In the Illinois Green Economy Network, 48 community colleges collaborate with local businesses to invigorate sustainability efforts in the state.

By Robert J. Hilgenbrink and Alessandra Cairo

With solar panels adorning buildings in the northern regions, wind farms popping up in the central and eastern regions, and geothermal wells being drilled throughout the state, the emergence of a "green economy" in Illinois can't be missed. To grow and thrive, this new economy depends upon workers who have the specialized knowledge and skills that community colleges excel in providing.

That premise served as one of the driving forces behind the Illinois Green Economy Network (IGEN), created in 2008. IGEN's membership includes all 48 community colleges in Illinois—the third largest community college system in the country, which enrolls more than 1 million students annually.

"The scale and adaptability of community colleges make them a strong choice as a driver of green job training. IGEN's sustainability and green economy centers at Illinois community colleges provide a statewide platform for partnerships with government, business, and many others to offer the academic and applied learning that meets the demand for skilled employees, and the need for a knowledgeable and engaged citizenry," says Julie Elzanati, IGEN's executive director. "We also are transforming our colleges into demonstration facilities that serve as business models for energy efficiency, renewable energy, green building, local food, native landscaping, green cleaning, and much more."

FINDING THE FUNDING

The idea to create a statewide network to support sustainable practices sprang from informal conversations among members of the Illinois Community College Presidents Council. They noted that several colleges had registered success with programs addressing a growing need for more environmentally conscious activities.

In 2008, as a founding college of the network, Heartland Community College in Normal established the Green Institute to support a wide range of campus initiatives, educational programs, and community activities related to sustainability, energy conservation, renewable energy, recycling, retro-commissioning, and other environmental technologies.

Since then, Kankakee Community College, Kankakee, has been offering an associate's degree in electrical technology with a renewable energy specialization, plus classes in solar-thermal, solar-photovoltaic, and small wind-energy technologies. And recently, Lewis and Clark Community College, near the river town of Alton, opened the Jerry F. Costello National Great Rivers Research and Education Center.

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Confluence Field Station—a model of green design, as well as the country's first comprehensive river system research and education program.

These three community colleges, joined by three other colleges, agreed to share ideas and collaborate on expanding training and employment opportunities within the emerging green economy, improving human and environmental health, and fostering community engagement. They formed IGEN's predecessor—the Illinois Community College Sustainability Network (ICCSN)—and obtained two separate grants from the Illinois Department of Commerce and Economic Opportunity (DCEO) to establish pilot sustainability centers at six campuses in a two-year period.

In 2010, Gov. Pat Quinn committed to providing additional state funding to not only support the network, but also expand it to include all community colleges in Illinois. Speaking at a press conference in January 2010, Governor Quinn noted, "Investing in green job training will ensure Illinois' long-term success in one of the country’s fastest-growing industries and will allow us to build upon our position as a leader in sustainability. This grant furthers our commitment to building a cleaner, greener Illinois and training a workforce that's prepared to meet the demands of a green 21st century."

The $1.7 million in funding provided by the Illinois DCEO enabled the network to maintain its six pilot sustainability centers and open six new ones. Several college presidents also worked with the Illinois congressional delegation to secure federal appropriations totaling $850,000 through the U.S. Department of Education and the Department of Energy.

With funding secured, the network recruited a start-up executive director, hired a small administrative team to coordinate the efforts of the 12 sustainability centers, created three regional green economy centers, and provided seed funding to the other 36 community colleges in Illinois. Each center is staffed by a sustainability professional who supplies sustainability and green economy resources to college personnel, including administration, faculty, staff, and students, as well as the general public in the surrounding communities.

The sustainability professionals also participate in statewide activities, such as attending network meetings, participating in biweekly conference calls, and collecting and reporting data related to sustainability activities and green economy initiatives on their campuses and in their college districts.

In meetings with potential corporate partners and government leaders, staff quickly discovered that people found the organization's name cumbersome and not descriptive of its mission, purpose, and activities. Consequently, in May 2010, the Illinois Community College Sustainability Network became the Illinois Green Economy Network (IGEN)—a community college partnership. The new name better positions IGEN to receive funds from multiple sources and to welcome other members to the partnership, including government, business, and community organizations.
FOUR AREAS OF FOCUS

IGEN provides the structure to foster collaboration, consistency, and the sharing of best practices so each college can learn from the successes and challenges of others. For example, instead of five community colleges developing vastly different wind technician training courses, the network can establish course development partnerships and provide shared training resources for use by all five.

To fulfill its mission—stimulating the green economy of Illinois—IGEN focuses on the following four program areas:

**Green campuses.** Community college facilities and operations provide the testing grounds for innovative green technologies and business operations. The educational institutions are encouraged to institute practices that reduce energy use and minimize environmental impacts and to integrate sustainability principles into their buildings, purchasing decisions, and curriculum. For example:

- Thanks to a campuswide sustainability initiative, "Envision. Educate. Engage," Lake Land College in Mattoon reduced its annual energy cost by nearly $100,000. Through this initiative, it created a large geothermal well field, implemented thin client technology, and renovated its Northwest building to reduce the amount of electricity and natural gas used.
- Over an 18-month period, the College of Lake County in Grayslake reduced energy consumption by 5 percent by adhering to sustainable operations and maintenance guidelines. These guidelines included the use of occupancy sensors for lighting and HVAC control where possible, double-paned glass for all windows, and the conversion of traditional lighting applications to energy-efficient T-8 fluorescent bulbs or better.
- Moraine Valley Community College, Palos Hills, implemented a computer power management policy to reduce annual electricity use by an estimated 2 percent.
- Kankakee Community College reduced its energy use by approximately 3 percent by implementing a policy that improved scheduling and space utilization.
- Southwestern Illinois College constructed a wind turbine and installed solar panels at one...
of its campuses, reducing the college’s greenhouse gas emissions and contributing to the local power grid.

