



# WINDLETTER

THE MONTHLY NEWSLETTER OF  
THE AMERICAN WIND ENERGY ASSOCIATION

Volume 29, Issue 4  
April 2010

## Green Jobs in a Brown Field

*New tower manufacturer Ventower Industries breaks ground on production facility.*

By Carl Levesque

### Small Wind Column —p. 4

As capable as he was of creating bold visions, Gregory Adanin could not have imagined this moment.

The Ventower Industries founder stood atop a post-World War II-era industrial landfill, where the blue sky on that sunny Michigan spring day belied both the smokestacks towering on the horizon near Lake Erie and the grimy history of the ground underneath his feet.

The contrasts didn't stop there. Gathered with him in this setting, which juxtaposed rural wetlands and farmhouses in one direction against old-industry infrastructure in another, was a small crowd of between 150 and 200 people. Among them, standing atop the 20<sup>th</sup>-Century industrial landfill, was an impressive contingent of dignitaries that included Michigan Governor Jennifer Granholm (D), U.S. Representative John Dingell (D-Mich.), and a host of other officials.

"If I'm being honest, [when he first conceived of his company] I don't think I can say I imagined all that," said Adanin, recalling the event and the presence of the prominent officials.

He certainly will remember it, though, and not because of who was there. On that day, March 30, Adanin and the assembled gathering were celebrating the groundbreaking for Ventower Industries' new wind energy tower manufacturing plant, to be located in Monroe, Mich. Ventower is the brainchild of CEO Adanin, who worked to make the plant happen for close to two years, from the time he first started meeting with economic development officials, many of whom were present that day. The company aims to supply wind turbine manufacturers with towers.

Scott Viciano, Adanin's all-purpose vice president and right-hand man who put the groundbreaking celebration together, said the word "rewarding" repeatedly comes to mind when he looks back on the day of celebration. "The lineup [of officials], so to speak, that we had was more than just people wanting a few minutes of coverage," said Viciano. "It was a full-hearted collaboration of folks who see the need for wind energy

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## Ventower (cont.)

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and job creation in Michigan. It was just a really good, honest, sincere, positive event.”

Jobs and a multifaceted positive message. Welcome to the wind energy industry, Ventower. With that sunny day culminating years of hard work and signifying the next chapter for the nascent company, the short history of Ventower provides a glimpse into wind power’s ability to transform the know-how and infrastructure of old industry into high-tech opportunity.

### Conception and development

Back in 2004, Adanin was seemingly far from the world of renewable energy: he worked in business development (and purchasing, at one time) for Metalloyd, Ltd., the U.K.-based steel giant that has operations in some 12 countries. But around that time, he grew interested in wind power and its possibilities, so much so that he began to consider ways he could become a part of the industry. The obvious niche: wind turbine towers, which rely heavily on good, old-fashioned steel to hoist a turbine’s nacelle and blades 80 meters and higher into the air. Thus, the concept for Ventower Industries was born.

In the ensuing years, Adanin worked to put together the necessary backing and incentives for the capital-intensive business, ultimately relying on a combination of elbow grease and creativity to get what he needed. To be sure, he found the right kind of backing from an interesting mix of organizations—federal, state, and even environmental: the U.S. Small Business Administration, the Michigan Economic Development Corp., and Michigan’s Department of Natural Resources and Environment. In addition, earlier this year, Ventower was awarded an advanced-energy manufacturing tax credit under the American Recovery and Reinvestment Act (ARRA) of 2009.

But why the state Department of Natural Resources and Environment? Adanin decided to put his new plant on a brown-field site—i.e., the long-forgotten, post-World War II industrial landfill that resides in a state as well known today for its economic woes as it was years ago for its auto manufacturing might. And so Ventower is green both in the product it produces and in its reuse of a brown-field location.

### Jobs and prospects

The 115,000 square-foot plant, which is scheduled to begin producing wind turbine towers in March 2011, will employ 150 new workers when fully operational.

“Clean energy is one of the economic sectors we’ve targeted in our ongoing efforts to diversify Michigan’s economy,” Granholm said at the groundbreaking. “Ventower’s state-of-the-art facility will help us toward our goal of making Michigan a center for green manufacturing.”

