

Going Green with Bricks and Mortar

by Sherrie Negrea

BY DECEMBER, THE LOS ANGELES Community College District, one of the largest two-year college systems in the country, will become completely energy independent, relying on a combination of solar, wind, and geothermal technology to power its nine colleges. As it approaches this milestone, the district is constructing 30 environmentally sustainable buildings, all of which will be equipped with recycled carpeting and furniture, and has plans for 14 more.

The example set by the Los Angeles district is being embraced by two-year colleges across the country. As they renovate or expand older campuses, community colleges are championing sustainable development in response to demands from environmentally savvy students, faculty, trustees, and community leaders.

"I think a common story for many of the colleges is that they had not seen any action for the last 30 or 40 years," says Larry Eisenberg, executive director for facilities planning and development with the Los Angeles district. "We got into a serious catch-up and maintenance mode. And the common cry for higher education at about the same time was sustainability."

Although sustainable development has been more prevalent at four-year colleges, which can use private donations to fund green projects, community colleges are following close behind in adopting environmentally friendly development. Like four-year institutions, community colleges view green building practices as a way to save energy and demonstrate their commitment to the sustainability movement.

"The trend driving community colleges now is the idea of these green-collar jobs. There's an economic driver for students



coming through community colleges to be part of the sustainability economy," says Don Hensley, a principal with the SHW Group, a Plano, Tex.-based architectural firm that specializes in higher education. "Some community colleges are looking to their campuses to become working labs that will allow students to apply their skills and training directly to projects on campus. All that is driving the architecture at those campuses to have sustainable values."

Another factor spurring the growth of sustainable development at community colleges is the decline in costs associated with green construction. In the past five

years, the additional investment required for sustainable development in higher education has dropped, in part due to competition among manufacturers of materials ranging from recycled carpet to energy efficient windows.

The extra costs involved in green building depend on what features are included and whether the college wants the project to qualify for LEED (Leadership in Energy and Environmental Design) certification, a ranking system developed by the United States Green Building Council, a nonprofit organization dedicated to sustainable building design and construction. For

example, a building certified at silver — the lowest ranking — could incur additional costs of 4 to 6 percent, according to Jeff Sharpe, a project designer and architect with the SHW Group. At the next level — gold — the price tag could run 6 to 9 percent higher, and at the highest level — platinum — it could be 10 to 12 percent higher. These percentages apply to general classroom buildings, Sharpe notes, adding that laboratories and food preparation facilities, which involve more sophisticated ventilation systems, would be more expensive.

“Some of LEED is almost a marketing thing,” Sharpe says. “You like to have that plaque and say, ‘We’ve done it.’ That’s important to some institutions and not others. But what’s overriding that are good environmental solutions.”

Hillsborough Community College (FL) decided to pursue gold LEED certification for its new \$17 million South Shore campus, which will open for classes this fall. Among its green features are raised floors that allow heat to rise naturally to the top of the classrooms; a 300,000-gallon lagoon to collect rainwater that will be pumped back into the building to flush toilets; and classroom lighting programmed to dim in the presence of natural light.

“We knew that it was going to cost more,” says Gwendolyn Stephenson, the college’s president. “But down the road, it would not only allow us to conserve energy for future generations, but it will also allow us to save money in the long run in energy costs, which is very important in the state of Florida.”

While the sustainable features of the new campus cost an additional 8 to 10 percent, they are expected to save 26 percent in energy costs each year. By



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comparison, a new campus for the St. Louis Community College System, which opened in the fall of 2007 and also received LEED gold certification, cost an additional 3 to 5 percent to construct, and is projected to save 30 percent in energy costs annually.

Less glamorous changes in energy management systems can also make buildings more efficient. Johnson Controls Inc., a company that specializes in facilities management, completed a project in July at Tallahassee Community College (FL) that will reduce energy costs by 18 percent, or \$380,000 a year. The savings will result from retrofitting interior and exterior lighting, upgrading the air conditioning, heating and electrical systems, and installing software that reduces the amount of energy powering the 2,200 computers on campus.

If there is a shortfall in the annual projected savings, Johnson Controls will refund the difference, under an 11-year

performance contract the company signed with the college. “Essentially, that means that they can take the savings and pay for the projects,” says Davis Gandeels, the higher education manager for Johnson Controls in Florida.

As enrollment at community colleges increases, an environmentally friendly solution to meet the demand for additional space is the adaptive reuse of existing buildings, which can save construction costs and help revitalize communities.

HACC - Central Pennsylvania Community College (PA) spent \$17 million to convert a former press building, built in downtown Harrisburg in 1919, into a training center for such trades as carpentry and plumbing, as well as engineering and computer networking. Designed with skylights for optimal natural light and an energy-efficient heating and air-conditioning system, the refurbished building opened its doors to 700 students in the fall of 2007.

“Adaptive reuse is one of the strongest and lowest-cost energy solutions you can do,” says Hensley, who has designed projects for three community colleges in Texas. “To take an older building and adapt it to a new use, you save brick and steel — all of the things that would go into building the shell of the building. It’s really an important planning concept for communities.”



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Going Green in IT

A Checklist of Energy-Saving Ideas for Your Campus

by Ed Nadworny

WHEN COLLEGE OFFICIALS THINK about ways to reduce their environmental footprint, they typically think first about facilities, and then about paper and container recycling programs. But opportunities also exist for colleges to “go green” in IT. For example, one tactic with a big potential impact is server virtualization, which combines multiple systems into one. Doing so allows for better use of server storage, improved efficiency of server administration, reduced energy costs, and overall better use of technology capital.

