BUILDING A PIPELINE FOR GREEN JOBS

In 2005, an effort to obtain a grant from the federal WIRED initiative, which provides money to projects that link workforce and economic development to spur growth, led to the collaboration that today includes many local organizations working to strengthen Central New York’s green workforce.

BY KRISTOPHER DODSON

Vestas technician Brian Brewer stands on top of a rotor of a windmill at the Maple Ridge Wind Farm near Louisvile. Denmark-based Vestas, a leading supplier of wind power solutions, offers an intensive training program for its employees through its university sponsorship program and graduate program.
A result of this collaboration has been to build our capacity for networking, and the level of Cato Meridian. Erick Rice, a senior at Cato-Meridian, installs a four-way switch. He is a student in Ray Ludemann's electrical training class.

It was also the genesis of Journey 2 Jobs, a group of organizations and institutions that include CNY Works, the Cayuga-Cortland and Oswego County Workforce Investment Boards, and the Madison County One Stop Career Center, Onondaga Community College, the Greater Syracuse Chamber of Commerce, Manufacturers Association of Central New York, the Metropolitan Development Association, the State University College of Environmental Science and Forestry, the Syracuse Center of Excellence, Syracuse University, Onondaga-Cortland-Madison BOCES and many other partners on an ever-growing list. The grant application was unsuccessful, but since then CNY Works has received a grant from the Department of Labor and the MDA has received a grant from the Ford Foundation. Both grants are focused on workforce and economic development.

The initiative started as a series of community conversations to discuss topics critical to workforce development. In March 2007, Journey 2 Jobs hosted a meeting at the Oncenter in Syracuse. Nearly 400 people attended. As a result of the conversations and meeting, five economic drivers and 10 workforce challenges were identified.

"A result of this collaboration has been to build our capacity for network-
Ray Ludemann is incorporating alternative-energy training into his class curriculum at Cayuga-Onondaga BOCES. Here, he shows his students how a solar panel can power a car blower fan.

Laying the groundwork

“The pipeline is about talent development,” says Ehrenreich, “whether it’s a summer science camp for kids, internship programs, professional training programs and teacher training, we’re working to create a skilled work force for the green sector.”

“The purpose of the pipeline is to create a solid link between job seekers and employers, but to also make sure the jobs are sustainable both in culture and in practice,” says Ehrenreich. “Our efforts are to foster a culture of responsibility and innovation and to embrace the assets we have in Central New York in labor, resources and businesses.”

“The work-force pipeline really starts in pre-k through 12 institutions,” says Karen Dejarnette, the chair of the Creative Core Green Team’s Workforce Development Taskforce. “A pipeline works when you have both demand and supply sides functioning, pushing students on one side and pulling a skilled work force into green tech jobs through the other. In terms of green tech it is not only important to understand why these jobs are important, but also how doing the job in this way has a positive impact on the environment and community. Understanding the impact is an essential part of what students learn.”

Many jobs, Dejarnette says, will be in energy efficiency and weatherizing buildings and include energy technicians. Still others will be in the building and construction sector, while other jobs will be infused with principles of sustainability.

Focusing on emerging workers, whether straight out of high school, community colleges or four-year institutions, is important, but so is engaging business interests, says Dejarnette.

The Green Team’s work force task force is reaching out to green technology businesses across a 14-county region and is meeting with businesses to assess their needs. “We do not have the results yet,” Dejarnette says, “but hope to have them soon so we can report what we learned and provide recommendations to close the gaps.”

“We ask for a lot of input from employers, questioning them on what jobs they have today and are building for tomorrow, what skills they are looking for in an employee and what current training opportunities they utilize,” Dejarnette says. “From there we try to add value by expanding existing programs and develop what’s missing.

“We reach out to community colleges, as they are often the ones with the programs,” she says.

Providing the training

Cayuga-Onondaga BOCES, Cayuga
State University College of Environmental Science and Forestry partnered with Onondaga Community College to offer The Solar Power as Renewable Energy program. It is a four-day course, recognized by the North American Board of Certified Energy Practitioners with hands-on training geared to provide participants with the skills necessary to become an installer. "People are dying to get into the class," says Emily Gillis, project coordinator in ESF's outreach office.

Community College, SUNY ESF and Onondaga Community College are some of the institutions that have developed, and continue to develop, academic programs and trainings focused on retooling the existing work force and providing opportunities for students to enter the green work force.

David Wall, director of corporate and public partnerships at Onondaga Community College says the college has developed green curricula in three degree programs: environmental technology, sustainable building design and automotive technology. "We are also continuing our LEED contractor training and OSHA trainings," he says.

Ken Bobis, professor of architecture and design at Onondaga Community College says the college has been working for several years to "in fuse green building practices into the curriculum. Whether it's design, construction, mechanical or electrical, instructors are encouraged to address green building design."

