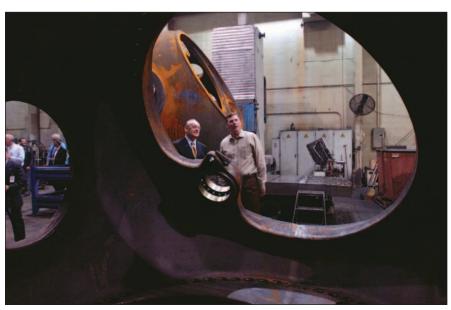
## VOICES

## Ohio is Forging Strong Links in Wind Turbine Supply Chain

By Lt. Governor Lee Fisher

—Director, Ohio Department of Development



Ohio Lt. Governor and Director of Economic Development Lee Fisher on a tour at wind energy supplier Magna Machine near Cincinnati. Ohio has worked diligently to become a U.S. leader in the manufacture of wind turbine components in a remarkably short time.

Energy is the force that quite literally shapes the economic climate for Ohio's existing and future businesses, and we have an opportunity and an obligation to maintain the competitive advantage of Ohio's businesses by ensuring sound, reliable access to and delivery of power.

Perhaps nowhere on earth is the economic climate more strongly connected to the availability of affordable energy than Ohio. Ohio is fifth among the states in overall energy consumption, and our economy spends more than \$30 billion on energy every year.

Right now, as a host of geopolitical, economic, and environmental issues converge on the single subject of global energy supply, every current and emerging industrial power is urgently seeking new forms of energy to keep businesses and lives running smoothly, to build energy independence, and to keep the environment intact. An increasingly diverse array of Americans—business leaders,

government officials, environmentalists and consumers—is concerned about what many people perceive to be an uncertain energy future.

Our country's present energy challenges provide Ohio with a unique and exciting opportunity to secure quality jobs of the future while safeguarding our state's businesses, families and our environment. Ohio is perfectly positioned to supply the ideas, the equipment and the processes the world needs. We are seizing the moment that is before us and investing in our Advanced Energy future, particularly in the area of wind.

Wind energy is the world's fastest-growing energy resource, and Ohio can capitalize on this rapidly growing industry by leveraging our existing strengths and assets. Already, the wind industry is creating wealth and jobs across Ohio. In 2006, wind generated \$250 million in revenue, creating a total of 1,700 direct and indirect jobs in our state.<sup>1</sup>



When it comes to wind, Ohio has the best supply chain in the country. At present, our state has more than 50 globally competitive companies spanning the state in the wind energy supplychain. Avon Bearings Corporation in Avon, and Rotek International in Aurora are the only U.S. manufacturers of slew rings and bearings for the wind industry, while Magna Machine in Cincinnati machines nose cones and wind turbine housings. From castings for gearboxes, to bearings, to tension bolts, to pitch control systems, Ohio companies already are manufacturing key components for this rapidly growing industry.

Many companies, well-known for producing products for industries other than energy, are getting into the game. This is true for both large and small companies. Owens Corning in Toledo is translating its materials expertise to improve the blades used on wind turbines. Minster Machine of Minster, a family-owned machine press manufacturer established more than 100 years ago as a blacksmith shop, has launched a new division- Minster Wind. A compelling testament to the potential of the advanced energy industry as a jobs and wealth generator, Minster Wind aims to re-position the company away from a declining industry to the advanced energy sector through the manufacturing of wind turbine components.

Growing a strong supply chain is important for two reasons. First, it will create new jobs and investment from current Ohio component manufacturers. Second, it will attract new companies to Ohio by providing the critical necessary resources, access to a skilled workforce, manufacturing capacity, and transportation infrastructure as well as

continued

proximity to wind resources. The Great Lakes Wind Network has begun the process of assisting and growing the Ohio wind supply chain by connecting leaders from manufacturing companies serving the wind sector through educational programs and networking opportunities.

Ohio's existing assets place us in an excellent position to capitalize on the growing advanced energy industry. By leveraging our historic strengths—our large manufacturing base and dedicated workforce—we have the ability to capture and sustain a competitive advantage in the industry by producing

the key components of advanced energy sources. A commitment today to advanced energy will reap enormous rewards tomorrow. The Renewable Energy Policy Project, for example, found that Ohio has the second-greatest job-generating potential in the country in advanced energy—second only to California— with a potential for 24,000 new jobs.





Ohio was cited by the Renewable Energy Policy Project as having the second-greatest job-generation potential—24,000 jobs—in the country.

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Lakes Wood County Wind Farm in Wood County from the Department's newly created Ohio Wind Production and Manufacturing Incentive Program. These large-scale wind power projects are catalysts to attract potential wind manufacturing-related jobs.

In order to secure those jobs, Ohio must prove its commitment to advanced energy use. This is why Governor Ted Strickland's "Energy, Jobs and Progress" plan includes an Advanced Energy Portfolio Standard requiring that at least 25 percent of the electricity sold in Ohio be generated from advanced energy technology by 2025. Half of that advanced energy must be produced in Ohio, and half must be from renewable sources.

When it comes to attraction and retention of jobs in a state, an Advanced Energy Portfolio Standard is becoming an increasingly important variable. Over the last two years, eight wind turbine manufacturing companies have set up operations in the United States, with seven of those companies located in states with a Renewable Portfolio Standard. Our regional neighbors, with whom we regularly compete— Pennsylvania, Illinois, Minnesota and Iowa-already have Renewable Portfolio Standards in place. Several companies with operations in Ohio, such as General Electric, Ohio's second-largest manufacturer, have the opportunity to manufacture components of wind turbines here but currently are choosing to do so closer to centers of demand. Component production has incredible potential for Ohio; a Portfolio Standard will create the baseline demand to get these new opportunities sited in our state.

Advanced energy is expected to grow from a \$55 billion global market to a \$226 billion global market in a decade. Wind power alone is projected to grow from a \$17.9 billion to a \$60.8 billion market, according to Clean Edge, an investment research and publishing firm. Ohio's rich manufacturing legacy, our talented workforce and work ethic, our proximity to the major electric load

centers and to wind resources, and our transportation network from barges to rail to highway can all be leveraged towards attaining global leadership in renewable energy industries. Ohio is ideally situated at the nexus of the required supply chain and consumer base.

The moment to build an advanced energy industry in Ohio is now.

Lee Fisher,

Lt. Governor of Ohio

Source: Management Information Services, Inc., and American Solar Energy Society, 2007

