Performance Services

NEWS RELEASE

February 4, 2011

Purdue wind energy park would offer research, education

WEST LAFAYETTE, Ind. - Purdue's Board of Trustees on Friday (Feb. 4) permitted the university to pursue leasing land as part of a 60-turbine commercial wind energy park to create and enhance Purdue research and educational opportunities for Indiana students.

The project of the university, Purdue Research Foundation, General Electric Co. and Performance Services Inc. is proposed for Purdue's Animal Sciences Research and Education Center (ASREC) and adjacent private property. The location was selected for its ideal wind conditions.

Performance Services would develop the Purdue Energy Park at ASREC as a commercial venture, leasing the property from the foundation. The operation would be available to Purdue for research and education.

"Renewable energy has been a focus of the College of Agriculture for many years," said Jay Akridge, Glenn W. Sample Dean of Purdue Agriculture. "This project presents an excellent opportunity to explore bringing wind energy to our animal sciences farm, and we look forward to investigating the research and education activities this new park would make possible."

The Purdue Energy Park at ASREC would be powered by GE's 1.5 Series wind turbines, the most widely deployed wind turbines in the world. The 100 megawatts of electricity the total operation could produce - enough to power 25,000 U.S. homes for a year - would be sold to a utility. Some of the power would be a potential additional energy source for the university.

GE and Purdue, which would collaborate on research and development programs to advance wind turbine technology, have a strong history of working together on projects that support innovation, education and industry, said Jim Suciu, vice president of sales and marketing for GE Energy.

"We are excited about this partnership and the potential it holds not only for Purdue students interested in careers in renewable energy but also for the real-time testing and development of our wind turbine technology in a wind park setting," Suciu said.

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Development of the energy park is contingent, in part, on replacing ASREC's animal-waste management system - center pivot irrigation - with a state-of-the-art animal waste treatment facility that would have potential for a methane digester to generate electricity. The energy park could create research opportunities into animal waste management systems for Indiana farms.

Other key provisions necessary for the project to move forward include obtaining state approval for leasing Purdue property and ensuring there is only minimal disruption of existing research.

The project would require final board approval.

The wind park aligns with Purdue's "New Synergies" strategic plan to provide field-defining research opportunities and partnerships to address global needs.

The partnership represents an unprecedented opportunity to improve the energy capture and reliability of wind turbines while simultaneously researching how wind energy affects the environment and agriculture, said Douglas Adams, Kenninger Professor of Renewable Energy and Power Systems in Purdue's College of Engineering.

"We as researchers hardly ever get to do tests on an entire system, in this case, an entire wind farm that is connected to the power grid. And that is what this opportunity will allow us to do," Adams said. "Imagine how much we could learn inside of a commercial wind farm operation. We could take data we've never even dreamed of taking before for days, months, even years."

Purdue Research Foundation would handle leasing arrangements for about 1,600 acres of Purdue land 10 miles northwest of campus off U.S. 231 in northern Tippecanoe County, where half of the turbines would be built. The other half would be erected on more than 2,400 acres of private property north of ASREC known as Performance Park, a proposed Performance Services wind farm.

The combined operation would be among the first large-scale commercial wind parks with a focus on research and education.

Performance Services would serve as the design-builder on both properties. It is conducting negotiations with a major financial investor for the commercial venture.

Construction requiring about 200 workers would begin in April 2012, and the wind park would be in operation by the end of that year. There would be six full-time, permanent jobs for ongoing operations and maintenance.

An important component would be a Welcome and Innovation Center, with a focus on graduate, undergraduate and kindergarten through 12th-grade education. Students, for example, could read live wind data and engage in other educational activities there. Such

outreach conforms to Purdue's land-grant mission to serve the public through discovery, extension and learning.

The wind park is a landmark project for Indiana public education, said Tim Thoman, Performance Services president and founder.

"We have a unique opportunity to create relevant and engaging learning experiences about renewable energy for generations," he said.

The project helps place Indiana as a leader in addressing global challenges, said Joseph B. Hornett, senior vice president, treasurer and chief operating officer of Purdue Research Foundation.

"What's significant about the partnership is that it breaks new ground in developing collaborations between higher education and industry with common goals of supporting current and future research, creating jobs, and enhancing education," he said.

About General Electric:

GE serves the energy sector by developing and deploying technology that helps make efficient use of natural resources. With nearly 85,000 global employees and 2009 revenues of $37 billion, GE Energy is one of the world's leading suppliers of power generation and energy delivery technologies. The businesses that comprise GE Energy - GE Power & Water, GE Energy Services and GE Oil & Gas - work together to provide integrated product and service solutions in all areas of the energy industry, including coal, oil, natural gas and nuclear energy; renewable resources such as water, wind, solar and biogas; and other alternative fuels.

About Performance Services Inc.:

Performance Services is an Indianapolis-based design-build engineering company that specializes in constructing and renovating schools, universities and health-care facilities to deliver optimal environments through both the Guaranteed Energy Savings Contract and Design-Build procurement methods. Innovative wind power and geothermal systems are integral to the energy services portfolio. The company has provided energy solutions to schools since 1998 and is the leading service provider of guaranteed energy savings projects and Energy Star labeled schools in Indiana.

About Purdue Research Foundation:

The Purdue Research Foundation is a private, nonprofit foundation created to advance the mission of Purdue University. Established in 1930, the foundation accepts gifts;

administers trusts; funds research, scholarships and grants; acquires property; and negotiates research contracts on behalf of Purdue. In the 1990s, the foundation was charged with helping the university in the realm of economic development. The Purdue Research Foundation oversees the Purdue Research Park, which is the largest university-affiliated business incubator in the country.

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