Virtualization has been referred to as the poster child for sustainable business technology. By employing server virtualization, colleges can significantly reduce energy, weight, and cooling consumption without impacting services to students, faculty, and staff. One of the institutions SunGard Higher Education serves, a two-year college in the Midwest, achieved significant savings by taking advantage of virtualization, including reductions of:

- 4,267 watts of constant energy consumption
- 1,154.3 pounds in constant weight consumption
- 1.2 tons of cooling consumption
- \$37,500 total cost avoidance in replacement hardware
- \$12,400 total cost avoidance in energy

Consultants with SunGard Higher Education recently held brainstorming sessions on the campuses of some of our client institutions to share ideas on how to conserve energy, reduce carbon footprints, and reduce operating expenses by going green in IT. What emerged from those sessions is a checklist of ideas that trustees might want to consider and

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discuss with members of their boards, administration, and IT staff.

- **Decrease travel** between campuses by using virtual meeting tools, like GoToMeeting (www.gotomeeting.com). If you must travel, consider carpooling.
- **Recycle or donate** computers no longer being used. The Electronics Take Back Coalition (www.computertakeback.com) and National Center for Electronics Recycling (www.epa.gov/epaoswer/osw/conserve/plugin/wv-ncer2.htm) are two good resources to find homes for unused computers, freeing up storage space in the process.
- **Have IT staff monitor the temperature** in server rooms. Since servers generate a lot of heat, server rooms may not require heating during the cold months.
- **Implement power conservation software** for all PCs on campus.
- **Replace CRT monitors** with lower energy LCD screens.
- **Eliminate desktop printers.** Not only will this save energy, but it will greatly decrease the amount of routine printing — and paper usage.
- **Replace older computers** with

newer, more powerful, and more energy efficient machines. On average, a refreshed PC can decrease power consumption by up to 20 percent, resulting in significant cost savings and environmental benefit.

- **Replace copper cabling.** While many colleges removed copper wiring when they upgraded their networking infrastructure to a newer standard, the copper may still be sitting idle in a storage area. Rather than take up precious storage space, the copper can be taken to a recycling vendor, which will issue your college a nice check.
- **Remind employees to turn off their computers** when they go home for the day. One institution estimated that turning off every computer each night will save more than \$100 per computer per year. Another implemented a program that forces an automatic shutdown of PCs left on after business hours.

During our week of hosting these discussions on campus, we saw that most people want to make a difference when it comes to saving energy and protecting the environment. But the issue needs executive leadership behind it before an entire campus will truly start changing its habits. Going green in IT is an excellent opportunity for trustees to take the lead in reducing the environmental footprints of their campuses, as well as to cut costs.



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Recession Insurance Policy

THE CITY UNIVERSITY OF NEW YORK | WWW.SUPPORTCUNY.ORG

This policy is issued by The City University of New York, the leading public higher education institution in New York City.

CUNY hereby furnishes recession insurance to students enrolled at its six community colleges: Borough of Manhattan Community College, Bronx Community College, Hostos Community College, Kingsborough Community College, LaGuardia Community College, and Queensborough Community College.

In case of a downturn in the economy, students will receive the provisions that follow, subject to all of the requirements, terms, and conditions previously described by insurer and its agents.

However, should the City of New York elect to decrease coverage, student coverage may vanish.

COVERAGE

Educational Opportunity.....*Included in premium*

Policyholders must be CUNY students, including the current enrollment of more than 230,000 degree-seeking students, 79,000 of whom are community-college students across the five boroughs.

Career and Workforce Training.....*Included in premium*

Almost 90% of 2005-06 graduates of career and technical programs at CUNY community colleges were employed within six months of graduation. Each year, CUNY produces thousands of graduates in health care, public administration, and social services.

Employment Security.....*Included in premium*

Almost 90% of CUNY community college graduates are employed within six months of earning the associate degree, and over 94% are either employed or enrolled for additional education. Of those who are employed, 93% work in New York City.

Increased Earnings.....*Included in premium*

For every 30 credits completed, community college students earn about 5% more than high school graduates. On average, those who have attended a community college earn about \$5,000 more per year than high school graduates

City Council Vallone Scholarship Option

Students from New York City schools who maintain a “B” average are eligible for Vallone Scholarships. In 2006-07, about 12,000 CUNY students received these awards. Since the program’s inception in 1998, over 117,000 awards have been made to CUNY students.

Adult and Continuing Education Option

Those already in the workforce may want to avail themselves of CUNY’s adult and continuing education programs, an important resource during periods of elevated unemployment. Since 1999, continuing education enrollments at CUNY—currently at over 230,000—have increased by more than 40%.

PREMIUM TO BE DETERMINED BY THE OFFICE OF THE MAYOR OF NEW YORK CITY AND THE NEW YORK CITY COUNCIL.

Recently, the City University of New York (CUNY) made lemons into lemonade by issuing a “Recession Insurance Policy.” In the policy, CUNY points out the great value of community college education to students during an economic recession. Citing notable statistics, such as the fact that “almost 90% of 2005-6 graduates of career and technical programs at CUNY community colleges were employed within six months of graduation,” the policy is an example of a community college system taking a unique approach to promoting its value and good works to the public. The policy was issued at a hearing of the New York City Council Higher Education and Finance Committees in May, and was used to advocate for greater attention to the power of community college education. CUNY’s Recession Insurance Policy is a stellar example of a community college system thinking outside of the box to advocate for and promote the value of community colleges.