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A Starring Role for 'Green' Construction

By [VIVIAN MARINO](#)

NOT too long ago, the concept of “green” building was discounted as impractical, something that might be good for the environment but not necessarily for the business climate. But that mind-set is changing rapidly.

As concerns mount about [global warming](#) and oil prices, so, too, has interest in more sustainable, or green, construction — that is, developments that balance style and function with protection of the environment and conservation of natural resources.

“You can’t open a newspaper or a real estate publication these days without seeing the word ‘green,’ ” said John Fleming, the director of commercial real estate for Johnson Controls, whose sales of products that monitor energy output have been strong.

An estimated 6 percent of commercial developments are certified as “sustainable” or have applied for certification through the Leadership in Energy and Environmental Design, or LEED, program of the United States Green Building Council. Industry experts say they expect that the percentage could rise to as high as 10 percent by 2010. And many more buildings are being retrofitted with devices that curtail energy consumption and carbon gas emissions.

What does it all mean for real estate investors?

“Green for the environment and for your bottom line,” said George Caraghiaur, a vice president for energy services at the Simon Property Group, one of the largest owners of shopping malls. “Energy expenses make up 25 to 35 percent of our controllable operating costs.”

Many big institutions are investing billions into projects with sustainable building practices, aiming for both environmental and financial benefits. Among the leaders so far have been big pension funds like the California Public Employees’ Retirement System, known as Calpers, which has a goal of reducing energy use in its real estate holdings by 20 percent over the next five years.

At the same time, private equity funds and partnerships focused on green developments are being formed, like the Hines Calpers Green Development fund and the Rose Smart Growth Investment Equity fund. These funds are marketed to institutions and high-net-worth individuals.

“The institutional players are getting to the market first,” said Leanne Tobias, the founder and principal of Malachite, an advisory company specializing in green real estate investments. “You’re seeing more sophisticated investors who want to take the development risk.”

But Ms. Tobias, who is herself exploring the creation of a green real estate fund, and other industry experts

say they believe that investment products will eventually filter down to average investors.

Gary Pivo, a professor of urban planning and natural resources at the [University of Arizona](#), who tracks the green building market, said, "The No. 1 issue for the general public today seems to be global warming, and buildings are a huge part of the problem and part of the solution."

One of the first green-focused public mutual funds was the Forward Uniplan Real Estate Investment fund, created in 1999. It takes into account environmental factors when choosing companies for its portfolio, though it also looks at broader criteria of social responsibility, like management policies. The Spectra Green fund, established this year, uses similar standards and adds to the mix manufacturers of equipment used by green builders. Such manufacturers include Suntech Power Holdings of China, which produces solar panels.

Ecologically minded investors might also consider individual stocks of real estate companies that have been recognized as having a strong focus on energy efficiency, including the Thomas Properties Group; hotel companies like Marriott International and Hilton Hotels; and real estate investment trusts like ProLogis, Liberty Property Trust and Simon. Liberty's Plaza at PPL Center in Allentown, Pa., includes a vegetative roof of 6,000 or so plants that helps cool the building, among other things.

These companies and a few others "are listed as part of various socially responsible investment indexes," like the Domini 400 Social Index and Dow Jones Sustainability Index, Dr. Pivo noted, and they may also have partnership programs with groups like the [Environmental Protection Agency](#).

Dr. Pivo says he thinks investors will be able to choose among more green companies over the next few years. A study he completed this year found that 41.3 percent of REITs, real estate operating companies, developers and pension funds had invested to some degree in green buildings, and another 26.8 percent had plans to do so.

Many real estate companies have already been making steady forays in sustainable developments overseas, where the green movement has clearly gained traction.

"We've been very focused on sustainability for a long period of time in the U.K. and Japan; it's what the customers want," said Jeffrey H. Schwartz, the chief executive of ProLogis, the world's largest warehouse developer. "In Japan, it's expected that you have grass on your roof and computerized light systems and H.V.A.C. system to minimize electrical use."

ProLogis also uses, among other devices, photovoltaic solar panels and wind turbines; low-energy heating and cooling systems; and landscaping irrigation that incorporates recycled rainwater. But it has found, too, that simply replacing incandescent light bulbs with fluorescent lights can significantly cut electrical use.

THE company is making inroads in the United States as well, starting with its new 89,000-square-foot headquarters in Denver. The building, LEED-certified, has a light-harvesting system that adjusts electrical lights based on the level of incoming sunlight and an evaporative-cooling mechanism that uses less energy than conventional air-conditioning.

In its first sustainability report, which the company plans to release formally this week, ProLogis is laying out plans to create minimum design standards for new developments that will meet or exceed the

requirements for environmental certification from global rating systems like LEED. “Being a good corporate citizen,” Mr. Schwartz said, “is also positive for shareholders.”

Mr. Caraghiaur of Simon agreed, saying energy conservation measures can be “seen as a proxy for management strength.”

“The smart investors of the world have come to conclude that energy is a tough thing to manage and that those companies that do manage energy well are seen as those that manage well — period,” he said.

Since 2004, Simon has trimmed about \$18 million a year in operating costs through its green retrofitting and other projects, representing a reduction of 110,000 metric tons of carbon dioxide a year, Mr. Caraghiaur said.

Some of the same conservation measures employed by big companies like Simon can also be used on a smaller scale by individual landlords. To promote green building practices, the E.P.A. offers a free software tool called Portfolio Manager as part of its Energy Star program. The software helps owners track and improve energy efficiency.

“The opportunity to improve is often available through operations and management practices that don’t require much capital expenditure,” said Stuart Brodsky, the agency’s national program manager for commercial real estate. One step, he said, would be to inspect equipment regularly: “Are your fans running when they’re supposed to be? Are the electrical relays working efficiently? Are the thermostats calibrated to where you think they should be?”

The benefits are the same for all investors, large or small, Mr. Brodsky added. Besides lowering consumption, and therefore, costs, greener buildings typically attract and retain more tenants, thereby ensuring a more continuous revenue stream. They may also help landlords qualify for certain tax credits and insurance discounts, in addition to enhancing the value of a building. E.P.A. research shows, for example, that each dollar per square foot invested in a building’s energy efficiency has the potential to raise its market value by \$2 to \$3 a square foot.

Of course, advances in energy-saving technology have helped make sustainable buildings more cost-effective, not to mention more comfortable for occupants.

“In life,” said Ms. Tobias of Malachite, “it’s very rare when you find an opportunity to do well by doing good.”

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