



Gaging the Wind

How strong is the wind energy market?

A record-breaking number of attendees and exhibitors were taking measure of the wind energy industry at the WINDPOWER 2009 Conference and Exhibition in Chicago in May. WINDPOWER 2009 was the world's largest wind energy conference and it hosted 1,280 exhibitors and over 23,000 attendees from 48 U.S. states and 46 foreign nations. The exhibition hall exceeded 290,400 square feet—more square footage than the 2008 and 2007 WINDPOWER shows combined. "The size and breadth of this show are a clear indicator that the wind energy industry is a hub of business activity even in this hesitant economy," said American Wind Energy Association (AWEA) Chief Executive Officer Denise Bode. Some of the highlights of the conference included:

- Siemens announced it will open a wind turbine nacelle manufacturing facility in Hutchinson, Kansas. Investment in manufacturing facilities in the U.S. has accelerated over the past two years, with over 55 wind turbine and wind turbine component manufacturing facilities announced, added or expanded in 24 states in 2008.
- Five Governors (Chet Culver of Iowa, Jim Doyle of Wisconsin, Jennifer Granholm of Michigan, Pat Quinn of Illinois, and Ted Strickland of Ohio) addressed the conference. The Governors of Kansas and Pennsylvania were also present. States and their offices of economic development are competing to attract wind turbine supply chain companies and create good jobs. At least 19 state or regional economic development offices exhibited at WINDPOWER 2009.
- Secretary of the Interior Ken Salazar, Energy Secretary Steven Chu (via a taped speech) and Federal Energy Regulatory Commission Chairman Jon Wellinghoff also addressed the conference. Secretary Salazar pointed to new rules for offshore wind farms that open the way for the U.S. to become a leader in offshore wind power.

Exhibitors from metal finishing industries included Clemco, Engineered Abrasives, Metal Improvement Company, Rösler Metal Finishing USA and Wheelabrator Group. Some are

pioneers in the wind energy business, some are new to the market and some are seeking business to supplement smaller work orders from the shaky U.S. automotive industry.



Ed Richerme

Engineered Abrasives

Engineered Abrasives received good leads from WINDPOWER 2009 and is already quoting a machine for a wind turbine supplier. "We just shipped a machine for the mining industry that would be perfect for peening wind turbine gears," said Richerme. "We're one of the leading shot peening machine suppliers to automotive power train companies and we apply the same advanced technology and years of experience to shot peening machines for wind turbine transmission gears."



Patti Roman and Hernan Azocar

Clemco

Clemco has been serving wind energy customers in Europe for decades, and with the U.S. growth in wind power, Clemco has recently sold blast room and media recovery systems to several turbine blade and wind tower manufacturers. Clemco exhibited to bring their experience in

blasting, media recovery, and shot peening to wind industry customers. According to Patti Roman, Vice President, Marketing, “With the economy in a slump, and traditional markets in turmoil, companies are drawn to this one bright spot—alternative energy—wind in particular. It was evident that this show attracted both exhibitors and attendees because no one wants to miss this boat. There were about 20,000 visitors, some of whom waited in line three hours to gain admittance. That speaks volumes about the event’s atmosphere.”



Graham Smith, Macon Jones, Pam Akin, Nick Szczechowski

Wheelabrator Group

Wheelabrator Group has a strong foothold in a variety of wind energy businesses—from wind tower OEMs to automotive suppliers transitioning into the wind industry. “Wind energy has been our growth opportunity especially during this current economic downturn. When the economy recovers, Wheelabrator Group is globally positioned to grow with the future demands of the wind energy sector,” said Pam Akin, Wheelabrator Marketing Manager, North America.



Metal Improvement Company

“It was a good show for us,” stated Mark Renius, Director

of Sales, North America for Metal Improvement Company (MIC). “We met with customers and prospects, a good variety.” MIC is aggressively pursuing the power generation industry. They marketed shot peening at the show as a way to prevent component failures and enable greater loads to be applied on critical design features in wind turbine shafts and gears. MIC also promoted their engineered coatings that provide corrosion resistance and wear protection. In addition, MIC offers on-site processing worldwide which is ideally suited to needs of the wind industry.

Germany has already proven that a renewable energy industry can bolster an economy. Home of Mercedes-Benz and Volkswagen, Germany will have a larger green sector than automotive industry by 2020, according to a recent study by Roland Berger Strategy Consultants in Munich. In the late 1990s, Germany’s government pushed through major changes to their energy and recycling policies. The mandate for the creation of a number of incentives to drive environmentally friendly industrial development and alternative energy are maturing now: Germany has created 250,000 new jobs in renewable energy, including nearly 50,000 wind-power jobs in the last five years alone. Almost half of all the wind turbines worldwide are today produced in Germany.

