

# Riding the breeze

*Wind energy development poised for significant growth in Michigan*

By James K. O'Brien, Esq.

*"We know that the country that harnesses the power of clean, renewable energy will lead the 21st century."*

— President Barack Obama,  
February 2009 address to Congress

Clean energy from the sun, wind, biomass and the force of water has captured the national imagination.

One of the hottest sources of that energy in Michigan right now is wind, with numerous projects underway to take advantage of the state's shorelines and their naturally windy environments.

But the new movement faces a number of challenges.

The complexity of planning, permitting and constructing new

power-generating equipment, the high initial cost relative to conventional sources of power, and the difficulties in connecting to an aging power distribution infrastructure are among the many challenges that await the would-be clean-energy entrepreneur.

Help is on the way, however, in the form of a dazzling array of loans, grants and tax credits, as well

Although there are many variables affecting how potential wind energy is measured, Michigan is generally ranked 14th among the states in usable wind energy resources.



as detailed siting information and clean energy mandates, all designed to stimulate construction of clean alternatives to fossil fuel.

A number of those new developments specifically relate to wind-powered generation of electricity on the state and national level.

Although there are many variables affecting how potential wind energy is measured, Michigan is generally ranked 14th among the states in usable wind energy resources.

A 2004 Department of Energy study calculated Michigan's wind resources at 16,560 megawatts (MW) of onshore wind generation potential. A megawatt hour is 1 million watts, which could power 10,000 100-watt light bulbs.

More than 300,000 MW of power could be generated if a sufficient number of towers could be erected offshore in the Great Lakes.

By any measure Michigan is rich in wind energy, but to this point, has lagged far behind other "windy" states in development of its wind resources.

Even though Michigan has trailed in wind-power generation to this point, it is clearly poised for a growth spurt in the immediate future. Detailed and sophisticated geographic information systems and measurement tools have identified and mapped

potential for generation of wind energy.

The Land Planning Institute (LPI), for example, offers a "wind prospecting tool" for determining areas most appropriate for wind energy development. Using a 1,000-point scale, LPI studies such variables as wind speed, proximity to agricultural and forest land, land cost, population density, and population density trends.

It also has determined the top 10 most favorable areas for wind-power development.

The cost per kilowatt hour of wind-generated energy has dropped dramatically over the past 20 years. Taking into account federal production tax credits, the average cost varies between 3 cents and 5 cents per kilowatt hour. This compares favorably with the 2 cents to 5 cents per kilowatt hour for electricity generated by a coal-burning power plant.

Michigan, like many states, has passed a Renewable Portfolio Standard (RPS) mandating 10 percent of Michigan's energy usage must come from renewable sources by 2015.

Recognized types of alternative energy systems in Michigan are described in The Michigan Next Energy Authority Act, 2002 PA 593, MCL 207.821, which includes a "wind energy system" section 207.821 (c)(iv).

Public Act 295 of 2008, the Clean, Renewable, and Efficient Energy Act, required the

Michigan Public Service Commission to create the Wind Energy Resource Zone Board.

Its purpose is to consult with local units of government in the study of wind-energy production potential; the viability of wind as a source of commercial energy generation; and the availability of land in this state for potential utilization by wind energy conversion systems.

The board is required to issue a proposed report no later than June 2, 2009.

Those factors, and similar considerations, will be taken into account by the Great Lakes Wind Council, an advisory body within the Michigan Department of Energy, Labor, and Economic Growth that will provide citizens with a public forum to begin to identify where, in the Great Lakes, wind-energy systems may be prudently sited.

With all of this activity, including numerous incentives, it's certain change is in the wind for Michigan.

-----  
*James K. O'Brien is the chair of the Environmental Practice Group at Dean & Fulkerson P. C. in Troy, where his practice focuses on environmental aspects of regulatory, compliance, and transaction counseling for industrial, commercial, energy and transportation related clients. Contact him at 248-362-1300, or jobrien@dflaw.com*

## There are generous federal incentives for clean energy

The American Recovery and Reinvestment Act of 2009 (ARRA) includes more than \$70 billion in direct spending and tax credits for clean-energy and transportation programs, including \$11 billion toward a "smart" energy distribution grid and \$20 billion in tax incentives and credits for renewable energy, plug-in hybrids and energy efficiency.

### ARRA also:

- Extends the Production Tax Credit (PTC) (Section 1101 of ARRA) for wind energy for three years, through Dec. 31, 2012.
- Gives large-scale wind energy producers the ability to claim a 30 percent (of the value of the system) investment tax credit (ITC) in place of the production tax credit (PTC) (Section 1102). Opting for

the ITC allows a sale and leaseback of the wind generation facility to occur without loss of the tax credit, or receive an equivalent financial grant instead of the ITC or PTC from the Treasury Department, if the wind-generation equipment is placed in service in the next four years.

- For farmers: the Farm Bill 9006 renewable energy, and Energy Efficiency Program provides grants of up to 25 percent of the cost of a qualifying renewable energy system, based on a showing of need.

For more information, visit the Department of Energy and the American Wind Energy Association Web sites at [www.awea.org](http://www.awea.org) and [www1.eere.energy.gov/windandhydro](http://www1.eere.energy.gov/windandhydro).

## State offers a variety of inducements for green projects

- Michigan Centers of Energy Excellence grants (MCL 125.2088b) provide funding for innovative technology ready for commercial application in three years or less.
- NextEnergy helps to connect alternative energy development companies with a variety of funding resources — from public agency research grants, to pre-seed and seed funding, to venture capital investment, to specialized tax incentives from local governments. More details can be found at [www.nextenergy.org/services/funding.aspx](http://www.nextenergy.org/services/funding.aspx).
- Renewable Energy Resource Zones Renewable Energy Facilities lo-

cated in a Renewable Energy renaissance zone do not pay Michigan Business Tax, state education tax, personal and real property taxes, or local income tax where applicable. Taxes are still payable to the federal government and for local bond obligations, school sinking fund or special assessments, and Michigan sales and use tax. Michigan Economic Development Corporation and local community approval is required.

For an overview of Michigan and other states incentive programs for wind and alternative energy, visit the Database of State Incentives for Renewables and Efficiency Web site at [www.dsireusa.org](http://www.dsireusa.org).