

## CONSULATE GENERAL OF DENMARK, CHICAGO

### AWEA 4th Quarter and Year-End 2009 Update

#### U.S. WIND ENERGY INDUSTRY BREAKS ALL RECORDS, INSTALLS NEARLY 10,000MW IN 2009

On January 26, 2010, the Consulate General of Denmark, Chicago, attended AWEA's 4th Quarter and Year-End 2009 Webcast.

According to AWEA, the U.S. wind industry broke all previous records by installing nearly 10,000MW of new generating capacity in 2009. This places wind power next to natural gas as the leading source of new electricity generation for the US. Together, the two sources account for about 80% of the new capacity added in the country last year. But even with this record in installed megawatts, the industry still lags in manufacturing. Sales and orders from the US companies have been down compared to 2008, which is also being felt by the Danish subcontractors.

*"The U.S. wind energy industry shattered all installation records in 2009, chalking up the Recovery Act as a historic success in creating jobs, avoiding carbon, and protecting consumers,"* said AWEA CEO Denise Bode. *"But US wind turbine manufacturing – the canary in the mine -- is down compared to last year's levels, and needs long-term policy certainty and market pull in order to grow. We need to set hard targets, in the form of a national Renewable Electricity Standard, in order to provide the necessary stability for manufacturers to expand their U.S. operations and to seize the historic opportunity we have today to build up a thriving renewable energy industry."*

Early in 2009, before the American Recovery and Reinvestment Act, the industry anticipated that in 2009 wind power development might drop by as much as 50% from 2008 levels, with equivalent job losses. But with the Obama administration's focus on creating clean energy jobs and the fast implementation of the Recovery Act in mid-summer minimized the expected drop in development of the US wind industry. The Recovery Act spurred the growth of construction, operations and maintenance, and management jobs, helping the industry to save and create jobs in those sectors. There is no doubt that had the Recovery Act not been implemented, the overall US wind industry would have taken a harder fall and that would have had a severe effect on the number of orders that the Danish subcontractors would receive in 2009 as well as in 2010. Overall 2009 was not as bad a year for the wind industry and its subcontractors, as it could have been, had the Recovery Act not been passed.

Even though the Recovery Act has dampened the downfall of the US wind industry, it is still not as healthy as it could be. The continuing lack of long-term policy and market signal allowed investment in the manufacturing sector to drop compared to 2008 (with one-third fewer wind power manufacturing facilities online, announced and expanded in 2009) and this had a direct effect on the number of orders received by Danish subcontractors to the US wind industry companies. The result for the US wind industry was net job losses in the manufacturing sector, which were compounded by low orders and high inventory. Looking forward, the Recovery Act manufacturing incentives that were announced only at the onset of 2009 will also need to be supplemented with the hard targets of a national Renewable Electricity Standard. If no long term policies are enacted, the downfall could continue, which in turn would continue to have consequences for the Danish subcontractors to the US wind industry.

With 4,041MW completed in the fourth quarter of 2009, it was the strongest quarter of the year but still lower than the fourth quarter of 2008. Combined, 9,922MW of wind energy was installed last year. This is equivalent to expanding the wind plant fleet by 39% and it brings total wind power generating capacity in the US up to over 35,000MW. The five-year average annual growth rate for the industry is now 39%, up from 32% between 2003 and 2008. US wind projects today generate enough energy to power the equivalent of 9.7 million homes, protecting consumers from fuel price volatility and strengthening US energy security. In comparison, the Danish wind plant fleet produces enough power to supply the use of energy in 1.7 million homes.

The regionalization of the US wind industry can be seen in the list below: Texas consolidated its lead, and Washington pulled ahead of Minnesota in the ranking of the top five states by wind power installed (in MW):

Texas	9,410
Iowa	3,670
California	2,794
Washington	1,980
Minnesota	1,809

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## Comments from the AWEA Fall Symposium in November

In connection with the above discussion about the state of the US wind energy market and the lack of long term policies by the US federal government, some comments from the AWEA Fall Symposium, which the Danish Consulate, Chicago, attended in November, have been included:

The US Department of Energy's goal is 20% wind energy by 2030, and the present Administration is calling for 25% by 2025, both aiming at somewhere around 300,000 MW by 2030, which would require approximately 12,400 MW per year. Various sources are estimating 8,500 MW in 2010, 10-11,000 MW in 2011, 12-13,000 MW in 2012, and 14-14,500 MW in 2013.

In 2008, the import of components grew dramatically; but there has been, in 2009, a growing demand for domestic production and supply to a great extent due to the Recovery Act's objective of creating American jobs. In 2008, 55 new manufacturing facilities opened and they were a mix of US and foreign OEMs and component manufacturers. The percentage of US manufactured components is steadily growing with a realistic goal of 75-80% up from 50% in 2008 and approximately 60% in 2009.