Adanin believes his company has several factors going in its favor to make it successful. Reason Number 1: steel. His expertise, he says, will make Ventower extremely competitive at sourcing the raw material, which comprises over 50% of a tower. Reasons 2 and 3: Location, location. With its auto industry history, Michigan’s transportation infrastructure is second to none, economic development officials are quick to point out, and Ventower looks to capitalize on that infrastructure. Interstate highways, rail lines, and, of course, the Port of Monroe on Lake Erie will all be right on the factory’s doorstep. Reason 4: the area’s experienced work force, already well-versed in manufacturing.

In sum, “We think we can be very competitive,” says Adanin.

With the plant slated to open in less than a year, now is the time for Adanin to capitalize on his business develop-

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## Ventower (cont.)

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ment background. Contracts must be secured with wind turbine original equipment manufacturers (OEMs) for them to purchase the company's towers. Those efforts have already begun; Adanin says his company is in "very substantive discussions with a number of well-known OEMs."

But first the company must build the plant, a facility that will be Adanin's vision realized.

*Carl Levesque is communications editor at AWEA.*



### UPCOMING AWEA EVENTS

#### **WINDPOWER 2010 Conference & Exhibition**

Dallas, TX

May 23 - 26, 2010

For more information visit [www.awea.org/events](http://www.awea.org/events) .

## Small Wind Column

### Back to the Basics 8: Wind Site Assessments

By Mick Sagrillo

Last month's column ([http://www.awea.org/windletter/100325\\_AWEA\\_WL.pdf](http://www.awea.org/windletter/100325_AWEA_WL.pdf)) described the best tools that we have today for estimating the wind resource for a small wind turbine, and the need to have a trained wind site assessor evaluate your site and wind resource. This column will lay out the items that should be covered in a thorough wind site assessment for a home, business, farm, or even a school district.



#### Initial contact

When you contact a person who does wind site assessments, you need to determine his or her capabilities, and any ties they might have to small turbine manufacturers—however loose those ties may be. For example, many people who have been trained to do wind site assessments (but certainly not all) received their training by attending a workshop put on by a manufacturer. Such trainings vary considerably in quality, with some adequately covering the all-important topics of wind turbine towers and siting, while others focus far more on simply closing the sale. Training from or association with a manufacturer is not a fatal flaw, but it is good to know if there will be any potential bias.

When you're going through the process of screening prospective assessors, be sure to quiz your candidates, using the information on best practices for siting a wind system that have been covered in this series of columns. If the assessor represents a company that offers "one tower size for all sites and applications," look elsewhere, as all you are likely to come away with is an intense sales pitch.

The first piece of information that the assessor will require is your annual electricity usage. She will likely ask you about your major appliances and try to identify energy efficiency strategies that make sense in your situation. Keep in mind that it is always cheaper to use energy more efficiently with compact fluorescent lighting and high efficiency appliances than it is to install renewable energy equipment to offset electricity consumed by wasteful appliances. The rule of thumb that is used for small wind systems is that every dollar spent on efficiency saves three dollars in generating capacity.

Make sure that you settle on a price for the service, which should include a written report to be delivered to you within a reasonable time after the assessor visits your site.

#### The site visit

When the assessor visits, he will want to walk around your premises. He is simply getting the lay of the land, and looking for current and potential future obstacles that will affect the performance of the wind turbine by restricting wind flow. The assessor will also want to know your preferred location for the turbine and tower, as well as the location of the building where the controls and inverter for the system will be housed. Measurements including the height of the tallest obstacles on the property, usually trees, and their distance from the proposed tower site will be used to determine the minimum acceptable tower height for the location; those measurements will also help the assessor arrive at an estimated average annual wind speed for the site.

A good assessor will take pictures of the site in eight or more directions, for two reasons. The first is simply to refresh his or her memory when reviewing your site information. The second reason is to include these pictures in the wind site assessment report. It is not unusual for a wind site assessment report to be reviewed by a number of people besides the prospective wind turbine owners, including the permitting or zoning authority, the local utility, any fi-

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nancial institution considering a loan for the system, or the state public benefits program or U.S. Department of Agriculture (USDA) should a grant application be submitted. These entities will not be privy to what the site looks like, and any photographs will go a long way toward helping them understand what you are planning.

### “Landmines” and installation considerations

Finally, the assessor will need to assess potential “landmines” for the installation—that is, services and structures that may be problematic for any installation. For example, where are the septic tank and field? You certainly do not want a backhoe excavating for a tower anchor in your leach field. Nor do you want a crane driving over your septic tank.

