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# BUSINESS sphere

Vol. 21 No. 2

NEWS FROM THE IOWA DEPARTMENT OF ECONOMIC DEVELOPMENT

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### Trinity Structural Towers helps lowa go 'green'

Two Newton, Iowa-based leaders in wind energy — Trinity Structural Towers and TPI Composites — making significant advances in renewable energy field

ith Newton, Iowa's Trinity Structural Towers wind turbine towers as a backdrop, President Barack Obama recently declared "When it comes to renewable energy, I don't think we should be followers, I think it's time for us to lead."

And the state of Iowa—along with Trinity and TPI Composites, two Newton manufacturers of wind energy components—are heeding the president's Earth Day 2009 call to action. Trailing only Texas in wind energy production, Iowa is now home to 300 companies and suppliers to the wind energy industry. This includes major international companies such as Siemens Energy; Clipper Windpower, Inc; Acciona Energy North America; NextEra Energy Resources and TPI Composities.

These turbine, blade and tower manufacturing operations have chosen to locate in Iowa for good reason—abundant wind farms and abundant wind supply. Trinity Structural Towers, which operates some of the largest production capacity facilities for the manufacture of tubular wind turbine towers, is just the latest company that is helping green Iowa.

"We design tower structures that support the largest current turbine designs and have fabricated towers for most turbine manufacturers," says James Perry, Trinity vice president and treasurer.

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#### Seeing new careers with visualization technology

In Iowa's East Marshall Community School District, an unmotivated high school freshman comes upon a donated virtual reality machine. Intrigued, he begins to study the system's thick instruction manual which drives a self-discovery process to figure it out.

Today that student— Tyler Richard—has a patent pending for a virtual reality application.

What's more, upon graduation he's going to Iowa State University to study computer engineering. Richard's transformation as a student resulted from what East Marshall High School Principal Rex Kozak calls discovery learning.

East Marshall received the equipment when Iowabased MechDyne Corp., one of the world's leading virtual reality system providers, encouraged a customer, the Mayo Clinic, to donate it.

Now, a public-private initiative hopes to replicate **Richard's transformation** statewide by getting Virtual Reality equipment donations for other Iowa school districts. Jeff Brum, MechDyne vice president of marketing, says virtual reality is used in industries as diverse as manufacturing, medicine, oil and gas exploration, and the military.

"Our 3-D technology is used for training, product development and discovery," he says. "Design conducted in virtual environments doesn't require time-consuming and costly development of physical models and can reduce overall design time and improve decisions."

Kozak says use of the virtual reality system by his students at East Marshall is increasing enrollment in physics, chemistry and trigonometry classes. This has caught the attention of industry leaders such as Rockwell Collins. They hope to replicate East Marshall's experience by bringing virtual reality machines to six additional Iowa high schools.

The Iowa Business Council, working with the

Iowa companies and ISU's Virtual Reality Application Center, was awarded \$240,000 from the Iowa Department of Economic Development's Career Awareness Fund to develop the Iowa Virtual Reality **Education Pathfinder** (I-VREP) project.

"It could be revolutionary technology for education," says Rockwell Collins' Jack Harris. "We hope it will drive students to learn about challenging STEM subjects-science, technology, engineering and mathematics."



Towering over the atrium at the Virtual Reality Applications Center, C6 is a three-dimensional, fully-immersive synthetic environment installed by MechDyne Corporation at Iowa State University. ISU staff and MechDyne are contributing their expertise to a unique project to put Virtual Reality systems in Iowa high schools to increase student interest in science and math courses.



## Google 'plugs in' lowa data center

"I think it's just the beginning," said Iowa Governor Chet Culver at the ceremonial "plugging in" of Google's new \$600 million data center in Council Bluffs. "This is going to send a really strong signal to other companies that Iowa is a great place to do business. It really puts our state not only on the national map, but on the international map when it comes to information technology." (In the photo above, Governor Culver is the forth person from the right, plugging in the network fiber).