The future for Danish subcontractors in the US wind industry, and the possibilities for reaching the above described goals, is much affected by what key policy makers decide to do in 2010. With the Obama administration's strong focus on renewable energy, there are signs of a turnaround for the wind industry. The production tax credit has been extended (end 2012), and the Recovery Act is offering the 30% Manufacturing Tax Credit, Cash Grant Provisions, and R&D funding. Appropriation of the money for approved projects is happening at a speed that has not been seen before within the federal government. But to reach the called for goals, more key policy issues are needed such as a strong National Renewable Electricity Standard on top of the existing Renewable Portfolio Standards adopted by 29 states, and energy legislation that deals with top transmission issues such as planning, paying for (cost allocation) and siting new power lines; plus a "single source" permitting procedure. The Consulate general of Denmark, Chicago, will follow the political developments closely and give updates in ensuing newsletters.

Read more comments from the AWEA Fall Symposium [here](#)

## Obama's State of the Union Address, AWEAs comment on the address and forecast on new renewable energy

US President Obama held his first State of the Union Address on January 27th, 2010. In this address he devoted considerable room to speak about his commitment to clean energy in the US in the future:

*"We can put Americans to work today building the infrastructure of tomorrow. From the first railroads to the Interstate Highway System, our nation has always been built to compete. There's no reason Europe or China should have the fastest trains, or the new factories that manufacture clean energy products. [...] I know that there are those who disagree with the overwhelming scientific evidence on climate change. But here's the thing, even if you doubt the evidence, providing incentives for energy-efficiency and clean energy are the right thing to do for our future, because the nation that leads the clean energy economy will be the nation that leads the global economy. And America must be that nation."* (Source: President Obama's State of the Union address 2010)

AWEA's CEO, Dennis Bode, has made the following comment about the president's speech:

*"The wind energy industry applauds the President's emphasis on job creation. Under the President's leadership, the Recovery Act saved 40,000 wind jobs. The industry now looks forward to working with the President to put in place the policies—including a national Renewable Electricity Standard—which will create thousands more jobs, including in manufacturing. A Renewable Electricity Standard with strong, aggressive near-term targets is the best way to provide the certainty needed for businesses to expand domestic wind manufacturing."* Source: [AWEA](#)

Even though the President has much focus on renewable energy, many still agree that a future large renewable energy bill is still not likely in 2010. Last summer, clean energy advocates were confident that the US Congress would pass a comprehensive energy and climate bill by the time the Copenhagen conference rolled around. Now, as energy issues slip further down the policy priority list in the wake of the questionable results of the COP 15 meeting, advocates are left wondering if the US will see any significant

piece of clean energy legislation in 2010. With health care, the economic crisis and the upcoming US mid-term elections dominating the political agenda in Washington, most onlookers now believe that an energy bill will be broken up into smaller pieces in order to make progress on key issues this year. The problem arising from this is that very specific issues, instead of the clean energy segment at large, will be addressed by each piece of legislation passed and hence the clear long-term coherent policy — such as a clear national target for renewable energy in the future — and market signals that many companies in the wind industry hoped for, are not likely to show in 2010.

The climate bill, which the wind industry hoped would have been passed in 2009, never passed through the senate, where lawmakers have paid much more attention to the health care debates. Even though a number of politicians, including Democratic Senator John Kerry, have introduced their own pieces of legislation, it is unlikely that the Senate will vote on it until March of this year. But the House lawmakers are now urging Senators to act soon, as the bills will expire at the end of this year when the Congressional session ends. The fact that 2010 is a Congressional election year, could change the make-up of the House and Senate, when the new session begins. That could result in a situation in which Democrats — who have been more supportive of climate and clean energy legislation, than have Republicans — will have less power to pass a strong bill next year.

Even if the passage of a comprehensive climate bill is not very likely in 2010, analysts are still positive about the prospects for renewables. The Obama administration has given more support for clean energy in the last year than had been given in the last decade. Among the most positive new policies is last year's Recovery Act, increased government spending on R&D and billions of private dollars that have poured into the industry as tell-tale signs of how strong the industry is today — even if Congress doesn't pass a bill that the wind industry is hoping for.