Other critical questions about the site include:

What is the location of the well and any water lines?

Is there an underground gas or LP line in the area?

What about the existence of underground services such as utility or phone lines?

Are there any red flags with respect to your soil type? Do you have “critical” soils that consist essentially of gravel or muck, neither of which will support a standard tower foundation?

Does your property have a high water table, which might impact the foundation design?

How deep is the bedrock on the property? (This too may affect the foundation design.)

Infrastructure issues

What is the capacity of your electrical service? Is your circuit breaker box adequate?

What about the utility transformer on the pole at the road—is it adequately sized?

Are there any plans for future buildings on the property?

Regional concerns

Are there any nearby airports or air fields? Where are they located?

Does anyone engage in aerial application of pesticides on neighboring fields?

Zoning

- Are there any height restrictions in your township or county?

What setback restrictions from roads or property lines would apply to the tower?

Utility interconnection

- What are the local utility’s regulations and restrictions on interconnecting the system to the grid? Are there any turbine capacity limitations?

- Is there a requirement for a wind system disconnect switch? If so, is there a specified location for this disconnect?

- What are the insurance requirements of the utility?

Will your insurance company insure the system without charging a substantial premium?

Site logistics

- Where is the proposed wire run to terminate?

- Will bedrock interfere with the wire run?

- Is there a secure and environmentally conditioned location for the balance of system components (e.g., controls

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and inverter) that has an adequate circuit breaker box? Is there adequate space for all such components? Can the wire run be minimized by siting the turbine close to the controls and inverter without compromising the wind resource or creating more turbulence with ground clutter?

### Siting logistics

- Is there an elevated area on the property that is relatively close to the location of the balance of system components that can be utilized to optimize the wind resource?
- Where are the site obstacles and trees relative to the prevailing wind directions? It is important to site the tower upwind of such obstacles to maximize wind speed and minimize turbulence.
- What is the distance and height of the trees in the area (which are usually the tallest obstacles that must be overcome by the tower)?
- What is the planned future use for the location of the tower? Are there any activities or planned structures that will either interfere with the installation or with accessing the tower for future maintenance and repair work?
- Where are any overhead power lines which could pose a danger during installation or while workers and service personnel are on the tower?

### Installation logistics

- If the tower style chosen is guyed, is there adequate room for the guy cables?
- If a tilt-up tower will be installed, is there sufficient space to lower the tower to the ground, and possibly leave it in that position for periods of time?
- Can a concrete truck access the site to pour the foundation?
- Will a crane be able to access the location to set the tower and turbine in place?
- Will either of these heavy pieces of equipment need to drive over the septic tank or field, or other infrastructure that could be damaged by heavy weight?

### The final report

Once the assessor has collected all of the site information they need, they will create a report that includes:

- The minimum acceptable tower height for the site based on terrain and ground clutter. This should take into account the height that the surrounding trees will attain in the 20-30 year life of the wind system.
- The wind rose for the site that details the seasonal prevailing wind directions and any patterns. This is useful for siting the tower upwind of obstacles to minimize ground drag and turbulence.
- The conservatively estimated wind resource at the site at the minimum tower height specified, as well as an explanation about how the average annual wind speed for the site was arrived at.
- A list of several wind turbine models that will, ideally, offset the electrical consumption of the owners. The suggested turbines may include systems that are larger than required if growth in consumption is anticipated in the future of the customer, or smaller than currently required if there are opportunities for savings by incorporating efficiency. The proposed project also needs to meet the needs, goals, and budget of the customer. Some clients are interested in only installing a token wind system, more as a statement of values. Others might be limited by local utility restrictions as to the size of turbine they can install.

The estimated annual energy output of the suggested turbines, at this location, at the specified tower height and estimated wind speed. In the end, this is really the purpose of a wind site assessment—to estimate how much electricity

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this investment will generate that offsets utility-supplied energy. An explanation of how the annual energy outputs were arrived at will also be included.

In addition, some public benefits programs, as well as the USDA, require additional information for their grants—specifically, any historical, cultural, or environmental ramifications of the project.

Based on the above, as well as a review of the possible red flags and installation considerations discussed above, the assessor will make recommendations to the customer to optimize the wind resource at the site with a small wind system.

