

Green Power

NCCCS LEADS SUSTAINABILITY EFFORTS

By Fatima Khan

“We will harness the sun and the winds and the soil to fuel our cars and run our factories ... and we will transform our schools and colleges and universities to meet the demands of a new age.”

– Barack Obama, U.S. President

President Obama’s inauguration speech references to alternative energy sources as well as education’s pivotal role in the future did not go unnoticed. Educators, policymakers, clean energy advocates and industry leaders alike are rising to meet the unprecedented challenges posed by global climatic change.

Higher education is a focal point in today’s environmental fervor. “Everybody is working to be correctly positioned for energy, for climate and clean technology,” said Rick Weddle, president and CEO of the Research Triangle Foundation of North Carolina. “Each university has strong sustainable programs and core competencies that will feed into clean technology. Engineering, material science, mathematics and physics, all those core elements and inputs feed into that along with law and public policy. Clean technology is one that will develop within the convergence of technology and science along with public policy.”

As hard as the university system is working on green technologies, the North Carolina Community College System (NCCCS) is spearheading the state’s sustainability movement through dedicated efforts to “green” the workforce and create sustainable campuses.

“Going green in North Carolina will mean the creation of new jobs,” explains Matthew Meyer, NCCCS’ associate vice president of innovation and biotechnology. “With the economic stimulus bill, construction and alternative energy jobs will be some of the first to be impacted. Programs in electrical and green construction, HVAC and biofuels will be promoted. Our focus is getting North Carolina citizens working again. This is our priority.”

JOBS, JOBS, EVERYWHERE

Community colleges are key to the state’s sustainability priorities since many new jobs, especially in solar and wind-power installation, will require more than a high school diploma but less than a four-year degree. NCCCS leaders are developing strong green strategies and policies that serve to fill short-term gaps in both curricula and workforce training programs. In the long run, NCCCS is helping to stimulate the economy via the development of job opportunities.

According to Rose Johnson, PhD, president of Haywood Community College in Clyde, NC, “Research will show you that the products, services, and business development opportunities associated with the sectors of renewable energy and energy efficiency are very large.”

“Many individuals are involved in the installation process and need solar-specific training. These include installers, code officials, system designers, the finance community, as well as sales people,” said Kathleen Bolcar, workforce development lead at the Solar Energy Technologies Program at the U.S. Department of Energy.

Already, the U.S. Environmental Protection Agency reports that there are several sectors that have a shortage of skilled, qualified workers, including “energy auditors,



The American Solar Energy Society reports that as many as 37 million jobs can be generated by green industries by 2030, which amounts to over 17 percent of all anticipated U.S. employment. NCCCS can design specific workforce training programs for the solar and other green industries.

home weatherization technicians, energy efficiency program design professionals, greenhouse gas accountants, verifiers and managers.” Alongside the creation of new green jobs is the greening of existing blue collar jobs. By providing green skill-specific training, blue collar jobs that are in danger of being lost can be saved.

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“The opportunity for growth and return on investment in job categories beginning with manual labor jobs, especially in the building industry, is significant,” explains Rusty Stephens, PhD, president of Wilson Community College in Wilson, NC. “For example, the vast majority of buildings in the current inventory of our built environment are highly inefficient. Retrofitting of these homes, offices and factories can result in a 30 percent to 40 percent savings in energy consumption and reduction in climate altering greenhouse gases. Traditional businesses such as HVAC, remodeling, construction, electrical contracting and home building will need to upgrade the skill sets of their employees or be able to hire subcontractors with new green building skill sets.”


NCCCS is responding to industry’s changing needs by supplying trained workers. “Local colleges are in touch with the businesses and industries in their service areas and as these employers begin changing their products, production processes and services, the colleges are developing new educational programs,” emphasizes Haywood Community College’s Johnson.

THE FUTURE AWAITS

It will be important for employees of the 21st century to understand green goals such as energy efficiency, waste reduction and elimination, conservation and sustainability. Corporations that are serious about going green will hire leaders who truly understand the mechanics of the energy sector. Community colleges can bolster a green entrepreneurial spirit by helping to provide both management and employees with the skills needed to turn sustainable technologies into viable business solutions.

Energy efficient jobs will continue to experience growth well into the future. As savings accumulate from the use of energy efficient measures, they can be re-invested in the next level of sustainability practices, including the rapid adoption of renewable energy, which will in turn create greater demand. Green jobs also allow a measure of job security as retrofitting for efficiency and upgrading to renewable energy sources occurs in the U.S.

“This cyclical process ensures the continual involvement of community colleges. Indeed, this responsiveness to new trends and implications for workforce development is a hallmark of America’s community colleges,” adds Wilson Community College’s Stephens. Community colleges are truly poised to become “living laboratories” as students and the workforce constantly expand their green skills.

“The social, economic and environmental cost to do nothing on our campuses is great,” reflects NCCCS’ Meyer. “As NCCCS trains workers, empowers students, and responds to industry partners, it boldly acts as a unifying force in North Carolina’s sustainability efforts. It also actively builds the infrastructure for green initiatives, upon which NC citizens can lay the successful foundation of a rapidly changing future.” 

NCCCS provides green training for:



- Workers who install solar panels, perform ground water and air quality sampling, maintain energy efficient HVAC systems, and design ecofriendly campus landscapes.
- Students who need updated skills in automotive hybrid technology.
- Construction workers who need hands-on training in energy efficient equipment ranging from wind turbines to photovoltaic or solar hot water installations.
- Engineers and architects who redesign mass transit systems including modernizing commuter systems using alternative energy sources such as biofuels.
- Electricians performing energy audits on buildings and wiring “smart” power distribution grids.
- Energy analysts who assess a home or building’s energy expenditure.
- Manufacturers of energy-related components.
- Entrepreneurial individuals and management personnel who desire to start or expand an existing green business.
- Carpentry professionals who need to learn green building codes in order to retrofit or build new offices and schools.



For more information visit:

www.ncccs.cc.nc.us