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3 April 2019

Brexit just noise for bullish UK offshore

Uncertainty about how and when the UK will leave the European Union is having negligible impact on interest from offshore wind developers in the coming Contracts for Difference auction, WindEurope 2019 has heard. **p2**



Coal cost parity 'huge milestone' for wind

Wind power is now as cheap as coal-fired generation and has the potential to become cheaper still, turbine blade manufacturer TPI Composites chief executive Steve Lockard told delegates. **p3**

THE INTERVIEW reNEWS

Today, Julio Castro, Iberdrola head of renewables in Spain. **p4**

Onshore turbine market pressure cooker

Manufacturers and component suppliers must keep up their investment in next-generation hardware, says Wood Mackenzie Power and Renewables global wind technology analyst Shashi Barla. **p5**

Renewable targets key for investment

Siemens Gamesa chief executive Markus Tacke has challenged national governments to set clearer renewable energy targets.

The wind industry will struggle to justify investments without being offered better guidance from individual countries, he told delegates at the opening session WindEurope 2019.

Tacke said the European Union's goal of generating 32% of the bloc's electricity from green sources by 2030 is a respectable starting point but added "many countries" have uncertain long-term goals.

"If you don't have long-term perspective it creates difficulty for investment and it creates difficulty also from an employment perspective," he said.

"What we're really looking for as an industry are national energy and climate plans. There is certainly still some work to be done."

Draft national energy plans are currently insufficient to deliver the EU's target, according to analysis released by WindEurope on day 1 in Bilbao. The association



ROYAL ASSENT: King Felipe VI of Spain, pictured (*second left*) meeting senior executives in Bilbao including Markus Tacke (*fourth right*), touted the country's potential to be the biggest renewables market in Europe as he officially inaugurated the conference and exhibition. "Spain may well have the greatest renewable energy potential... in the

European Union," he said. "It has a geography of 50 million hectares including vast areas that are sparsely populated. It has both Mediterranean and Atlantic winds, high levels of sunshine (and) large forests." Members of the wind industry represent "part of the best response" in the fight against global warming, the king added.

Photo: Siemens Gamesa

rated every member state's proposed policy measures either insufficient or poor.

The private sector stands ready to help contribute to the hundreds of billions of euros per year of investment in renewable energy sources required to meet the Paris Accord emissions reduction goals, Tacke added.

"The answer to me is always

very simple; there is enough money," he said. "What you really look for is the right project, the right project that gives investors confidence that the money is well spent."

He added: "We see, for instance, pension funds are quite interested in investing in wind because there is no hedging with the fuel, there is no uncertainty."

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Service smiles on Deutsche Windtechnik in Spain

The Spanish arm of Deutsche Windtechnik has added 213 turbines to its service portfolio covering a range of models. Maintenance contracts have been agreed for wind farms totalling 274MW located in different regions comprising 130 Siemens Gamesa G80 and G52 machines, 40 NEG Micon NM52 and 43 Vestas V90 units.

Portugal eyes 3GW wind boost

Portugal expects to increase its wind generation capacity to 8GW or 9GW by 2030, according to Environment Minister Joao Pedro Matos Fernandes. Hitting the goal will mean adding about 3GW of capacity, he told WindEurope 2019 delegates.

German roots for GE's Cypress

GE Renewable Energy has secured a first order for its new Cypress turbine platform from German developer Prowind. The US manufacturer, which revealed the contract at WindEurope 2019, will deliver three 4.8MW units to the Elfershausen project in Bavaria, which is due online by the year-end.

Evacuator offers safe descent

UK outfit Survitec is launching a new emergency descent system called Evacuator at WindEurope 2019. The system is designed to evacuate people from heights of up to 300 metres and is fire-proofed to 1750 degrees Celsius for 30 minutes.

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Day 2 highlights

Taking wind to the next level

Grid operators and suppliers discuss the implications of integrating an ever higher proportion of renewables on European electricity systems.