Other features of a wind site assessment that help the client understand their resource include:

- site pictures;
  - aerial photographs of the property showing all structures, infrastructure, and trees within a 500-foot radius of the tower location; and
- a topographic map of the area with a 1-3 mile radius that conveys a sense of the lay of the land

In addition, the site assessment may offer more than one location for the tower, with pros and cons for each locale. The best location may not be the one preferred by the prospective owners, but the final choice is ultimately theirs—unless, of course, they want something that is completely unreasonable or will result in a seriously underproductive wind system.

The site assessment may also include towers taller than the minimum dictated by the site obstacles, as well as the annual energy output on the taller towers. A taller tower is often justified as the least expensive way to generate a larger amount of electricity, compared to installing a system with a larger swept area or multiple wind systems to meet the electric needs of the client.

Finally, the assessment will need to specify how the customer should proceed. The customer's first tasks should be contacting the local utility for the interconnection requirements and application, and zoning authority for the building permit. Without permission from these two entities, you simply cannot install a wind system legally (unless it is off-grid in a location with no zoning).

### **Food for thought**

The product you receive from the wind site assessor will take a while to read and digest. Don't procrastinate—read it, and then read it again. By the time an assessor is done creating the wind site assessment report, he or she may have logged a score of hours. So, again, make sure you read it thoroughly. If you have any questions, which you invariably will, be sure to contact the assessor for answers in a timely manner. The fresher the visit is in everyone's head, the greater the value of the entire effort.

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*Editor's note: The opinions expressed in this column are the author's and may not reflect those of AWEA's staff or board.*



## Wind Energy News Recap

### Ritter Signs 30% Colorado Renewables Standard into Law

Calling the legislation “a game changer,” Governor Bill Ritter (D) signed into law landmark legislation that raises Colorado’s already aggressive renewable electricity standard (RES) to 30% by 2020. Ritter, who announced earlier this year that he will not seek reelection, has put renewables at the center of his platform during his tenure and in the process has lured hundreds of millions of dollars in investment to his state, most notably from turbine manufacturer Vestas, which is opening a cluster of turbine factories in Colorado (see story below). The state has also passed legislation to facilitate construction of transmission needed to link renewable resources to load centers.

Wind power advocates applauded the news. Craig Cox, executive director of AWEA regional partner Interwest Energy Alliance, praised Ritter and other proponents of the legislation, saying the new law “reinforces Colorado’s national leadership in implementing clean, renewable energy technologies, while providing important planning and regulatory certainty for the state’s electric utilities. Renewable energy technologies are growth industries of the 21st century. Colorado is well positioned to gain thousands of new jobs, and renewable energy industries will continue creating local economic development benefits, especially in rural areas that need new economic opportunities.”

### We Energies Turbine Order for Glacier Hills Will Bring Vestas Facilities Online

A just-announced 81-turbine order for utility We Energies’ Glacier Hills wind farm in Wisconsin will help bring a new Vestas manufacturing facilities online in Colorado, the turbine manufacturer said. The 1.8-MW turbines will be delivered in early 2011, with commissioning for the 145-MW project expected by the end of that year. The order includes a two-year service and maintenance agreement. Vestas spokesman Peter Kruse told the *Denver Business Journal* that “everything you can see from the outside will be made in Colorado.” A Colorado blade manufacturing facility went online in 2008, and a tower plant is set to come online later this year. Nacelle assembly also will be performed in the state. Colorado has successfully lured hundreds of millions of dollars of investment from Vestas and other renewable energy companies, thanks in large part to its renewable electricity standard, which the state just increased (see related story above).

### Governor Strickland and Senator Brown Outline Ohio Wind Plans

U.S. Senator Sherrod Brown (D-Ohio) and Governor Ted Strickland (D) outlined plans to advance offshore and onshore wind energy projects, with Brown unveiling legislation aimed at advancing the installation of offshore wind turbines in Lake Erie. Strickland, meanwhile, provided an update on the state’s efforts to advance onshore developments through the elimination of Ohio’s tangible personal property tax on generation equipment for wind and solar. Senator Brown’s legislation, the Program for Offshore Wind Energy Research and Development (POWERED) Act of 2010, would promote research on potential offshore wind projects, expand incentives for offshore wind development, and require the U.S. Department of Energy (DOE) to develop a comprehensive roadmap for the deployment of offshore wind. Brown is also the original cosponsor of S. 3062, which would provide the offshore wind industry with stability by extending production and investment tax credits for offshore wind until 2020. These provisions are vital because of the long lead times required to permit and construct wind projects offshore, compared to onshore.

