

Plotting growth

Wind rebounds in Q2

US wind energy continued to rebound in the second quarter of 2011, with 2,151 megawatts (MW) of electrical generating capacity installed in the first half of 2011 versus 1,250 MW during the same time in 2010, up 72 percent.

However, analysts at the American Wind Energy Association (AWEA) cautioned that without stable policy such as an extension of the Production Tax Credit, set to expire in 2012, the industry's recovery will stall.

Project activity and orders for 2013 and beyond are scant because of the lack of a predictable business environment, causing layoffs and even bankruptcies in American manufacturing plants and the supply chain, said AWEA. These struggles for US wind manufacturers will only worsen if Congress were to allow the tax credit to expire.

Ironically, due to the Production Tax Credit and market stability over the past five years, domestic content in the US industry reached a record high of 60 percent through 2010, according to a recent Department of Energy report.

"Clearly Congress cannot take for granted

all the wind energy manufacturing and construction jobs that have been a bright spot through the recession," said Denise Bode, CEO of AWEA.

However, she added, "Wind tax credits enjoy broad bipartisan support, and since they're not spending programs, current projects are safe and prospects for extension of the Production Tax Credit beyond 2012 are good."

The fast-growing wind sector averaged 3.2 percent of the nation's electricity over the strong wind months between January and April 2011, according to the Energy Information Administration's Electric Power Monthly report. For now, wind energy remains ahead of schedule to generate 20 percent of America's electricity by 2030, the goal identified by the US Department of Energy (DOE) under the George W. Bush Administration.

"We're making more clean, homegrown energy, and prices are more affordable, than ever," Bode said. A report by nationally known energy consumer advocate Mark Cooper, released in May by the Vermont Law School, found that wind energy today

is such a good deal that it helps hold down overall prices for electricity long-term. Cooper asserted that an American utility would be irresponsible not to invest in such a fixed-price source of power.

An additional 7,354 MW of new capacity was under construction by July 1, more than at any time since the third quarter of 2008.

Since 2007, wind energy has installed 35 percent of America's new electrical generating capacity, more than twice coal and nuclear combined.

Meanwhile, the comparative stability in US tax policy has helped to steadily increase the level of content that's made in America in US-installed turbines, from 25 percent just a few years ago to over 50 percent in 2009 and reaching 60 percent domestic content according to a July 2011 DOE report.

"We're seeing a strong trend toward insourcing, just when so many American industries are outsourcing," Bode said. "The Production Tax Credit for renewable energy not only produces affordable clean power, it is increasing the American manufacturing base, and the jobs that go with it."

Farm order

Vestas wins 202 MW contract

It has been revealed that Vestas has received a 202 MW order from E.ON Climate & Renewables North America for 112 V100-1.8 MW turbines for a wind-energy project in the USA. The project's name and specific location will be disclosed at a later date.

The contract includes delivery and commissioning along with a five-year service and maintenance agreement. Delivery is scheduled for the first half of 2012 and commissioning is expected in mid-2012.

"We are excited to again work with one of the leading wind-power operators in the world to move this project forward," said Martha Wyrsh, President of Vestas-American Wind Technology, Inc. "E.ON chose a turbine that is specifically designed to capture the lower wind speeds of this area."

Once finished, the project will provide enough electricity to power more than 60,000 American homes in a year. It also will create construction and turbine-maintenance jobs.

The contract includes Vestas' Active Output Management (AOM) 4000 maintenance program.

The AOM 4000 program guarantees turbine availability and includes all planned and unplanned maintenance services. AOM 4000 also includes continuous remote monitoring and surveillance of the project via the VestasOnline SCADA system.

E.ON is a leading renewable energy company headquartered in Chicago with development offices in Austin and Denver. E.ON Climate & Renewables North America is a subsidiary of E.ON AG, one of the

world's largest energy companies, and the largest investor-owned utility in the world.

Vestas last worked with E.ON on the 180 MW Papalote Creek wind power plant in San Patricio County, Texas, which was finished in 2009 and consists of 109 V82-1.65 MW turbines.

This order marks Vestas' sixth North American deal announced in 2011, totaling 976 MW among three turbine types.