Auditorium 1, 09.00-10.00

Winds of change

A conference session dedicated to development opportunities outside of Europe including Argentina, Vietnam, South Africa and the wider sub-Saharan Africa.

Auditorium 1, 10.45-12.00

Spanish taster session

Drop by Spanish wind energy association AEE's stand for some wine and Iberian ham while chatting about the future of the country's wind industry.

Hall 1-E20, 12.00

Football feast

Wind farm engineer Vortex hosts an Iberian ham tasting session dished out by a professional slicer with an offer of a table football match.

Vortex stand 1-E44, 16.00

Night at the museum

The Siemens Gamesa-sponsored gala dinner at the Guggenheim consists of private tours of the museum's art collections, a gastronomic experience and networking.

Guggenheim Museum, 20.30-23.30

Brexit just noise for bullish UK offshore

Uncertainty about how and when the UK will leave the European Union is having negligible impact on interest among offshore wind developers in the upcoming Contracts for Difference auction, WindEurope 2019 has heard.

Karl John, a renewable energy specialist at the UK Department for International Trade, insisted the allocation round will open as scheduled at the end of May with CfD winners to be named early in the fourth quarter.

The pipeline of bidders is "way in excess" of the capacity on offer and the sector is buoyant, he told a day 1 session on Brexit in Bilbao.

"One thing the government has been very clear on throughout this crisis is that the UK is going to stick to its climate commitments," he said. "In fact, there are moves afoot to try and

exceed the 2050 targets in particular." Siemens Gamesa UK managing director Clark MacFarlane said bidders are completely focused on the auction.

"I haven't heard any of them say that they are not going to bid due to the uncertainty of Brexit," he said. "I was involved in the discussions on the (30GW by 2030) sector deal and I don't think there was any appetite to change the auction process."

UK-based developers have,

however, been mitigating for a possible no-deal scenario. MacFarlane said the biggest risk is potential labour shortages and import delays.

ScottishPower Renewables has stockpiled materials it requires for 2019. "(Brexit) hasn't impacted us financially in that our spending for the year hasn't changed, it's just been brought forward," said SPR's Hazel Gulliver.

"We're lucky that we have the capacity to store what we need."

Digitisation skills challenge

The global wind sector is facing a major skills challenge as it grapples with opportunities posed by digitisation over the coming decade, according to key industry figures.

Companies need talented engineers capable of working with large turbine components, and more data

analysts and programmers are required to work on machine learning and artificial intelligence, said Siemens Gamesa chief executive Markus Tacke.

Iberdrola chief executive Ignacio Galan said the industry is working with universities and governments to foster the best talent.

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Coal parity a big milestone for wind costs

Wind power is now as cheap as coal-fired generation and has the potential to become cheaper still, WindEurope 2019 has heard.

Steve Lockard, chief executive of US turbine blade manufacturer TPI Composites, told delegates the price comparison is a "huge milestone" for the sector.

Lockard, who is also an event ambassador, added that wind's ongoing cost reduction journey has farther to go. "We are not done," he declared.

"I think larger rotors and taller towers, where they are permitted, will continue and just the physics of our turbines will bring the costs down," he said during

the opening session on Tuesday. To accomplish those reductions, Lockard said companies including TPI Composites are developing more advanced materials and working on modular blades to move large components more easily.

He also called on countries to make sure trade policies allow the industry to continue to operate on a global scale.

Lockard said there are now more than 160 companies globally either buying or have signed up to buy 100% of their electricity from renewable sources over the coming years.

"So from a customer standpoint, customers want what we are selling."

Eirgrid global learning tour

Irish transmission system operator Eirgrid is seeking to tap global expertise to prepare the country's network for growing levels of wind and other renewables generation.

Chief executive Mark Foley, who will lay out the company's vision during a panel discussion on day two, said greater collaboration with international and domestic energy players will be key to delivering an expected 70% green electricity target by 2030. "Globally, we expect

potential partners to be in Europe and North America but another market we are also interested in is Australia and have been in some communication with the grid operator," he said.

