



Green Collar Jobs: The Next Industrial Revolution

by Sherrie Negrea

WITH DEMAND FOR ENVIRONMENTALLY savvy technicians skyrocketing, community colleges are establishing flexible training programs to meet the needs of the emerging clean-energy economy.

Less than two years after California launched a \$3.3 billion program to install solar power on a million roofs across the state, Sierra College, a community college near Sacramento, received a \$468,000 state grant to train students in photovoltaic technology. With 36 solar companies in the region employing nearly 400 people, the college will fill a gap in training for the estimated 130 jobs that will be added to the field each year.

While California may be ahead of other states in priming the job market in sustainable development, community colleges across the country are establishing training programs to prepare students for emerging “green-collar” jobs. Not only are two-year colleges adding associate degrees in fields such as renewable energy, they also are revamping existing programs such as automotive technology by infusing them with green principles.

“Providing associate degrees is one of the most important things you can do in the new clean-energy economy,” says Kate Gordon, national program director of the Apollo Alliance, a San Francisco-based coalition that promotes sustainable energy policies and initiatives. “It’s not all about hiring technical people with four-year college degrees. A lot of the jobs will require a two-year associate degree because they’re in the trades.”

Green Jobs

While green jobs are being created in a variety of fields, the largest number of



new positions in sustainable development likely will relate to the area of energy efficiency, which includes retrofitting and auditing buildings and installing energy-saving appliances, according to Susan Christopherson, the J. Thomas Clark Professor of City and Regional Planning at Cornell University. “The reason that energy efficiency is potentially going to produce more jobs is that we’re all going to have to be engaged in retrofitting our houses and our commercial and public buildings to make them more energy efficient,” she says.

It is within the energy efficiency arena that most training programs have been cropping up on community college campuses. Cedar Valley College in Lancaster, Tex., for example, started an Energy Efficient Green Building Institute two years ago that trains students to create energy-efficient homes in both new and existing housing stock. Since 85

percent of the program is offered online, it has attracted students from across Texas, according to Jennifer Wimbish, president of Cedar Valley College.

The college is now evaluating the value of adding a program in solar technology, based on the demand from Texas companies. After speaking in April at a panel in Austin that examined the state of solar power in Texas, Wimbish was bombarded by company representatives who want to hire technicians. “I bet there were easily 60 or 70 solar companies in the room,” she says, “and all of these people were running to me because they need technicians now.”

Supply and Demand

Before training programs are created, Christopherson cautions that two conditions must be in place: cities and states have to create a market by passing laws mandating the use of renewable



energy or sustainable building practices; and governments have to provide incentives such as low-cost loans for homeowners and businesses to retrofit buildings or switch to renewable energy.

“There has to be a connection between the creation of the market and the creation of incentives and job training,” Christopherson says. “These things all have to be tied together to create jobs.”

While jobs in the solar power field have been multiplying in California as a result of that state’s initiative, demand for photovoltaic technicians is spreading across the country as other states strengthen their incentive programs. Mike Hall, president of Borego Solar Systems Inc., based in Berkeley, Calif., says his company expanded into New England last year after attractive state rebate programs made the region an emerging solar market.

“It’s a growing industry that essentially wasn’t here five years ago,” says Hall,

who has consulted with administrators at Merritt College in Oakland, Calif., about preparing students for solar technology jobs. “Trained installers are definitely hard to come by.”

Get the LEED Out

As new technologies and energy-saving devices enter the market, community colleges are prepared to step in and provide job training because they are equipped to adapt quickly to shifting employment trends. Onondaga Community College in Syracuse, N.Y., was awarded a \$700,000 state grant last year to create a Sustainability Institute that will offer degrees in energy and environmental systems, as well as automotive technology. This spring, students also completed the college’s first-ever course in photovoltaic training, a partnership with the State University of New York College of Environmental Science and Forestry in Syracuse.

“We are responding to the demands of employers who are already hiring people in these green-collar jobs, and we are also preparing people for jobs that are emerging — and by all indications, will be there in the future,” says Debbie Sydow, president of Onondaga Community College.

One growing need is employees who can help developers design buildings that qualify for LEED (Leadership in Energy and Environmental Design) certification. “The pool of people out there who understand the rapidly changing world of LEED certification and green technology is becoming larger and larger, which is why you see developers taking a harder look at understanding it,” says David W. Murphy, chair of the Onondaga



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Community College Board of Trustees and president of Pioneer Companies, a development firm in Syracuse.

“So many people are just beginning to wake up to sustainability, which I maintain is at the dead center of the community college mission,” says Rusty Stephens, president of Wilson Community College in Wilson, N.C. “I believe that [sustainability is] so fundamental that it’s going to allow us to reinvent ourselves within the context of a new framework of thought, a new relationship to our communities, and certainly a whole new curriculum content. I believe it is nothing less than the next industrial revolution.”

The next issue of *Trustee Quarterly* will examine how sustainability saves money in construction and operating costs on college campuses.



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