reNEWS
LIVE @ WINDENERGY HAMBURG
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MHI Vestas beats rivals to turbine 10MW tape

MHI Vestas has become the first manufacturer to make a double-digit-capacity offshore wind turbine commercially available after unveiling its V164-10MW unit.

The joint venture has immediately started a sales push and will now embark on prototype testing, likely to begin next year, head of product development Henrik Bæk Jorgensen told reNEWS on the sidelines of the WindEnergy Hamburg 2018 expo.

Plans are already in place to deploy a pair of 10MW units each at two unnamed "customer test sites", Jorgensen said. A further machine will be installed at an onshore test site, he added.

The beefed-up hardware features a new "stronger gearbox", which will be delivered by a new, unnamed supplier. That company will also help MHI Vestas meet future order volumes.

Type certification is expected in 2020 and the turbine will be available for commercial installations starting in 2021.

Minor mechanical and electrical upgrades and a small design change to enhance cooling of the converter allowed the platform to reach the milestone.

The "evolution rather than revolution" from the previous company best of 9.5MW will not "put our track record at risk", added Jorgensen.

The V164-10MW can run for 25 years at a site with wind speeds of 10 metres per second and is suitable for global markets, he said.

Jorgensen indicated the platform can go even higher in terms of capacity but declined to specify the potential range.

NORDEX REDUX: German manufacturer Nordex has secured a plum contract with Vattenfall to supply 32 N117/3600 turbines *(pictured)* for the 115MW second phase of the Wieringermeer wind farm in the Netherlands.

The deal covers delivery and installation, as well as a service agreement for "at least two years".

Vattenfall subsidiary Nuon is implementing the project. Constuction at the Noord-Holland site is expected to start later this year with commissioning due by end-2019.

Nuon ordered 50 N117s in late 2017 for the 180MW first phase. Construction preparations are underway.

Nordex chief sales officer Patxi Landa Esparza said: "The new contract... highlights the mutual confidence that has grown between the Vattenfall and Nordex teams over the last few months."

The full 295MW wind farm is expected to generate a total of around 1.3 terawatt hours of green electricity annually. Photo: Nordex

'Golden years' for wind power growth in Europe

Expansion of wind power will be a "golden opportunity" for Europe in the coming decade, according to International Energy Agency executive director Fatih Birol. p2

Put wind at heart of war on carbon

The European wind industry is calling on policymakers across the continent to step up plans to decarbonise energy by placing wind at the heart of electrification to 2050. p3

THE INTERVIEW reNEWS

Today, Nordex chief sales officer Patxi Landa Esparza. p4

Get ready to ride the data tsunami

Ward Thomas, chief executive of US software outfit Sentient Science, helps WindEurope conference to explore theme of digital wind and new technologies on day two. p5

TRENDING ON reNEWS.BIZ LIVE@ WEH 2018

Dutch deliver blade bond boost

Pontis Engineering has developed a new technology to weld epoxy rotor blades for wind turbines using thermoplastic resin. The pre-fab units include a sharp trailing edge that gives a more compact connection, the Dutch company said.

ExxonMobil oils wind wheels

ExxonMobil has released guidance for turbine operators to reduce bearing failure and released a new lubricant specially made for the wind sector. The guidelines include enhancing safety by extending service intervals and finding the right protection for extreme conditions.

Nordex giant aces TUV SUD tests

Nordex has received certification for its N149/4.0-4.5 turbine platform from TUV SUD in line with international IEC and German DIBt standards. The N149 complies with design for IEC and type test certificates for DIBt, Nordex said.

EWT enters Germany

EWT of the Netherlands has entered the German market with installation of a DW61-750kW turbine at a poultry farm near Schoppingen. Output is mainly for on-site consumption by customer Pohlkemper GbR Hähnchenmast, which has high cooling and heating requirements. Surplus power will be fed into the grid.

Join the Global Wind Summit

WindEnergy Hamburg
The global on & offshore expo

Wind EUROPE
The global on & offshore conference

Day 2 expo and conference highlights

Don't cry for Argentina
The South American nation is in the midst of a renewables boom on the back of commitments to meet 20% of its energy mix from green sources by 2025. Check out this seminar to get the inside track on an upcoming tender round. Prior registration required.
Conference room Osaka, 09.30-12.20

First dates Hamburg
Meet start-ups and established companies to talk new products and business models at two speed dating sessions. Pre-registration required.
B7, Stand 490 11.00-12.00 & 14.00-15.00

Is bigger better?
This WindEurope conference session will debate where offshore turbines are heading in the next decade. Hear from executives from Senvion, LM Wind Power and others on the steps needed to produce next-generation hardware.
Room: Hamburg, 13.15-14.30

Squeezing the pips
Experts discuss how to get the most from the wind resources at projects once they are built at this WindEurope conference session. Topics include wake effects, yaw strategies and lidar operations.
Room: Bilbao, 15.00-16.15

'Golden years' for wind power growth in Europe

Expansion of wind power will be a "golden opportunity" for Europe, according to International Energy Agency executive director Fatih Birol.