Paul Froutan, director of Google hardware operations, said the new data center in Iowa will add to Google's efficiency and flexibility. "We never stop. This is just the beginning and we will continue to grow for a very long time to come. There will certainly be more and more jobs and different types of jobs," said Froutan (second from left in above photo).

About 200 people will staff the new facility when it is fully built. At an average salary of \$50,000, that's an annual payroll of \$10 million. Froutan said Council Bluffs is one of a handful of locations around the world with the infrastructure capacity to support a data center of this size.

Data center manager Chris Russell agreed, "There are lots of reasons that we came here, including a great local base of employees, great power availability, good cost of living, and the availability of network bandwidth."

Large buildings of the new data center house computers that run Google Internet services, such as the search engine, Gmail and Google maps.

The state of Iowa has continued to attract major data centers since the Google project was announced two years ago. Microsoft is planning a \$500 million data center for West Des Moines, and IBM is opening a 1,300-employee service center in Dubuque.



Chris Russell

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## MobileDemand continues rapid growth in lowa

apping a year of recognition and accomplishments, MobileDemand®, the Cedar Rapids, Iowa-based manufacturer of rugged Tablet PCs, has been named to the Inc. 500 list, a ranking of the fastest growing private companies in the United States.

MobileDemand placed 148th on the 2008 Inc. 500 list with a three-year growth rate of more than 1,500 percent. In the computers and electronics category, MobileDemand was ranked as the third fastest growing company in America. It was also recognized as the top growing firm in Iowa.

What's more, The Technology Association of Iowa named it 2008 Technology Company of the Year, recognizing MobileDemand for its rapid growth, innovation and leadership in the technology field.

"We are very pleased to be honored by Inc. and the Technology Association of Iowa," says Matt Miller, president of MobileDemand. "It's a testament to our business model. Our advanced technology, combined with customer-focused engineering and aggressive marketing, fuels our growth."

Rugged Computing In



Matt Miller, MobileDemand president and founder, with an xTablet Rugged Tablet PC. The lowa company has developed a wide range of options for rugged mobile computer solutions along with superior customer service. MobileDemand is achieving success because its unique product, the xTablet, rugged Tablet PC, fulfills a need in multiple vertical markets.

"Our PC empowers field service and mobile blue-collar workers with full screen computers and the industry's highest processor performance," says Miller. "With our engineering arm, we are able to develop a wide range of options and accessories to meet the needs of our clients."

Some of MobileDemand's clients include Anheuser-Busch, General Motors, Walt Disney World Parks & Resorts, Pioneer Hi-Bred International and 3M.

To assist the company's launch of its smaller version xTablet—which allows users to incorporate "off the shelf" software—MobileDemand was awarded a \$150,000 grant from the Iowa Department of Economic Development's Demonstration Fund.

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#### NextEra Energy Resources brings a new era to lowa

With its recent groundbreaking in the central Iowa community of Story City, NextEra Energy Resources, the largest wind and solar energy producer in North America, strengthens its ties to the state.

Generation Repair and Service (GRS) is building a \$20-million facility to overhaul and repair wind turbine electric generation equipment operated by subsidiaries of NextEra.

"We'll also use our Story City location to warehouse and store parts and supplies that we'll utilize in our renewable and other energyrelated operations throughout the Midwest," says Steve Stengel, GRS spokesman.

NextEra Energy is no stranger to Iowa, operating seven wind energy centers with a combined generating capacity of 780 megawatts. "That's enough renewable energy to power more than 190,000 average Iowa homes," says Stengel.

"Renewable energy is a key not only to long term issues, such as the environment and national security, but also for our immediate need to create jobs in Iowa," said Governor Chet Culver at the GRS groundbreaking ceremony. "NextEra Energy's expansion represents a positive step in moving Iowa's economic growth forward by a company that has been a leader in generating wind power across the nation. The jobs created here are going to be jobs of the future and they're coming to Iowa."

