

# Wausau East High School

**Location** Wausau, Wisconsin

**Description** 336,000 sq. ft. K-12 Public high school building, built in 2004

**Annual electrical consumption**  
2.6 million kWh

**Major load center** HVAC

**Average wind speed** 11.4 mph

**Wind incentives** Walter Alexander Foundation; Focus on Energy; Wisconsin Public Service Response Rewards

**Current utility rate** 5 cents

## Teacher Brings the Lessons of Wind Power Right to the Classroom

Lauren Ebbecke, Energy Educator of the Year for Wisconsin, wanted to do more than teach energy lessons from a textbook. With the support of the school district, the local community and a private foundation, she led the creation of Wisconsin's first High School Renewable Energy Center, featuring the Northern Power™ 100 turbine. Gaining local approval for the project was easy, given Northern Power 100's right fit, reliable, safe and quiet operation, and ample educational opportunities. The students were even more enthusiastic, "All the kids, from the youngest to the oldest, were excited about the turbine. Every day they'd ask, 'When's it going to turn?' And every day I'd say, 'Soon. I promise.'"

**“This was so easy! Our city council meeting ended in 15 minutes flat with a unanimous vote to approve the project.”**

— LAUREN EBBECKE, WAUSAU EAST HIGH SCHOOL SCIENCE TEACHER AND 2009 ENERGY EDUCATOR OF THE YEAR



### The Whole Community Celebrates

Wausau East chose the Northern Power 100 because of its "phenomenal" track record with maintenance due to its advanced gearless design and 24/7 monitoring capabilities. The school administrators wanted to make sure they could focus on their business at hand, educating students, and not worrying about costly fixes and complicated maintenance support that are typical with conventional gearbox turbines.

**“When making an investment for a school, you need to know that the turbine will be up and running 30 years from now. This was it.”**

– LAUREN EBEBECKE

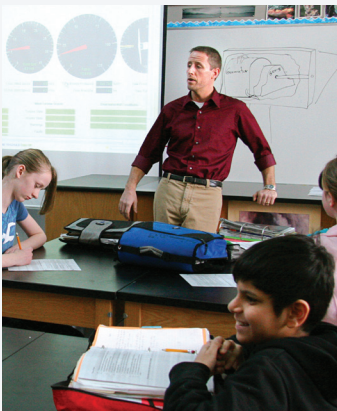
#### Results\*

Energy produced per year	120,602 kWh
Electricity savings	\$14,472
Economics	4 year payback with grants and incentives
Estimated carbon emissions offset	96 tons per year**

\*These are projected results based on average wind speeds in a specific area. Wind speeds vary and therefore, actual results may vary.  
 \*\*CO<sub>2</sub> offset estimated by using EPA's eGRID 2007

### Educational Opportunities

Kids can access turbine data information through their PublicView and StudentView web portals—bringing the lessons of the turbine right into the classroom. Lauren and her colleagues use this educational resource across curricula and throughout all grade levels to track wind speed, historical data, and energy efficiency.



### The Right Fit

The turbine's low height profile, quiet operation, elegant design and energy savings made it a perfect fit for a school campus where children, parents and community members visit, learn and interact every day.

### A Smart Investment in Tomorrow's Green Energy Leaders

The Northern Power 100 has put Wausau on the map for energy education, serving as a model both state-wide and nationally. Wausau teachers, parents and project donors believe the project will inspire the next generation of students to go on to solve the energy challenges of the future. "As teachers, we'd much rather be hands-on. The turbine is real, it's tangible, it's right at our school. We can learn about renewable energy without a textbook." The school will also save almost half a million dollars on utility bills and offset nearly 2,850 tons of carbon over the life of its' turbine—a smart investment through and through!



Installation services were provided by Seventh Generation Energy Systems.

CS-0910