The sector could be the leading source of generation should ongoing cost reductions meet with the right government policies, he told a WindEnergy Hamburg 2018 press conference on day one.

"Right after 2030 wind will be the main source of electricity generation in Europe," he predicted.

Elsewhere, China and India will be major growth markets. According to IEA figures, China will add generation capacity equivalent to current US levels by 2040 while India "will add another Europe" in the same period.

Birol singled out offshore wind and said Europe "can profit from a first-mover advantage".

The IEA expects some 200GW of offshore wind to be installed in European waters by 2040, delegates were told.

The rapid expansion in Europe can also spark development in Asia as well as North America, Birol said. Offshore wind will also "open an excellent door" to green hydrogen production.

CERTAINTY SWEET SPOT: Senior German industry figures at WindEurope 2018 called for policy certainty from Berlin to reverse a market slowdown.

Enercon managing director Hans-Dieter Kettwig *(pictured left)* told delegates on the morning of day one that policymakers must "learn from (recent) mistakes" when "not completely clear political guidelines" caused job losses and other negative impacts.

Eon chief executive Anja-Isabel Dotzenrath *(second left)* added that certainty is also required to unleash the "enormous" repowering potential across Germany. Photo: reNEWS

Put wind at heart of war on carbon

The European wind industry is calling on policymakers across the continent to step up plans to decarbonise energy by placing wind at the heart of electrification to 2050.

A new WindEurope report published on day one of WindEnergy Hamburg 2018 maps a scenario that will more than treble electricity's share of the energy mix to 62% in the next 30 years.

The scenario, which is aligned with the EU's commitments under the Paris climate deal, outlines how the vast majority of new generation, around 20GW a year, could come from onshore and offshore wind.

The suggested delivery plan could see the sector meet 66% of Europe's final energy demands and deliver 90% emissions reductions.

Greater deployment of wind energy could also mean double-digit reductions in investment costs.

Onshore wind investment costs would average €1.1m per megawatt by 2050, a fall of 30% on today's rates, while offshore wind costs would decrease by 23% to around €2.2m/MW, the report said.

Significant upgrades to power grids will be needed as well as new infrastructure and use of technologies.

However, the cost is likely to be only marginally more than current spending plans envisaged under long-term energy programmes already committed to by national governments.

The electrification strategy is underpinned by a significant hike in the use of heat pumps domestically and commercially as well as an increase in deployment of electric transport.

TURBINE SURGEONS: Deutsche Windtechnik crews help maintain ageing fleets Photo: Deutsche Windtechnik

Independent streak works for Deutsche Windtechnik

Deutsche Windtechnik is ramping up third-party services such as major turbine component exchanges in the European wind market.

Independent providers are carving out an increasing share of repair and replacement jobs as fleets age, said the Bremen outfit, with developers more readily exploring alternatives to the original turbine manufacturer.

"This is a cost-effective, good service," said UK managing director Billy Stevenson, who added capabilities extend to generators, main bearings, drive trains, blade bearings and blades.

Windtechnik provides staff and components for large-scale jobs as well as handling management and safety.

Contracts to date include work onshore and offshore, most recently for the latter at London Array where leading edge issues are being repaired.

Attendees on hunt for expertise and worldwide business deals

Delegations and representatives hailing from international markets have descended on WindEnergy Hamburg 2018 to leverage the expertise of industry heavyweights and seek out news business.

Twenty-three nations and regions have taken pavilions and various informal groupings will be working the floor during the four-day event.

Delegates from a 15-strong list of US companies are aiming to strike partnership deals with European allies for offshore wind projects stateside. "Until 12 months ago it was unclear whether the US industry would mature or not. Now domestic companies have enough certainty to make the investments needed to enter the sector," said Liz Burdock, executive director of US supply chain group Business Network for Offshore Wind.

"Outreach to European companies is an important first step in breaking into the market," she told reNEWS ahead of WindEnergy Hamburg 2018. Among others to organise for the event are Denmark, Belgium and China.

THE INTERVIEW reNEWS

Ahead of WindEnergy Hamburg 2018, reNEWS spoke to senior industry figures on vital issues shaping the sector. Second in the chair is Nordex chief sales officer Patxi Landa Esparza *(left)*

Q Ahead of Hamburg 2018, what will be the main subjects that you want to see debated during the week?