**Green communities.** Staff at the college sustainability centers work within their communities to educate residents and promote green and sustainable living through workshops and seminars, continuing education courses, and outreach activities. McHenry County College in Crystal Lake, for example, annually publishes—in print and online—a green guide to recycling facilities and green living resources for county residents. As part of its community education courses, Lincoln Land Community College in Springfield offers sessions from composting and canning to local food. And citizens living near John A. Logan College in Carterville can take classes on living green, home weatherization, and solar design and installation.

College sustainability staff share their community-level successes and challenges with peers across the state through network meetings, conference calls, and webinars. These activities cover topics such as thin client computing, organic agriculture, student engagement, and strategic planning for sustainability.

**Green curriculum.** To support the integration of sustainability and green economy concepts into the curriculum across multiple disciplines, IGEN colleges collaboratively developed and implemented several Greening Your Curriculum training sessions for faculty members. Attendees receive a handbook, access to an online database, and other resources to share with colleagues at their home campuses. The sessions also provide opportunities for faculty to brainstorm ways in which they can translate green concepts into career-oriented assignments for students—for example, by devising math problems that require calculating a carbon footprint.

**Green workforce development.** Approximately two thirds of the students at Illinois community colleges enroll in certificate programs that help them acquire specialized workforce skills and training. To ensure that these students can qualify for employment within a green economy, the colleges now offer courses on topics such as alternative and renewable energies, energy auditing, maintenance of hybrid vehicles, weatherization, and wind technology. Here are a few examples:

- Although located in the small, rural community of Harrisburg, Southeastern Illinois College attracts students from around the country to take part in its online biofuels education program.
- Illinois Central College, East Peoria, hosted a full-day program on Women in Green, which highlighted green programs of study and explored ways to recruit and retain women in green careers.
- Heartland Community College sponsored a session titled Houses That Work. Aimed at building industry professionals, the full-day program addressed such topics as indoor air quality, mechanical systems, and principles of green building. The college also provides training in developing, managing, and promoting a recycling program for construction and demolition debris.

In February 2011, according to the Illinois Department of Employment Security, the state’s unemployment rate fell below 9 percent for the first time in two years. Leading industry sectors include trade, transportation, utilities, and manufacturing, as well as professional, business, health, and educational services. Through corporate partnerships and private and federal grants, IGEN plans to secure employer partnerships in these sectors to provide the necessary training for emerging green-collar jobs and green careers. Also, periodically conducting employer needs assessments will help IGEN match the training offered at community colleges with the needs of the local labor market.
with the jobs in highest demand.

**NEW DIRECTIONS**

In November 2010, IGEN created four task forces to address emerging green priorities: local food, weatherization, strategic and master planning, and transportation. Each task force is charged with identifying what colleges across Illinois are currently doing in regard to the specified topic, compiling best practices along with other research and data, and providing formal recommendations for potential adoption by IGEN's member colleges.

IGEN's future depends on continued political support and the flexibility to seek funding in a competitive environment. For example, Congress has recently replaced its federal earmark system with competitive training grants linked to job improvement opportunities and programs that can be modeled in other states. At the state level, IGEN has proposed linking reduced energy usage at community colleges with funding from utility rate agreements that encourage increased energy efficiency and the use of alternative fuels. Additional financial support from the private sector will be essential to expand the adoption of sustainable practices and training throughout the state.

The final measure of IGEN's success will come at the local community level, where the college sustainability centers not only support job training and creation, but also serve as a resource to residents seeking to improve their understanding and derive the benefits of a greener economic model in their personal lives.

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**PLANTING THE SEED**

Growing a green economy—by region, within a state, or across the nation—requires some up-front planning and long-term nurturing. In October 2010, the American Association of Community Colleges (AACC) and its partner, ecoAmerica, launched the [Sustainability Education & Economic Development Resource Center](http://www.nacubo.org/Business_Officer_Magazine/Magazine_Archives/JulyAugust_2011/Network_Power.html), an AACC online networking tool and clearinghouse of curricular materials and program opportunities in areas such as solar, wind, green building, and energy efficiency.

The Web site offers a robust mix of supporting resources regarding green job credentials and certifications; green job skill sets, competencies, and career paths; sector-specific employment projections; strategies for building quality programs; and innovative practices and partnerships.

A recent $1.3 million grant awarded to the SEED Center by the Kresge Foundation will further assist community college leaders and faculty with expanding and initiating green job training opportunities. The funding will enable the colleges to link to prospective employers in the construction, energy, resource conservation, transportation, manufacturing, and other industries as part of a broader AACC goal to educate America's workforce to compete in emerging high-growth green economy sectors.

According to Debra Rowe, professor of sustainable energies and behavioral sciences at Oakland Community College, Bloomfield Hills, Michigan, and chair of the SEED Center's Technical Advisory Group—which was largely responsible for developing the center's Web site and vetting its content—this green leadership push by community colleges is a natural fit.

"Community colleges have always worked closely with local businesses and industries, nonprofit groups, and government agencies to build active partnerships that address regional training and hiring needs," says Rowe. "The value of the SEED Center and the repository of materials it provides is the larger mission it reflects—that is, fostering a broad knowledge base across disciplines that encourages students and community members to participate as citizens and as critical thinkers in solving society's complex challenges with regard to our environment and economy."
For more details, read AACC’s new strategic plan for SEED, “Community Colleges in the Emerging Green Economy: Charting a Course and Leadership Role (search for “strategic plan” at www.theseedcenter.org),” which offers a shared vision for the special role of community colleges in promoting a green economy and creating green jobs.