The push is part of a strategic review being undertaken by Eirgrid that will be completed in the summer.

■ Mark Foley will speak during the 'System integration: the next frontier for wind energy?' session on Wednesday at 09.00 in Auditorium 1.

Superconductor report card

Initial results from an EU-backed project investigating the use of superconducting turbine generators will be released at WindEurope 2019.

Markus Bauer, business development vice president at German superconducting materials developer Theva, will outline the data at a session on day two.

The company is part of a consortium led by manufacturer Envision. The component is being tested in a two-bladed Envision 3.6MW turbine that started operations

earlier this year in Denmark. Direct drive turbines using superconducting generators have the potential to be smaller, lighter and cheaper than permanent magnet units.

"Turbines designed around lighter generators could have specific advantages for floating offshore wind as support structures can be designed for lighter weight turbines," said Bauer.

■ 'Next-generation components for wind turbines' takes place in Luxua 1 on Wednesday at 16.15.

Senvion targets Spanish onshore sweet spot

Senvion is eyeing new business in the Spanish onshore wind sector and believes the country is one of the best-placed European markets for future growth.

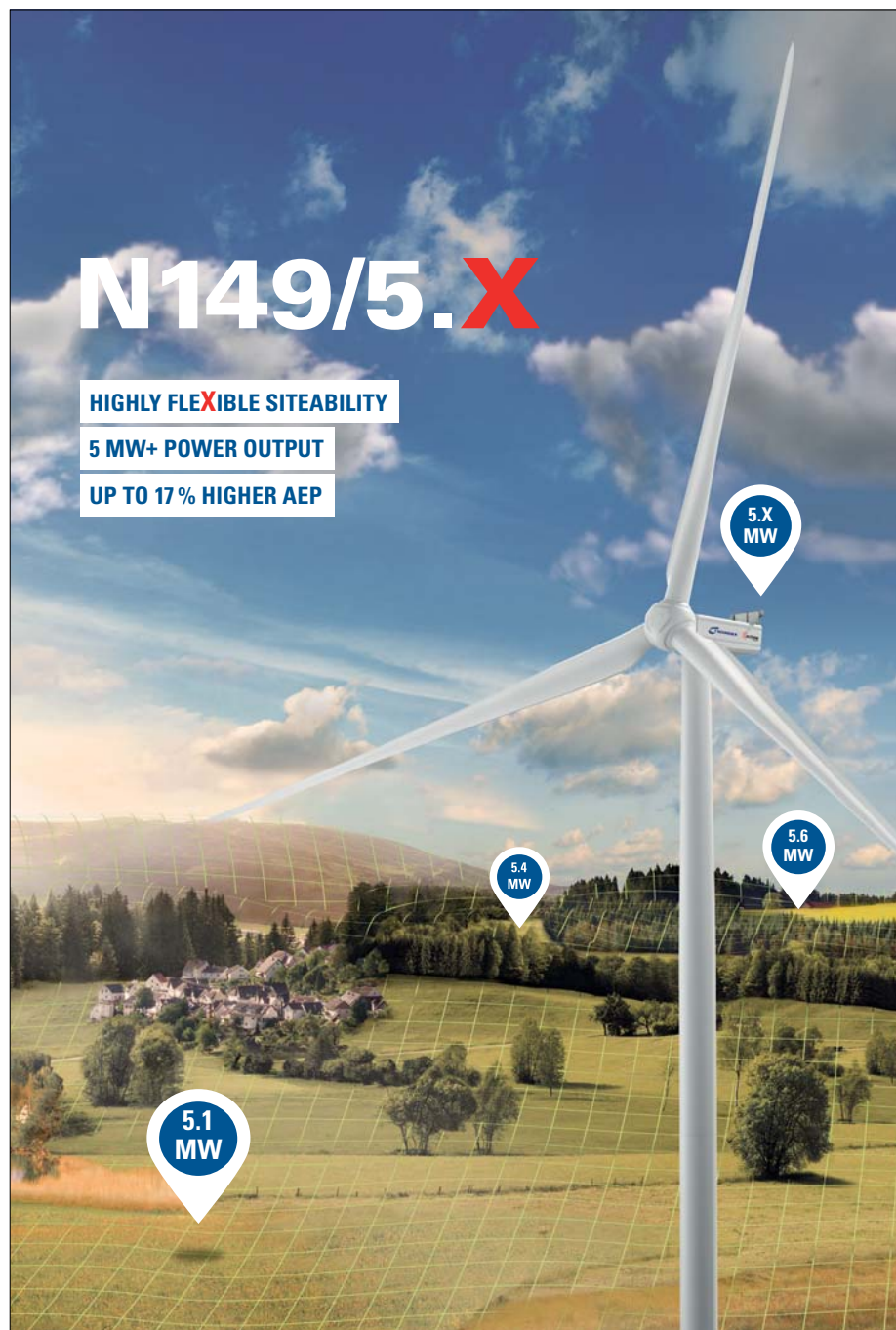
Chief executive Yves Rannou told reNEWS the German turbine manufacturer has "lined up" orders in the