Brown’s POWERED Act would establish the Offshore Wind Power Research and Development Program at the DOE. The program would support offshore wind power efforts by giving grants to states, institutions of higher education, and industry-academic consortia to do work in such critical areas as analysis and development of offshore wind power incentives and policies in state power planning, wind integration, potential wildlife and ecological impacts, and research on technologies that would improve the reliability and reduce the cost of offshore turbines.

The state is also reviewing existing Ohio laws and regulations to give wind developers the site control they need while still protecting Lake Erie. Additionally, the state of Ohio continues to work with developers and manufacturers to create responsible state incentive packages that would bring Ohio’s wind taxes in line with neighboring states, making

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## Wind Energy News Recap (cont.)

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sure the Ohio wind industry grows, in both the onshore and offshore markets. In his January State of the State Address, Governor Strickland stated that Ohio could do more to bring the wind industry into the state and that Ohio's Tangible Personal Property Taxes were at a level too high for wind farm development.

### **Siemens to Put Offshore Wind Turbine Plant in U.K.**

In the second major European offshore turbine manufacturing announcement in a week, Siemens Energy said it will build a new production plant for offshore wind turbines in the United Kingdom. Siemens noted that more than 1,000 wind turbines are slated to be installed in British waters in the next few years, and more than 32,000 MW are expected to be installed by 2020. Siemens, the current offshore turbine leader, has over 1,000 MW of its offshore turbines deployed in European waters and elsewhere. The new facility is expected to create more than 700 new jobs, according to Siemens U.K. CEO Andreas Goss. "The British government has established attractive terms and conditions for investors in renewables," said Goss. "This applies in particular to offshore wind power."

As Goss's statement suggests, the Siemens news underscores how the manufacturing segment of the wind industry goes where the market is. The previous week G.E. announced plans to invest over \$450 million to expand its offshore wind turbine manufacturing, engineering, and service facilities in four European countries. Part of that investment will go toward a manufacturing plant in the U.K. Europe, and in particular the U.K., are highly active in offshore wind power; in the U.S., meanwhile, an offshore project has yet to be built.

### **Mitsubishi to Start Construction on Arkansas Nacelle Plant by Year-End**

Wind turbine producer Mitsubishi Heavy Industries, Ltd., (MHI) is moving full-steam ahead on plans to build its previously announced manufacturing plant in Fort Smith, Ark., the company said. Mitsubishi Power Systems Americas, Inc. (MPSA), which will operate the facility, first announced plans for the plant last fall, stating construction would start on it by early 2011. A legal battle, however, over turbine-technology patents created uncertainty concerning immediate plans for the plant. Nevertheless, MHI said this month that construction will begin on the plant before the end of the year and that it will begin operation in the second half of 2011. The nacelle production facility, which could eventually employ up to 400 people, is to begin operations with about 300 employees, starting off with an annual production capacity of about 600 MW—that is, 250 of the company's 2.4-MW turbines. MHI, which has been in the U.S. wind power market since the 1980s, said it is now seeking to expand its share in the North American market, which it deems to be "in a recovery trend." The new plant will be the company's first nacelle production plant outside of Japan.

The nacelle, the large, often rectangular structure sitting atop the tower, includes the turbine's primary components that convert wind energy to electric power—the rotor axis, generator, multiplying gearbox, control system and electrical equipment.

### **8,000-MW Maine Wind Power Bill Passes**

The Maine legislature passed a governor-backed bill setting an 8,000-MW wind power goal by 2030. Legislative Document 1810, "An Act to Implement the Recommendations of the Governor's Ocean Energy Task Force," calls for 3,000 MW of the 8,000 MW to come from offshore resources. The bill directs state regulators to conduct competitive solicitations for offshore projects and negotiate a long-term contract. The legislation calls for the Maine Public Utilities Commission to issue requests for proposals this year for 25 MW of deepwater wind power using floating turbines, as well as 5 MW of tidal power. Developing projects in the waters off much of Maine's coast would require deepwater technology. Under the legislation, deepwater is defined as being at least 10 miles off the coast with depths of at least 300 feet.

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## Wind Energy News Recap (cont.)