Construction on the GRS facility will begin immediately and be completed by the end of 2009.

The project received assistance from the Iowa Department of Economic Development in the form of \$115,000 from its Community Economic Betterment Account (CEBA), \$300,000 from the Physical Infrastructure Assistance Program (PIAP), and a series of tax benefits from the High Quality Job Creation (HQJC) program. In return, GRS has pledged to create 25 new jobs.

"We are committed to clean energy generation and expanding our industry-leading wind generation portfolio in North America," said NextEra Energy Resources President and CEO Mitch Davidson. "By having what amounts to our own inhouse maintenance facility for certain wind turbine components, we will be able to reduce our equipment down time, allowing us to generate even more emission-free energy for our customers. We appreciate all the support we've received from state and local authorities and look forward to expanding our presence in Iowa."

"We appreciate all the support we've received from state and local authorities and loca is authorities authorities authorities and loca is authorities auth

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#### Trinity Structural Towers Continued from Page 1

Trinity renovated 300,000 square feet in the former Maytag manufacturing facility (Newton, Iowa) in 2008. Today more than 100 employees fabricate some of the largest tubular wind towers in North America.

"We fabricate to turbine manufacturers' designs or work with our customers in the design and fabrication of towers which meet the specific criteria of both the turbine and project location," explains Perry.

Trinity's \$21-million expansion project was assisted by two Iowa Department of Economic Development awards. The company was awarded a series of tax credits and benefits from the High Quality Job Creation (HQJC) programs as well as a \$630,000 award from the Physical Infrastructure Assistance Program (PIAP).

In return, Trinity pledges to create 140 new jobs when operating at full capacity.

"These are exciting times in the wind industry and we are very pleased to expand our operations in Newton," says Perry. "The wind energy market is core to our company's growth strategy. Our new location in Iowa puts our company in the perfect position to serve a market with outstanding growth potential."

Trinity joins TPI Composites, one of the world's leading wind turbine blade suppliers, in locating in Newton. TPI built a 316,000-square-foot state-ofthe-art manufacturing facility that will create more than 500 green jobs.

The lowa Power Fund Board recently finalized a \$2.1-million grant for a research project to find better material and methods to make composite blades. Sandia Laboratory and Iowa State University will be performing the research.

## More lowa support for wind energy

New legislation signed by Iowa Governor Chet Culver will further assist expansion of Iowa's wind energy industry, which is second in the nation in the production of electricity.

House File 817 expands the research activities tax credits for companies developing and deploying of innovative renewable energy generation components manufactured or assembled in this state. Senate File 456 utilizes unused tax credits to promote wind energy production by cities, counties, hospitals, schools, colleges and universities.

"Wind energy, along with biofuels, has helped transform our state into the nation's leader in renewable energy," says Governor Culver. "With this legislation, we will go even further, encouraging new wind energy development in communities large and small while creating good-paying green-collar jobs for Iowans."

#### A national leader in clean energy

Iowa ranks second nationally in wind-generation output, with nearly 2,800 megawatts of capacity installed. Iowans fill 2,300 wind energy-related jobs in the state.

Iowa has 38 ethanol refineries in operation, with an annual capacity of 3 billion gallons. Iowa leads the nation in biofuels output, accounting for 26 percent of U.S. ethanol and 12 percent of biodiesel production capacity. At last count, the state had 2,058 ethanol jobs and 302 biodiesel jobs.



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Published by: Iowa Department of Economic Development 200 East Grand Avenue, Des Moines, Iowa 50309 515.725.3100 ■ 800.245.IOWA (4692) www.iowalifechanging.com

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### lowa location is right on



arget Corp. will soon be shipping fresh produce and other perishable goods to Midwestern Target grocery stores with the completion of its 400,000-square-foot distribution center in Cedar Falls, Iowa.