While America is unwilling to commit to renewable energy with the same resolve as Germany, the U.S. is becoming more receptive to green legislation. Barack Obama promised a green policy during his presidential campaign and The American Recovery and Reinvestment Act of 2009 was passed by the United States Congress and signed into law by President Obama in February 2009. The stimulus plan allocates enough capital over the next three years to eventually double domestic renewable energy capacity. In addition, the passing of a Renewable Electricity Standard (RES) into law is being debated by the U.S. Congress this summer. According to a poll released by the American Wind Energy Association (AWEA), over 75% of Americans support a RES. The initial RES would require that 25% of the nation’s electricity be generated from renewable energy by 2025. However, at the time this article was written, significantly lower renewable targets are being discussed in Congress and the bill could pass in a greatly diluted form.

Even if the U.S. federal government doesn’t pass a strong RES, individual states can set their own standards and pursue renewable energy. Michigan, the epicenter of the U.S. automotive industry meltdown and subsequent job loss, has set a RES of 10% of the state’s energy to come from renewable sources by 2015. The industrial behemoth that created work for hundreds of thousands of companies throughout the world is welcoming innovative, green companies. “Michigan’s political and business leaders assert that Michigan’s manufacturing prowess, its vast wind, fresh water and farm resources, and its location at the center of the Great Lakes shipping lanes will enable it to compete in a range of clean energy industries. The Department of Energy last year identified Michigan as one of the prime locations in the country for building and using wind turbines to generate electricity,” writes journalist Keith Schneider in his article, *Michigan’s Sun, Wind Sprout New Clean Energy Jobs Sector*. Close to 700 Michigan manufacturers now do wind industry work. Many of them were, or

still are, auto-industry suppliers. Changing over from automotive to wind industry work isn't difficult. Even though the parts are much larger, the process of making them is very much the same.

As the wind industry grows and matures in the U.S., it will need Maintenance, Repair and Overhaul (MRO) services. Research and Markets, an international research and market data firm, presents interesting statistics in its report titled "Growth Opportunities in Wind Maintenance, Repair and Overhaul Service Market 2008-2013":

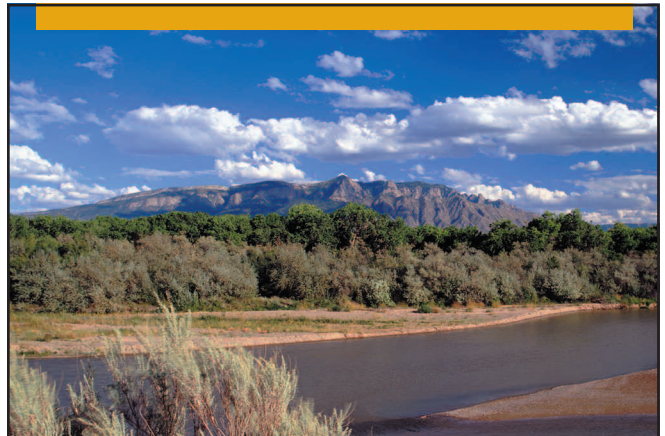
- Gearbox, generators and wind blades constitute 90% of all MRO costs
- The key MRO markets will be in the U.S. and China
- The MRO market will grow 24% in the U.S. and China (14% in Europe)
- As the market matures and demand for MRO services outstrips supply, the research company sees a strong shift to third-party contracting by OEMs and the growth of independent service providers

So what is the wind gage telling us? Nimble and aggressive shot peening and blast cleaning OEMs and job shops can expect their pipelines to fill with wind energy-related work. It's not going to be as easy to get and it's not going to be as plentiful as automotive work was in the past. Companies like Clemco, Engineered Abrasives, Metal Improvement Company, Rösler and Wheelabrator Group are first in line to service a green economy. These companies all joined AWEA—they had to be members to exhibit at WINDPOWER 2009—and the benefits of membership are inside knowledge and a networking track with qualified prospects that are serious about looking for new equipment and technologies. Visit www.awea.org to learn more about the organization. Review the Upcoming Events list to see if these events can benefit you. (Studies show that the cost per sale generated through a trade show or event is almost half as much and takes about a third of the time as a sale generated any other way.)

The U.S. wind energy industry is dependent to a large degree on national policy and it wasn't immune to the recession's cruel blow. Yet there are enough indications that it's a growth industry, it creates business for the metal finishing market, and it's work that you can feel good about. ●

The New Green Collar Workforce

We know about white collar, blue collar and even pink collar jobs, but our most exciting job sector may be the new green collar workforce. Green collar jobs aren't high-tech jobs that require a college education. Van Jones, author of *The Green Collar Economy*, describes green collar jobs as "blue-collar employment that has been upgraded to better respect the environment." Shot peening and blast cleaning operators working on wind turbine components can be proud to call themselves green collar craftsman.



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