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### **AES Wind Generation Expands U.K. Portfolio, Enters Polish Market**

Expanding its wind power development footprint in the European market, AES Wind Generation acquired U.K. developer Your Energy Ltd. (YEL), and also signed an agreement to acquire a 51% stake in a portfolio of projects owned by Polish developer 3E. Together the investments will add more than 700 MW to AES Wind Generation's European pipeline and will require \$400 million of AES equity over five years. Of that amount, \$120 million will be invested in order to bring 200 MW into construction by the end of 2011. The acquisition of YEL includes a development pipeline of more than 300 MW. Of that amount, AES Wind Generation plans to begin construction on 48 MW by the end of 2010. The agreement with 3E marks AES Wind Generation's entry into the Polish wind market. Under the agreement, the company would acquire a 51% stake in 422 MW of 3E's development pipeline. AES Wind Generation expects to begin construction on approximately 34 MW in 2010 and 120 MW in 2011.

The U.S.-based company noted that under the 2009 European Union Renewable Energy Directive, both the U.K. and Poland must meet 15% of their gross energy consumption through renewables by 2020, and wind installations are expected to play a significant role in meeting that requirement. The U.S., meanwhile, still awaits enactment of strong and stable renewables policy, with a national renewable electricity standard waiting in the wings.

### **Mariah Power Gets a New Name: Windspire Energy**

Small-wind turbine producer Mariah Power is changing its name to Windspire Energy, Inc. The company, which produces the Windspire vertical-axis wind turbine for small-scale applications, said the name simplifies its branding to match its lead product "while leveraging the innovation of the Windspire wind turbine." In conjunction with the name change, the company is launching WindspireEnergy.com, a new buyer-focused Web site with information on the many available applications of Windspire wind turbines. Meanwhile, the company closed on a round of financing, led by current investors Noventi Ventures, Greenhouse Capital Partners, and Big Sky Partners. 

## Project Recap

### Ohio siting board OK's three wind farms

The Ohio Power Siting Board (OPSB) gave approvals to three wind farms on March 22. The OPSB modified and approved the proposal from Everpower Wind Holdings subsidiary Buckeye Wind to construct a 135-MW wind farm in eastern Champaign County. The OPSB authorized construction of up to 54 turbines, while denying the siting of 16 turbines proposed near Champaign County's airports out of concerns over the turbines being a potential hazard to aviation.

The board also approved an agreement authorizing JW Great Lakes Wind, LLC, (JWGL) to construct up to 27 wind turbines in Hardin County. The wind farm will have a generation capacity of approximately 48 MW. JWGL, a unit of German renewable energy company juwi GmbH, anticipates beginning construction in 2010 in anticipation of commercial operation starting in mid-2011. The construction phase is expected to provide between 50 and 100 temporary construction jobs, and the facility is expected to have 3-5 full-time maintenance staff.

Finally, the OPSB approved an agreement authorizing Invenergy, LLC, affiliate Hardin Wind Energy, LLC, to construct up to 200 wind turbines in Hardin County. The facility will have a generation capacity of approximately 300 MW. Construction, expected to begin in mid-2010, will consist of two phases. Depending on the turbine model the developer chooses, the initial phase will consist of up to 157 turbines, and the second phase up to 47.

### Cape Wind Puts in Order for Siemens Turbines

Developer Cape Wind said it has entered into an agreement for Siemens to supply 130 of its 3.6-MW turbines for Cape Wind's proposed wind farm off the coast of Massachusetts, a project that could be America's first offshore wind farm. Siemens also said it would open a U.S. offshore wind office in Boston. The company is the top turbine seller in the offshore market, with 1,000 of its 3.6-MW offshore wind turbines sold and 150 installed and operating.

### Xcel Energy Takes Ownership of enXco Minnesota Project

Utility Xcel Energy closed two wind energy deals, inking a power purchase agreement (PPA) and acquiring ownership of a wind farm. Wind power developer enXco and Xcel Energy closed on the wind project purchase and sale agreement for the Nobles wind project, a 201-MW wind facility to be constructed in Nobles County in southwest Minnesota, the companies announced. The agreement transfers the ownership of the project, which is slated to be operational by the end of the year, to Northern States Power, an Xcel Energy operating company. The Minnesota Public Utilities Commission approved the Nobles wind project on May 28, 2009. The facility, consisting of 134 GE 1.5-MW turbines, is expected to produce enough electricity to power approximately 50,000 homes, according to the companies.