Introduction to Sustainable Homes, taught by Kevin Stack, president of Northeast Natural Homes, may become a permanent course. Introduction to Sustainable Construction. "All seats are always taken," Bobis says.

Two new courses will be offered in the spring, Green Building Rating Systems and Residential Energy Performance. "Student will be able to conduct the testing for energy performance as part of the hands-on course," Bobis says.

OCC's environmental technology program includes courses in brownfield redevelopment, environmental cleanup and ground-water and stormwater contamination. New course work will include biofuels, biomaterials and alternative energy.

The Small Business Development Center at OCC will be offering two workshops in the coming year, Greening your Business and Marketing.

J2J PARTNERSHIPS:
- MACNY, SUNY ESF, the WorkKeys Center at Syracuse University, the Center of Excellence in Environmental and Energy Innovations and the CNY Biotechnology Research Center are building a career ladder map in advanced manufacturing.
- CNY Works, SUNY ESF, the MDA, MACNY, University College of Syracuse University, Partners in Education and Business and WorkKeys have been awarded a grant to support the regional economic transformation through supporting the energy and environmental systems cluster.
- OCM BOCES and OCC are collaborating on a three-year mechanical and electrical worker training program designed to prepare people for work and advancement in these fields.
- In a partnership with SUNY ESF, OCC's Sustainability Institute will offer two-year degrees, certificates and online courses to develop a green technology work force.
- OCC and SUNY ESF are working together on the SPARE program (Solar Power as Renewable Energy). They will be training to individuals who will be installing photovoltaic equipment.

Source: www.cnyworks.com/J2J/
Training programs and workshops available around Central New York:

Onondaga Community College
- Environmental technology program covers biofuels, bioremediation, brownfield redevelopment, and Geographic Information Systems
- Architectural technology covering sustainable construction, green building rating systems and residential energy performance
- Automotive technology covering alternative fuels and emissions standards
- Small Business Development Center offers workshops including "Greening your Business" and "Marketing your Green Business"

OSHA HAZWOPER training
- LEED Contractor training

Manufacturers Association of Central New York
- The Triple Bottom Line Mini-Series: Dec. 4, 5, 11 and 12 or May 6, 7, 20 and 21
- The Triple Bottom Line Overview: March 31, 2009

State University College of Environmental Science and Forestry:
- SAGE Seminars: Sustainability and Green Entrepreneurship seminars for high school juniors and seniors: Spring 2009
- Introduction to Green Entrepreneurship seminar: a weeklong summer course for high school students: Summer 2009
- SPARE Program: visit www.esf.edu/outreach/pd/spare for dates

SUNY ESF and MACNY
- Certificate of advanced study in bioprocessing

New York State Energy Research and Development Agency
- Energy Smart Students Workshops: Free Workshops for K-12 Educators
- ABCs of Energy (Grades K-3): Dec. 15
- 4Es of Energy (Grades 4-7): Dec. 16
- Energy Trilogy (Grades 7-12): Dec. 17

energy-efficient and environmentally friendly. Green building is at the top of most people's lists these days."

Land Shapes now offers solar water, solar heat for pools, commercial and residential solar energy installations and even wind energy installations.

Mapping a Career

As part of the effort to build this work force pipeline, MACNY, SUNY ESF, OCC, the Syracuse Center of Excellence, Partners in Education and Business and the MDA are working with the WorkKeys Center at Syracuse University College to develop career ladder maps. "The maps show students what the potential careers are, who the employers are and what institutions give training," said Steve Maloney, director of training and work force development at MACNY.

The career ladder maps are meant to be used as tools for students in the five-county region but could be used by anyone. Maloney expects that the career ladder maps will soon be available online. The career ladder maps are focused on manufacturing careers in environmental systems and biotechnology.

In the meantime, high school students were exposed to the region's green sector opportunities at a Green Collar Career Fair on Nov. 5th at Tompkins Cortland Community College in Dryden. Sustainable Tompkins, an Ithaca-based organization focused on economic vitality, ecological stewardship and community well-being organized the event, which had 35 to 40 regional businesses present. Gay Nicholas, program director at Sustainable Tompkins, says "there are many bottlenecks in training and recruitment, so this is an opportunity for students to get excited about making a contribution in this arena and understand the training necessary as they pursue their potential careers."

Business Needs

As a business organization, MACNY also surveyed more than 325 member businesses to find the need for skills in Central New York. Of the 86 respondents to the survey, 29 percent indicated a gap in environmental/ sustainability skills and were willing to provide training or consulting to close the gap. "Part of our effort includes retooling the current work force to make them sensitive to new ideas in the workplace," says Maloney. As a result, MACNY is preparing to host seminars beginning this spring that include an overview of sustainability and a sustainability training series. "We hope to show businesses in Central New York how to be profitable, while also taking steps to care about the community and the environment. It's what we call the triple bottom line."

(Continued from page 68)