The \$86-million project will be adjacent to the company's massive 1.4-million-square-foot dry goods merchandise warehouse — completed in 2003 and also undergoing an expansion.

Helping Target offset the costs incurred in locating the Cedar Falls foods distribution center was an award of tax benefits from the High Quality Job Creation (HQJC) program, administered by the Iowa Department of Economic Development.

"The new perishable foods center joins our U.S. network of 37 other distribution centers. We will be ready to start shipping in July 2009," says Carson Landsgard, Target's Cedar Falls general manager, "Our drygoods distribution center experience in Iowa over the past six years has been very positive. That experience helps minimize the risk in locating our grocery distribution center here as well."

Landsgard says the decision to locate the new food distribution center in Cedar Falls was driven by several key elements: logistics, labor market and an unsurpassed quality of life.

"We looked at a wide variety of locations for the new distribution center," says Landsgard. "One of the attributes with Cedar Falls was the chance to create a campus atmosphere, allowing us to leverage our existing facility and creating staffing and logistic synergies.

"Logistically, Iowa is a great location for our vendors to reach us and for us to stock our Target stores throughout the Midwest," continues Landsgard.

With both expansion projects nearing completion, Target is in the midst of hiring 400 new people.



Lansgard calls the quality and quantity of Iowa's workforce "Outstanding! The depth of the labor pool in the Waterloo-Cedar Falls area is one of the main reasons we chose to expand here."

While Target has had a great experience with Cedar Falls, the community is just as happy to be painted red by the highly regarded retail company.

"As one of only two communities in the U.S. with two Target distribution centers, the impact of their investment in our community is major, and we're very happy to have them here," says Cedar Falls Mayor Jon Crews.

"The quality of the lowa workforce has been outstanding!"

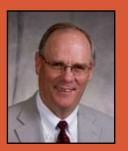
Carson Landsgard General Manager of Target's Cedar Falls Distribution Center





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Dr. Harold Prior President

lowa Wind Energy Association

#### guest opinion

#### Promoting the growth of lowa's wind industry

n the fall of 2007, a group of individuals representing a wide range of aspects of the wind industry gathered together and voted to establish the Iowa Wind Energy Association (IWEA). Now in its second year and operated out of Iowa Lakes Community College in Estherville, our association's increasing membership rolls parallel the phenomenal growth of the wind energy industry in our state.

IWEA has just concluded our second annual meeting which brought together a host of wind energy experts to share their knowledge and expertise. Attending were wind energy companies, wind developers, agricultural landowners, large- and small-scale wind farm producers, construction companies, energy companies, educators and students.

This broad range of interests pursuing common goals has made the Iowa Wind Energy Association one of the largest state wind organizations in the nation.

Working with our membership to reflect their concerns, IWEA elected a 15-member board of directors that is formed into working committees. These committees pursue ongoing initiatives in marketing, safety, legislative, membership and other areas.

■ IWEA is maintaining a lobbyist at the state capital to advance a legislative platform

that supports the growth of the wind industry in Iowa.

• Our association is supporting a 12-state comprehensive study of the industries that are currently or would like to become suppliers to the wind industry. When completed, this study should be an invaluable resource to manufacturing.

■ IWEA has positioned itself as an important resource in convening forums to address the community concerns that often arise with the growth of a high visibility industry.

Through these successes and other initiatives, we are advancing the opportunities for the wind industry in Iowa, helping to attract new industry and workers that will be of significant benefit to the state and national economy. It is a great pleasure for me to serve as president of IWEA and to clearly see the difference our organization is making.

America's wind energy industry is a very promising growth sector of the economy that is highly appreciated in these challenging economic times. Its continued progress may signal the change from the information age to the energy age.

For more information on the Iowa Wind Energy Association, call Angie De Jong at 712.362.7931 or visit the association's Web site at www.IowaWindEnergy.org.