Source: [Renewable Energy World](#)

## Webinar on "Wind Energy and the Power System"

The Consulate General of Denmark, Chicago, attended AWEAs Webinar "Wind Energy and the Power System" on January 28th 2010. The webinar featured Dr. Michael Milligan from National Renewable Energy Laboratory (NREL). Dr. Milligan is part of the Systems Integration Team at the National Wind Technology Center, NREL and was a contributing author to two of the largest, just released, US studies to date on wind integration:

- Eastern Wind Integration and Transmission Study (available for download on [NREL](#))
- Western Wind and Solar Integration Study (available for download on [NREL](#))

The AWEA webinar had Dr. Milligan answer questions related to issues such as "how do grid operators deal with the changing output of wind generation?", "does wind need energy storage?", "is new transmission needed for wind power?", etc. His presentation on these and other related questions have been uploaded at [AWEA](#) where you may find issues that are of interest to your operation.

## US Wind Industry News

**January 27th — Stimulus package didn't add to wind-energy jobs:** Federal stimulus money rescued the US wind-power industry from what could have been a disastrous 2009, but it still lost sought-after manufacturing jobs, a trade group reported. Read more on [iStockAnalysis](#)

**January 22nd — Korean Samsung C&T Corporation invests \$7bn in Ontario wind and solar projects:** The government of Ontario, Canada, has signed an agreement pertaining to a \$7bn investment led by a Samsung C&T Corporation and the Korea Electric Power Corporation to generate 2,500MW of wind and solar power. Read more on [New Energy World Network](#)

**January 20th — National Renewable Energy Laboratory (NREL) Study Shows 20 Percent Wind is Possible by 2024:** NREL has released the Eastern Wind Integration and Transmission Study (EWITS). This two-and-a-half year technical study of future high-penetration wind scenarios was designed to analyze the economic, operational, and technical implications of shifting 20 percent or more of the Eastern Interconnection's electrical load to wind energy by the year 2024. The analysis shows that Transmission Upgrades, Offshore Wind, and Operational Changes is needed to Incorporate 20 to 30 Percent Wind. Read more, and download the study on [NREL](#)

**January 19th — REpower to supply 20 wind turbines for its first project in Minnesota:** REpower Systems AG has received a contract from National Wind LLC, America's leading large-scale community wind project developer, to supply 20 of its MM92 type wind turbines with a rated power of 2.05 MW. The turbines will be used in the first phase of the Lake Country Wind Energy project in central Minnesota. All phases of the project will total 340 MW. Read more on [REpower](#)

**January 14th — Canadian Government revenues from wind farms more that offset federal financial incentive, GE study estimates:** GE Energy Financial Services has unveiled a study estimating that renewing a Canadian federal financial incentive that has now allocated virtually all of its funding for wind energy projects would more than pay for itself through tax revenues from the projects' income, vendors' profits and individual workers' wages. The study estimated that injecting an additional \$1.5 billion CDN into Canada's ecoENERGY for Renewable Power program could spawn 5.2 gigawatts of new wind projects and carry a net present value benefit to Canada's governments of \$287 million CDN. Read the story on [CanWEA](#)

**January 11th — REpower appoints Suzlon as sales agent for US and Australia markets:** REpower Systems AG and Suzlon Energy Limited have entered into an agreement wherein local Suzlon subsidiaries in the US and Australian/New Zealand markets will support REpower as sales agents. Read more on [REpower](#)

**January 8th — GE Loses Decision in Mitsubishi Fight Over Turbines:** General Electric Co., the biggest maker of wind turbines in the U.S., lost its bid to keep rival Mitsubishi Heavy Industries Ltd. from expanding in GE's home market. Mitsubishi Heavy Industries Ltd. did not violate General Electric Co. patents on wind turbines, which opens the door for Mitsubishi to compete with GE on wind farm projects. Read more on [Bloomberg](#)

**January 8th — Recovery Act Announcement: President Obama Awards \$2.3 Billion for New Clean-Tech Manufacturing Jobs:** President Obama announced the award of \$2.3 billion in Recovery Act Advanced Energy Manufacturing Tax Credits for clean energy manufacturing projects across the United States. One hundred eighty three projects in 43 states were selected. Among these were several projects concerning wind. Read more on [EERE](#)

**December 16th — Nordex receives order for first N100/2500 project in the US:** Nordex USA, Inc. has announced an order for eight Special cold climate version of its N100 wind turbines to be installed at a 20-megawatt wind farm in Glenmore, Wisconsin outside of Green Bay. Read more on [Nordex](#)

**December 16th — Update on US Offshore Wind Projects:** In December, The American Wind Energy Association held its Offshore Wind Workshop in Boston. It took a look at the progress that has been made for U.S. offshore wind and what hurdles that are left to overcome before the first turbine hits the water. Read more on [Renewable Energy World](#)

**For more news on the Wind Industry and for information on The Consulate General of Denmark, Chicago, visit our website:** [Consulate General of Denmark, Chicago](#)

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