A I expect discussions on the prospects of wind power in Europe and the world and on policy shifts needed to support a climate-friendly and sustainable energy transition.

Beyond that, I would like to see reflected what the industry is already contributing towards global needs. For instance, our AW3000 and N149 platforms prove that onshore wind is the most economic power source in a lot of regions in the world.

Q How do you see the prospects for the onshore wind industry in both the short and long term?

A The expected increase in the global demand for electricity, as a result of the electrification of significant parts of the economy, will provide good prospects for wind, as wind already is the most efficient way to produce electricity in many regions of the world.

However, currently, we have experienced some short-term disruptions in established markets, in particular in some European countries. In the mid to long term and beyond the general lines, I simply expect the levelised cost of energy to define the prospects. We are very well positioned in this respect.

Q What are the major challenges facing the sector and how can these be overcome?

A To be appropriately rewarded as an industry for the value we generate not only for our nearest stakeholders but also for the good we do for society.

Q What measures can policymakers and governments introduce to support onshore wind over the coming years?

A Stay firm with ambitious renewable and climate policies and support a positive public perception of the energy transition and of wind power.

Q Has the sector convinced policymakers and governments and persuaded public opinion that it can be a big part of the future energy mix?

A The sector is supporting the energy transition and the industry provides high-quality jobs. These and other facts are well received by politicians and public opinion and, yes, there is great support.

Nevertheless, we are experiencing some opposition also in politics which, to some extent, might be the result of the disruptions in the power sector.

However, it is difficult to understand that some politicians in Europe, for example in Germany, oppose wind and thereby risk investments society has undertaken, through renewable support policies, for the energy transition.

These investments have successfully established the wind industry and these investments are now returning low-cost, clean domestic energy and high-quality jobs.

Q What is your company currently doing to lower the cost of energy?

A We live cost of energy programmes within our company and have been consistently doing so for the past five years. It has become an essential part of the company culture.

Photo: Nordex

Get ready to ride the data tsunami

WindEurope conference to explore theme of digital wind and new technologies on day two, writes **Elaine Maslin**

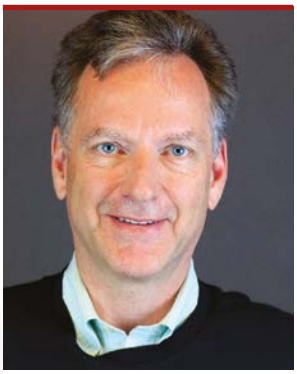
Senior executives are struggling to get to grips with the potential of digitalisation to transform the wind industry, the WindEurope conference 2018 will hear.

Ward Thomas, chief executive of US software outfit Sentient Science (*right*), said much remains to be done despite significant investment in big data and machine learning.

"Chief executives, chief financial officers and chief technology officers continue to struggle with the question: how do we make sense of the data and leverage it to create new revenue streams?" he said.

Digital wind and new technologies is the theme for day two of the conference. Sessions will discuss how R&D advances could break new ground in the wind industry

Thomas, who will address a session, said digitalisation is about business strategies not IT solutions, as some believe. "When you look across the horizon to asset management, supply chain management,



risk mitigation, business origination and business strategy, we calculate savings of up to 13% of revenues can be achieved through long-term forecasting and planning opportunities," he said.

"The development of digital clones plus leveraging materials science and physics allow operators and suppliers to simulate the impact that operational and loading conditions have on the life of the machines without incurring any real hardware costs."

Digitalisation could speed up more efficient designs of wind assets and make existing assets more productive. "Sharing data between manufacturers, suppliers and operators opens a large opportunity for life extension, more reliable wind turbines and economies of scale in capacity expansion, aftermarket parts and servicing opportunities," he said.

Sentient Science estimates computational testing evaluates 99% more data points in the design phase than a physical test and offers the ability to evaluate multiple designs and vendor options before a prototype is built.

WindEurope chief executive Giles Dickson, who is chairing the session, said digitalisation could transform the industry.

"Digital platforms can harness the power of fast, cheap data processing to cut costs, create value and launch new business models," he said.

"The International Energy Agency estimates the sector could save $80bn per year by fully embracing digital solutions." Digitalisation will become a cost-reduction enabler by optimising assets as well as being used to smooth power demand through storage and demand side management, he added.

Photo: Sentient Science

■ **How will the wind industry fully leverage the digital revolution?**
Brussels room, day two, 09.15

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editorial@reNEWS.biz
reNEWS.biz

renews.biz