



# 10 Reasons For a Growing Wind Industry

## Innovation Could Bring 18,000 Jobs to the State in 10 Years



The wind industry in Oklahoma represents tremendous economic development potential. In fact, Oklahoma could lead the nation in wind energy production by the year 2030. To help make this happen, the Oklahoma Department of Commerce and its statewide network of partners are working as diligent advocates and promoters of the industry.

“Considering Oklahoma’s capacity, the wind industry represents another exciting chapter in the diversification of our energy production portfolio,” says Commerce Secretary Natalie Shirley. “As the state’s lead economic development agency, we want to bring all the players together to build an industry cluster and prepare a workforce ready to succeed in the green technology fields.”

Within five years, the wind industry could create 6,919 jobs across the state with salaries ranging from \$44,900 the first year to \$60,400 within five years. About \$1.48 billion in total personal income should be created from the wind industry alone. Total economic activity over the next five years, represented by GDP, will be greater than \$2.48 billion.

Media reports say the industry could produce \$500 million in tax revenue and 18,000 jobs for Oklahoma over the next 10 years.

The state plans to implement an integrated strategy that includes wind power production; wind power transmission and distribution (T&D); wind power consumption; wind-component manufacturing; research and development, new technology commercialization, and education and training.

“We’re not just making room for a wind energy industry in Oklahoma,” Gov. Brad Henry says. “We are embracing the industry and want to do all we can to harness every bit of capacity we can deliver to the nation’s grid. We want to be the leader in production, and, as we’ve done with our aerospace industry, Oklahoma wants to become a hub of other industry activity, including training, component supply and maintenance. We have all the pieces right here, and they’re coming together.”

### Fast Fact



The National Renewable Energy Laboratory projects that by 2030 Oklahoma will be the second-largest generator of wind power in the nation.

# Top 10 Wind Industry Growth Indicators:

## Wind Power Production:

- 1 Based on analysis conducted by the National Renewable Energy Laboratory (NREL), the Oklahoma Wind Power Initiative (OWPI) predicts Oklahoma will be the second-largest generator of wind power in the nation by 2030. Already ranked among the nation's top 10 wind energy producers, Oklahoma – according to the U.S. Department of Energy – could generate 9 percent of the nation's total electricity needs.
- 2 Oklahoma produces almost 700 MW on five utility-scale wind farms currently online. The Keenan Wind Farm in Woodward represents the most recent wind power facility announced. Developer CPV Renewable Energy Company expects to produce 101 MW and be operational in 2009. According to the Southwest Power Pool – a regional transmission organization that oversees the electricity grid for eight states, including Oklahoma – developers plan to produce thousands of megawatts over the next few years at wind farms throughout western Oklahoma.

## Wind Power Transmission & Distribution:

- 3 In May 2008, Gov. Henry signed HB2813, which gives utilities the ability to recover investments made in wind energy transmission.
- 4 In September 2008, the Oklahoma Corporation Commission (OCC) granted Topeka, Kansas-based ITC Great Plains utility status, giving it the ability to construct, own, operate and maintain electric transmission lines in Oklahoma. Utility status allows ITC to move forward with plans to facilitate the development of wind energy in the state by investing in critical grid infrastructure. The OCC also approved an order allowing Oklahoma Gas & Electric to recover investments in a transmission line from Oklahoma City to Woodward. The 115-mile, 345kV should be completed by 2010 and will transmit electricity from the Centennial Wind Farm and the Oklahoma Wind Energy Center.

## Wind Power Consumption:

- 5 In 2004, Western Farmers Electric Cooperative (WFEC) became the first Oklahoma utility/electricity co-op to purchase and offer wind energy to its members. Today, all of Oklahoma's major electric utilities – Public Service Company of Oklahoma, OG&E and the Oklahoma Municipal Power Authority – offer wind energy. In 2008, PSO, already the state's largest distributor of wind power, issued an RFP (request for proposal) for 200 MW of additional renewable energy; OG&E committed to more than quadruple the amount of wind energy in its power portfolio either through production or purchase; and WFEC issued an RFP for 25MW to 200MW of renewable energy.
- 6 Marking one of the largest renewable energy commitments ever by a public university, the University of Oklahoma recently signed a wind power purchase agreement with OG&E designed to cover 100 percent of the university's

energy needs. With this agreement, OU ranks among the nation's top renewable-energy-purchasing universities in the country.

## Wind-Component Manufacturing:

- 7 The Oklahoma Department of Commerce recently released a two-page briefing that shows Oklahoma's employment in potential wind-component manufacturing industries is on the rise. And, annual wages equal \$40,709, which is almost 15 percent higher than the average wage in the state as a whole.
- 8 Since bringing DMI Industries, North America's leading wind tower manufacturer, to Tulsa in late 2007, the Commerce Site Selection Fast Forward Team has been recruiting tower, turbine, nacelle and blade manufacturers as well as component suppliers and maintenance and repair operations. "We are taking calls almost weekly now from others interested in taking part in Oklahoma's wind energy industry," says Sandy Pratt, Commerce Deputy Director for Business Services and leader of the Site Selection Fast Forward Team.

## Wind R&D and New Technology Commercialization:

- 9 The University of Oklahoma, Oklahoma State University, Oklahoma City Community College (OCCC), CareerTech, OWPI, NanoWeather, and Weather Decision Technologies formed a multi-disciplinary team to conduct research in the areas of wind resource development and wind forecasting; develop geospatial technologies for the wind and weather science industries; commercialize these products through new enterprises and existing Oklahoma businesses, and train the workforce needed to further the growth and prosperity of Oklahoma's emerging wind industry.

## Wind Education & Training:

- 10 The wind industry expects technician demand in Oklahoma to grow over the next two to four years as transmission infrastructure expands and new wind power plants start producing. For example, OG&E expects to need a minimum of 60 technicians per year for the next 15 years, beginning in 2010 as it expands transmission capacity. To meet this need, OCCC launched Oklahoma's first turbine technician training program in 2008. The college plans to offer alternative energy and alternative power program options for its existing pre-engineering curriculum. OCCC and the Oklahoma Safety Council recently developed an OSHA-approved safety course for technicians working in the wind industry. OSU-Oklahoma City has launched a degree program for turbine technicians, and CareerTech has introduced, through High Plains Technology Center in Woodward, the six month Wind Power Maintenance Technician Program, which includes all facets of safety, tool operation, electrical theory and practice.