

# Training students in solar and wind, just the beginning

by Dr. Jean Goodnow, Delta College President



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Nationally, our country is addressing the relationship between energy, the environment and our economy. The focus is intended to leverage America's collective ingenuity to put people back to work, increase our energy independence and fight global warming. President Obama has outlined plans to ensure our energy comes from renewable sources: ten percent by 2012 and 25 percent by 2025.

The Great Lakes Bay Region has been working in this direction for some time and is quickly becoming known as the "Silicon Valley of Michigan". And, Delta College is uniquely positioned in the region to provide education, workforce training and retraining opportunities in alternative energy and "green jobs".

Delta College has key elements in place for training individuals in these emerging industries. First, the College has offered education in engineering and skilled trades for many years, so moving into the industrial maintenance of large-scale wind turbines is a natural progression of long-time programs.

Wind energy is becoming viable in the Thumb, with numerous wind farms being developed and rights purchased by major energy companies. With a new Wind Turbine Technology degree in place, Delta enrolled 50 students in its new program during the fall 2009 semester. Students will be trained to operate, repair and provide mechanical and electrical troubleshooting on the industrial/utility large-scale wind turbines.

A second key strength is Delta's strong and growing Chemical Process Technology program, which has been in place since 2002. An understanding of chemistry and physics is the basis of several industries, including solar production.

Within our region, Dow Corning Corporation creates products based on silicon chemistry for the energy industry; Hemlock Semiconductor Corporation (HSC) is a recognized global

leader in the manufacture and distribution of hyper-pure polysilicon for solar cell applications; and Dow Chemical Michigan Operations manufactures specialty chemicals. The projected employment demand with these firms is for more than 100 new hires each year for the next five years, with starting salaries of \$13-\$20 per hour.

The area's economic development partners – Saginaw Future, Bay Future and Midland Tomorrow – are also aggressively moving to identify and recruit second-tier suppliers to support the region's alternative energy industry. One of those successes is Evergreen Solar, which announced plans to build a factory in Midland County to be near crucial materials suppliers. The new factory will make string ribbon, a thin, fishing-line like material incorporated into solar wafers.

Finally, in early August, the U.S. Department of Energy announced it will award the new partnership of Dow Kokam a grant from the American Recovery and Reinvestment Act of 2009, to construct a new facility in Midland. That manufacturing plant will produce affordable advanced superior lithium polymer battery (SLPB) technology for the hybrid and electric vehicle markets, and is estimated to create 800 permanent jobs. Construction is also underway for the Dow Corning Monosilane gas facility with the potential for 30 new jobs. Delta College stands ready to discuss training options for these new jobs as well, when the time is right.

These initiatives have created high-skill, high-wage, high-demand Mid-Michigan employment opportunities that require a skilled workforce. Delta College continues to be "at the table" with our area's business leaders, and remains committed to providing highly qualified technicians for advanced manufacturers in the chemical, solar and wind industries. Our students, and the community, win when new programs are pursued and launched successfully. •

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