Canadian contract

Reaching into Ontario

REpower Systems SE has concluded a contract with WindWorks Power Corp. for the delivery of a total of 25 wind turbines for five wind energy projects in Ontario. Five MM92 CCV wind turbines (cold climate version) are destined for each of the wind farms Settlers Landing, Snowy Ridge, Grey Highlands, Cloudy Ridge and Clean Breeze, all located in the vicinity of Oshawa (Province of Ontario). The wind power farms will generate a total output of more than 50 megawatts.

With a nominal output of 2.05 MW each and a hub height of 100 meters, the wind turbines are scheduled to be delivered in the

spring of 2013 and put into operation in the summer of the same year.

Only in May, REpower announced plans to deliver 15 wind turbines for wind energy projects run by WindWorks in Ontario. Andreas Nauen, CEO of REpower Systems SE commented: "We are pleased that we have been able to conclude wind power contracts for a total of eight wind farms in Ontario.

The cold climate version of the REpower MM92, specifically equipped for use in locations with damp weather conditions and major temperature fluctuations, is very well received by the Canadian market." In

February 2010, REpower installed two pilot units of this type in Québec (Canada) and has since then sold a total of almost 250 wind turbines of the MM series in the growing Canadian market.

Helmut Herold, Managing Director of the Canadian REpower subsidiary REpower Systems Inc., stated: "These additional wind power projects with WindWorks show that the collaboration is functioning in an outstanding way. For Ontario, these projects not only serve to expand important renewable energy sources in the region, but also create numerous jobs and help support the local economy."

BC expansion

Finavera signs MOU for four wind farm projects

Finavera Wind Energy Inc. has reached an agreement in principle to terms on a MOU with the McLeod Lake Indian Band for the development of the company's four wind power projects in British Columbia.

The MOU marks the beginning of a partnership between McLeod Lake Indian Band and Finavera that will see benefits flow to both parties through the construction and operation of four wind turbines projects that will produce 300 megawatts of clean, renewable electricity. The MOU will be celebrated at an official signing ceremony in the McLeod Lake Indian Band community, the company declared.

McLeod Lake Indian Band Chief Derrick Orr said, "The McLeod Lake Indian Band is happy to support Finavera and the responsible energy they will be producing. We look forward to the success of this project and to a long and mutually beneficial relationship with Finavera."

Finavera Wind Energy CEO Jason Bak said, "We are extremely proud to enter into this partnership with the McLeod Lake Indian Band on the development of our wind projects in British Columbia. Chief Derrick Orr has a strong vision for his community and we are thankful for their support of Finavera and these projects. Together, we can provide opportunities and build a legacy for future generations."

Tech update

Huge leaps promised in turbine technology

Wind power got a huge vote of confidence when what is often described as the most influential newspaper in the English-speaking world published a story saying the wind energy industry has made huge improvements in the past 15 years.

In a story headlined "Wind Power Gains as Gear Improves," The New York Times claimed that experts acknowledge that even greater improvements in wind farm technology are planned for the future.

As an example, the article quoted Finn Strom Madsen of Vestas saying that one of the company's current turbine models can produce 300 times as much power as a turbine sold in 1996.

"To date, many manufacturers have focused on making the wind turbines bigger, so the towers can reach faster and steadier winds and the blades can cover a larger area," the story noted, adding the largest onshore turbine now in Europe is a 7.5-megawatt machine made by Enercon.

That wind turbine, the NYT story added, is 135 metres tall and its blades sweep an area 127 metres in diameter.

But the article noted that Madsen, the president of technology research and development for Vestas, said that offshore wind turbines - like the company's planned

7-MW offshore wind turbine with a rotor diameter of 164 metres — will keep growing more rapidly than onshore machines.

In addition to bigger wind turbines, the story said the wind power sector has benefited by increasing amounts of research and development work, especially in Europe.

"This is probably the most exciting time in the industry as far as companies launching new product platforms," the story quoted Dan Radomski, co-founder of Kinetik Partners, a company that advises people involved in the clean energy sector, as saying.

The article added Radomski said this growth is partly because of "an increasing number of manufacturers, which are looking for ways to differentiate themselves.

Also, many of the best wind sites have already been claimed, and that has forced developers to build in places that are not quite so windy - making innovation all the more crucial for cost-effectiveness." ■