

## Wind Power and Iowa Schools

The 2007 legislative session has before it many proposals to help Iowa achieve energy independence. Many legislators realize embracing renewable energy and energy efficiency could place Iowa at the center of the new energy economy and create profits and jobs for Iowans. In the midst of these discussions it is worth highlighting one area where Iowa has particular potential: More of our schools could become wind power producers.

With 10 schools already producing electricity from wind turbines, Iowa is a national leader. Our school personnel and government agencies have firsthand experience, providing a solid foundation for expansion. Iowa should help its schools, colleges and universities remain at the forefront, because the benefits reach beyond classroom walls. For example:

### ✧ Using the wind's free power saves money for education.

Each school that operates a turbine saves or generates between \$3,500 and \$560,000

annually. The amount varies by the turbine's size, the average wind speed and the price negotiated with a school's electric utility. These savings allow schools to spend more on student instruction.

### ✧ Wind power presents a unique educational opportunity.

At Spirit Lake Community School District, two turbines have been used as material for a book written by first graders, in speech classes to debate energy issues, in statistics class to calculate production figures, in computer classes to create a turbine webpage, and in government classes, where students have lobbied the Iowa Legislature for policies that would allow more schools to install turbines. Using wind and other renewable energy and energy efficiency measures in schools exposes Iowa students to technologies that will play an increasing role in the future. This gives our students a leg up and Iowa employers a pool of qualified applicants.

### ✧ Turbines provide security for schools threatened with consolidation.

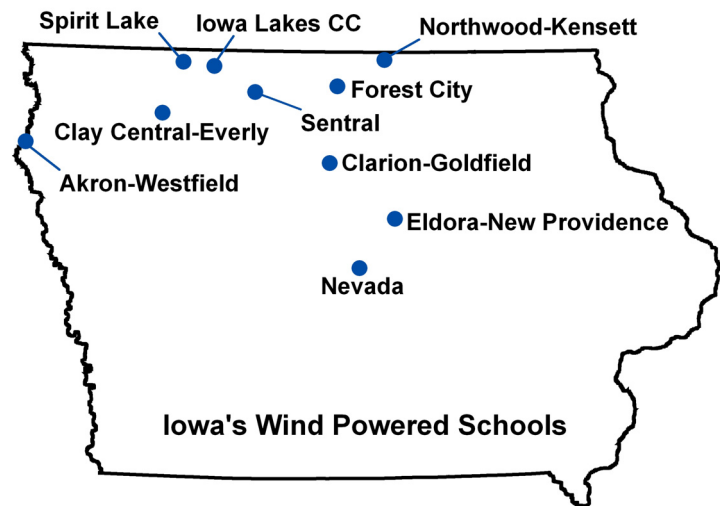
At Sentral Community School District, near the tiny town of Fenton, consolidation has long been considered. The electricity savings generated by the turbine help keep the building open.

### ✧ Producing clean energy helps schools reduce their environmental impact.

Forest City Community School District's turbine annually produces about 60 percent of the district's electricity consumption. This clean, locally grown power has allowed the district to reduce its carbon dioxide emissions by 657 tons and sulfur dioxide emissions by 2.9 tons annually.

### ✧ In every case, the school's turbine became a source of community pride.

At Iowa Lakes Community College, residents in lawn chairs watched installation of a 1.65-megawatt turbine for the nation's first wind energy and turbine technology training program. Community ownership has grown by offering "open houses" that allow residents to climb inside the base of the tower.





Forest City's 600 kW turbine watches over students at recess.

School-owned turbines account for only a small share of the wind power installed in Iowa (5.5 out of 936 megawatts). And, they barely foreshadow what is possible. The state has the 10<sup>th</sup> highest wind potential in the nation and 40 percent of Iowa has adequate wind speeds for wind power development.

Several Iowa schools are interested in installing turbines, yet face challenges. Iowa does have many outstanding policies and programs encouraging the development of wind power, but more could be done to facilitate the use of this nonpolluting, educational and economic resource.

With the current focus on energy now is the time to ensure Iowa and its schools remain leaders in renewable energy production and reduced energy consumption, guiding the nation into the 21<sup>st</sup> century and the clean energy economy.

### Other Renewable Energy & Energy Efficiency Opportunities

Although there is vast potential for more Iowa schools, colleges and universities to become wind power producers, policies should encourage schools to choose the most appropriate technology. A few schools have begun to explore other technologies:

- Muscatine Community School District installed a solar panel to generate electricity.
- James Van Allen Elementary in North Liberty is Iowa's first Leadership in Energy and Environmental Design (LEED) certified school. This award means the building was designed with comprehensive energy efficiency measures.
- Nevada Community School District's school buses run on 100 percent soy biodiesel.
- Many schools across Iowa have installed geothermal heating and cooling systems.

Using a combination of renewable energy and energy efficiency technologies can provide the best classroom environment and important educational opportunities for students, all while schools save money on energy.

## The Iowa Policy Project

For the full report, see  
[www.iowapolicyproject.org](http://www.iowapolicyproject.org)

The Iowa Policy Project is a nonprofit, nonpartisan research organization based in Mount Vernon. See our reports at [www.iowapolicyproject.org](http://www.iowapolicyproject.org). Contributions to the Iowa Policy Project are tax-deductible.

318 2<sup>nd</sup> Ave North • Mount Vernon, Iowa 52314 — 120 N. Dubuque St #208 • Iowa City, Iowa 52245  
 319-338-0773 • [www.iowapolicyproject.org](http://www.iowapolicyproject.org)