In addition, Xcel Energy subsidiary Public Service Company of Colorado (PSCo) entered into a PPA with Renewable Energy Systems Americas, Inc., (RES Americas) under which PSCo will buy 252.2 MW of capacity from the developer's Cedar Point Wind project for a 20-year term. Construction on the 252.2-MW wind farm, which is located primarily in Lincoln and Elbert Counties, is expected to begin in the middle part of this year and commercial operation is expected in 2011.

### Clipper Windpower Sells Maryland Wind Farm, Turbines to Constellation Energy

Developer and turbine manufacturer Clipper Windpower entered into a two-part agreement to sell its 70-MW Criterion project in Maryland to utility Constellation Energy and provide the 28 2.5-MW turbines for the project. The Criterion Project, slated for immediate construction, is expected to be online by the end of the year. While Constellation will take over ownership, Clipper will still have an involvement in the facility. Clipper will provide operation-and-maintenance services for the wind farm under a long-term agreement, and the company's Remote Maintenance and

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## Project Recap (cont.)

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Diagnostic Center—located at its Cedar Rapids, Iowa, manufacturing facility—will provide round-the-clock operation oversight. The Garrett County project's wind turbines will be built at the Cedar Rapids manufacturing facility.

### **First Wind Celebrates Expansion of Maine Project**

First Wind marked the completion of the 26-MW expansion of its Stetson Wind project in Danforth, Maine. The first phase of the project, which has a capacity of 57 MW, commenced operations in January 2009. In March 2009, First Wind received approval from the Maine Land Use Regulation Commission to build the 26-MW expansion, also known as Stetson 2. Construction on the expansion began in November, creating about 200 jobs related to the installation of the 17 additional GE 1.5-MW turbines. In addition, the Stetson 2 project has generated business for dozens of companies all across Maine—from engineering, environmental and development firms to grocery stores, hotels, and gas stations, the company noted. Further, First Wind hires in-state businesses to perform much of the ongoing work.



## News from AWEA

### Cathy Zoi Confirmed to Speak at WINDPOWER

We are please to announce that Cathy Zoi, Assistant Secretary for Energy Efficiency and Renewable Energy (EERE), will be speaking at the General Session, scheduled on Monday, May 24 from 8:30 AM - 10:00 AM, during the WINDPOWER 2010 Conference & Exhibition.

Ms. Zoi was confirmed by the United States Senate as Assistant Secretary for the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) on June 19, 2009. In that post she manages the U.S. Department of Energy's \$2.3 billion applied science, research, development, and deployment portfolio and oversees EERE's \$16.8 billion in funding under the American Recovery and Reinvestment Act.

[Click here](#) to see who else is speaking at our General Sessions.

### Official Wind Region Bus Tours – See the World's Largest Wind Energy Projects!

Thursday, May 27, 2010 – 8:00 AM to 8:00 PM

See 5,000 MW or more on these guided tours by motor coach.

[Register](#) before May 15 and pay just \$100 per person (\$125 after May 15). The tour fee includes water & sodas en route as well as a hosted Texas luncheon at Sweetwater. [Click here](#) to learn more information including which projects you'll be seeing.

Registrations will be accepted through May 25, 2010; however, the tours may sell out prior to this date.

Texas Wind Energy Clearinghouse is the organizer of the tours and reserves the right to cancel any bus that is not at least half full as of May 20, 2010, so [reserve your spot](#) now!

### Kick-Start Your Conference Learning Experience– Attend a Pre-Conference Seminar

*\*\* Registration for these events includes only the Sunday day-long pre-conference seminar specifically purchased. This pass does not include regular conference sessions or the exhibition on Monday, Tuesday, or Wednesday. Access to the exhibit hall on Sunday from 4:00 - 6:30 pm is included.*

#### **NEW Green Grid: Integrating Large Scale Wind**

Sunday, May 23, 8:30 AM - 3:15 PM

In collaboration with the Danish Wind Energy Association, this preconference seminar will:

- Provide insight on key strategic aspects of implementing a secure and smart transmission infrastructure
- Shed light on how to attain operational grid reform

Denmark currently obtains 20% of its electricity from wind power and has the goal to reach 50% by 2020. Some regions in the U.S. have also reached significant levels of wind integration. Learn about instrumental energy policies, lessons in wind integrations and new transmission from both the Danish and U.S. perspectives.

*(Continued on page 14)*

## News from AWEA

*(Continued from page 13)*

Who Should Attend:

- Utilities
- ISOs State regulatory groups
- Regional Partners
- Developers

[Register now](#) or [add this event](#) to your current registration.

