response from the environmental movement: mandate, regulate and litigate." Being big meant being bad... to the environment.

Today, the playing field has changed. The competitive arena for businesses small and large is mandated by their use — or misuse — of the environment. Finally, corporate executives, small business owners and employees alike compete to have the latest green technologies, facilities and products in their industry. Wal-Mart, the world's largest retailer, plans to spend \$500 million dollars in coming years to make its operations more green, according to chief executive Lee Scott. Jeffrey Immelt, Chief Executive of GE, also agrees to green changes. "The opportunity to provide environmental solutions is going to be one of the big four or five themes of our generation of business leadership," states Immelt. Being green has become one of the most highly sought-after competitive advantages in business, making it clear to see why so many businesses are coming down with a case of "green fever."

While the big-wigs in the green revolution concern themselves with the political benefits of going green, many small to medium companies must focus on another shade of green — cash. Despite common misconceptions, going green presents opportunities for businesses to cut costs, work more efficiently and ultimately improve their bottom line results. For example, energy costs, a large factor in any business's budget, can be reduced through environmentally beneficial, low-energy consumption methods. According to a 2004 US Environmental Protection Agency report, energy costs associated with a company's physical plant represent nearly 40% of all energy use and 68% of total electricity consumption.

Green buildings can reduce these costs significantly. According to a study authored by Gregory H. Kats, the Director of Financing for Energy Efficiency and Renewable Energy at the U.S. Department of Energy, green buildings reduce energy consumption by 25% to 30% on average. Businesses in the US spend \$107,897,000,000 annually on energy for their facilities, according to the US Department of Energy. A 30% cut in this cost would represent \$32,369,100,000 annually in bottom line savings for businesses in every region and sector of the country.

But going green is about more than just reducing energy costs — it is also about maintaining a healthy workforce. Work environment-related illnesses can be significantly improved by a number of commonly used green building methods, including increased ventilation, reduced air recirculation, improved filtration, ultraviolet disinfection of air, reduced office sharing and reduced occupant density. According to a 2000 study by William J. Fisk of the Lawrence Berkeley National Laboratory in California, such improvements significantly lower the occurrence of four of the most common respiratory illnesses, which account for 176 million days of lost work at a cost of \$70 billion a year, due to the cost of treatment and lost work. Such improvements in building design can also create a nine to 20% reduction in cases of the common cold, translating into 16 to 37 million fewer cases annually. This annual reduction could save US businesses as much as \$14 billion each year. Further, improved health gen-

erally increases worker performance and productivity, which ultimately stimulates a company's bottom line. Fisk estimates that companies could save a combined \$160 billion a year by improving indoor air quality regulations and standards.

In order to measure the value of green buildings, however, it is also necessary to consider the cost of building green, as compared to traditional building practices. There is a widespread misconception that green building is significantly more expensive than conventional building methods. While building green may come at a higher initial cost than traditional building methods, green investments are easily regained over time. In *The Economics of Green Building*, author David Gottfried estimates that the initial construction of green buildings typically accounts for only two percent of the total cost, while operations and maintenance account for six percent. Payroll costs, however, represent 92%, showing that a company's greatest investment is in its workforce. When you consider the yearly savings that result from reducing lost work time and improving worker

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health that results from green businesses, the benefits of green building become even more obvious.

So why aren't more companies going green? It's hard to say. Many companies remain resistant to green building due to the initial increase in construction costs. However, as demonstrated above, the preliminary investment in green building is returned in the long run through the continued health and productivity of workers. Many businesses also labor under the misconception that catering to environmental needs comes at the expense of style, convenience and state-of-the-art design, when in actuality, modern developments have made green building a competitive, high-tech construction and renovation option for businesses. In the near future, with more and more key corporations reaping the benefits of choosing to go green, companies that resist the green movement will face staunch criticism and, ultimately, risk failure. Green building, through demonstrated return on investment, long-term energy savings and improved worker health and productivity, has undeniably become a benchmark in industrial and commercial building and promises to be an even greater necessity in the years to come.

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