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Burning Questions: Thinking green in the job market

By Larry Avila
Post-Crescent business editor

Theresa Lehman may be considered a pioneer in some circles.

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Since graduating from the Milwaukee School of Engineering in 1998, Lehman's career has focused on environmentally friendly building design and construction.

"I've been around the building industry since I was 15," she said. Lehman has served as director of sustainable services at Miron Construction in the Town of Menasha since 2008.

Though the concept of preserving resources and reducing new development's impact on the environment may be viewed as a noble cause, it hasn't been easy going.

"There have been growing pains, but I think the industry has turned the corner the past couple of years." Lehman said.

As the government moves forward with initiatives to improve energy efficiency and incorporate green construction practices and greater use of recycled materials in new public buildings, those in traditional building trades and design and build jobs, find new skills will be necessary.

But green thinking isn't limited to the building industry. Development of renewable energy sources and helping existing industries adopt new production methods to reduce their impact on the environment is fueling a need for a new generation of worker, one better versed in the benefits of thinking green.

With a new economy emerging, state and regional experts discuss efforts under way to meet future work force needs.

What type of jobs will be in demand in the future?

Lehman said those already working in the construction industry will need a better understanding of green building and design.

"Miron hired me to educate our employees and our business partners," she said. "When you install geothermal systems, vegetative roofs, solar panels or wind turbines, not only will we need people who understand how these systems work, but how to maintain them."

Sue Loomans, executive director of the Milwaukee-based Wisconsin Green Building Alliance, said businesses initially were reluctant to look at green initiatives over fear of high upfront costs.

"There are financial benefits in terms of cost savings by using less energy when you have a green building," she said. "There also is greater awareness today about climate change and over consumption of natural resources."

Because there is growing interest in rehabilitating older buildings, retrofitting is creating opportunities for specialty work.

"Taking an old building and determining how to make it as energy efficient as possible does take some skill and it's a tremendous amount of work," Loomans said.

Even the automotive field will need technicians who understand maintenance of hybrid and alternative fuel vehicles, said Ron Toshner, executive dean and chief academic officer at Fox Valley Technical College in Grand Chute.

“As more hybrids and alternative fuel vehicles hit the roads, we will need people who understand these systems so they can maintain and repair them,” he said.

What is being done to increase educational opportunities?

FVTC is working on developing a sustainability curriculum with a goal of offering a two-year degree in environmental management.

Toshner hopes the state will approve the degree program so the college can start offering it by January 2011.

“So much about green energy is in the news now that there’s a lot of interest in it,” he said.

Lehman is a member of the U.S. Green Building Council’s curriculum committee and is a faculty member for the LEED or the Leadership in Energy and Environmental Design program.

Lehman said the building council had been leading efforts to certify green building projects, as well as develop the guidelines, but now exclusively focuses on education. The Green Building Certification Institute now oversees building certification.

“I’ve been working with the building council to develop courses,” she said. “The idea is to expose more people to the LEED concepts.”

How big of a role does renewable energy play in the green movement?

Toshner said agriculture provides many opportunities to explore alternative energy.

FVTC offers a course on bio-diesel production and is training students how to use bio-diesel on farms. The college has a working tractor that is fueled by bio-diesel made by students.

He said the college wants students to understand the importance of sustainability. “We’re showing ways we can try to meet the needs of the present without compromising the needs of future generations,” he said.

It goes further than creating alternative fuel. Toshner said in the food services department, biodegradable food products are composted.

“We’re trying to show all principles of sustainability in the broadest sense,” he said. “It really helps to give people an understanding of what we can do to reduce our carbon footprint.”

Loomans said as the nation works to reduce its carbon footprint and become less dependent on foreign oil, emerging technologies for power generation will lead to new opportunities.

“The more we participate in the world to address global climate change, we’ll see more demand for renewable energy,” she said. “This will result in growth in domestic businesses that want to provide that service and industries to support that sector.”

Additional Facts

Jobs that will build the green U.S. economy

Building retrofitting: electricians, heating/air conditioning installers, carpenters, construction equipment operators, roofers, insulation workers, carpenter helpers, industrial truck drivers, construction managers, building inspectors

Mass transit: civil engineers, rail track layers, electricians, welders, metal fabricators, engine assemblers, production helpers, bus drivers, first-line transportation supervisors, dispatchers
Energy-efficient automobiles: computer software engineers, electrical engineers, engineering technicians, welders, transportation equipment painters, metal fabricators, computer-controlled machine operators, engine assemblers, production helpers, operations managers
Wind power: environmental engineers, iron and steel workers, millwrights, sheet metal workers, machinists, electrical equipment assemblers, construction equipment operators, industrial truck drivers, industrial production managers, first-line production supervisors
Solar power: electrical engineers, electricians, industrial machinery mechanics, welders, metal fabricators, electrical equipment assemblers, construction equipment operators, installation helpers, laborers, construction managers
Cellulosic biofuels: chemical engineers, chemists, chemical equipment operators, chemical technicians, mixing and blending machine operators, agricultural workers, industrial truck drivers, farm product purchasers, agricultural and forestry supervisors, agricultural inspectors

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This is a good example of a private business taking charge and effectively exploiting "green" without government mandates..... Miron is setting the bar for their competition to get on board and compete with "green" initiatives or fall to the wayside..... nice job!

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