### **Wind Energy 101: Introduction to Wind Energy**

Sunday, May 23, 8:00 AM - 3:30 PM

*Designed for those who have 0-2 years of experience in wind*

Learn the basics of the wind energy industry in this day-long introductory seminar. View the seminar [agenda](#).  
[Register now](#) or [add this event](#) to your current registration.

### **Wind Energy 201: What Makes the Development Process Successful**

Sunday, May 23, 8:00 AM - 3:30 PM

This one-day seminar takes attendees through a virtual project allowing them to see first hand the development of a project from start to finish.

Attendees will explore a wide range of topics including:

- Wind resource
- Financing
- Permits
- Transmission issues
- Impact on the surrounding environment
- Asset management
- Establishing strong relationships with communities, landowners, government agencies and utilities

View the seminar [agenda](#).

[Register now](#) or [add this event](#) to your current registration.

### **Wind Power Supply Chain**

Sunday, May 23, 9:00 AM - 4:15 PM

*Presented in conjunction with the Great Lakes Wind Network (GLWN) - [www.glwn.org](http://www.glwn.org)*

This is not your typical AWEA Supply Chain seminar – this workshop will go beyond previous events to examine the details of individual links in the supply chain.

Session topics will focus on four specific and critical elements of the wind energy supply chain:

- Towers
- Blades
- Drive Train / Gearboxes
- Generators / Electric Components

Industry leaders and attendees will explore the specific challenges and obstacles in their sectors and how overcoming these barriers is critical for companies involved in the wind energy supply chain. AWEA will be introducing pre- and post-session networking opportunities for attendees.

View the seminar [agenda](#).

[Register now](#) or [add this event](#) to your current registration.

*(Continued on page 15)*

## News from AWEA

*(Continued from page 14)*

### **Human Resources: Powering our Organizations Forward**

Sunday, May 23, 8:00 AM - 3:30 PM

Human resources professionals are asked to address various issues in an industry that is constantly evolving. This first time seminar will focus on fundamental day-to-day opportunities and challenges, including staff recruitment and training and safety 101 for HR professionals

View the seminar [agenda](#).

[Register now](#) or [add this event](#) to your current registration.

## **WINDPOWER 2010 Housing – Hotels Added**

Additional hotels have been added to the official conference hotel list for WINDPOWER 2010 to accommodate continued demand for quality hotels at a wide range of rates. [Click here](#) for a full list of the official conference hotels being used for WINDPOWER 2010. As a reminder, the official housing bureau for WINDPOWER 2010 is The Housing Connection. Book your hotel rooms online through our [website](#), or call The Housing Connection at (877) 505-0678 (toll-free US) or +1 (801) 505-4616.

**BEWARE OF SCAM TRAVEL BOOKING COMPANIES:** There are other companies misrepresenting themselves as the official housing company for the show, including:

IEA Event Planning (also known as Independent Entertainers Association, Travel Expo or XMC Hotels). These companies are NOT affiliated with AWEA or the WINDPOWER conference in any way and therefore you put yourself at financial risk if you provide them your credit card information. These companies often have hidden costs, charge your credit card in full at the time of reservation, and may not provide the hotel reservations promised. For more information on IEA Event Planning specific, [click here](#) for a Better Business Bureau report (where they received an F rating).

Booking through the official housing provider for WINDPOWER 2010, The Housing Connection ensures you will be working with a reputable company and will benefit from all services provided to conference attendees at the official hotels including shuttle transportation to the convention center. [Click here](#) to visit the housing website for WINDPOWER 2010.

## **Program Agenda Continues to be Updated – Keep Checking for the Latest Details on Program Sessions and Speakers**

As WINDPOWER 2010 gets closer, the Program Agenda grows more robust by the day. Keep checking back for more session details, including an ever growing list of impressive speakers. Check out the current [program agenda](#) and be sure to keep checking back for the latest.

[Register now](#) to attend WINDPOWER 2010 Conference & Exhibition.



## New Business Members

### Corporate 2

**Priority Wire & Cable Inc.**

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brian@prioritywire.com  
[www.prioritywire.com](http://www.prioritywire.com)

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*Volume 29, Issue 4  
April 2010*

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**is the national association of  
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dedicated to advancing the use of  
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**Our mission is to promote wind  
power growth through  
communication, education, and  
advocacy.**