market after re-entering the segment last year.

"(Spain) has become very important to us. We are currently installing three wind projects in the province of Soria. We have built up a reliable network of suppliers and are very much looking forward to intensifying

these contacts." Rannou said Madrid is aware of the sector's potential but added that a "major challenge" is the absence of a clear national energy strategy.

Juan Virgilio Marquez, chief executive of Spanish wind association AEE, said a stable regulatory framework is vital.



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THE INTERVIEW reNEWS



Setting the scene at WindEurope 2019, senior industry figures talk to reNEWS about the vital issues shaping the sector. Today it's the turn of Julio Castro (left), Iberdrola head of renewables in Spain

Q How do you see the prospects for the Spanish onshore wind industry and possible potential for offshore wind?

A Spain has an excellent outlook. We are talking about installing 60GW of renewable capacity to be developed over the next 10 years and wind energy will have a relevant role with more than 27GW of new capacity. Those estimates surpass, by all accounts, the past golden era for renewables in Spain. In addition, it happens at a time when wind is competitive on its own, without any subsidies, and therefore there is no risk of impacting energy tariffs.

Q What are the major challenges facing the Spanish onshore sector and offshore development, and how can these be overcome?

A Permits have become the key barrier to project development in Spain. We would also need to see more detailed measures and policy decisions to implement the National Energy and Climate Plan and have the Climate Change and Energy Transition Act approved by Parliament. Offshore, water depths and seabed conditions are the biggest challenge. As technology develops, however, opportunities could be realised.

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

A Access and connection to the grid could be enhanced by adapting rules to the new realities by opening the door to hybrid installations or properly defining the role of energy storage. In terms of financing, regulation of the power purchase agreement market could be improved by setting up fiscal incentives. There should be a clear timeline for renewable capacity auctions, readily planned and announced, so they can add to the PPA market in order to meet the 2030 targets.

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

A I believe that nobody has any doubt today that renewables are the future but we must continue raising awareness. We must engage with local communities that will host projects and open a dialogue so they understand not only the benefits but also how we design, construct and connect our facilities. Let us not forget that we must be planning ahead to turn future energy demand green as a result

of the electrification of transport and heating in addition to the consumption of today.

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

A We are investing massively in the most cost-effective renewable technologies in existence today. We work very closely with our supply chain partners to encourage innovation and efficiency, and we embrace and adopt new technology and processes in to our projects. We also continue to improve processes in operations and maintenance with the aim of continually driving down costs.

Q What are the main subjects that you want to see debated during this week in Bilbao?

A The main challenge I am sure will be debated is how to set the framework to deliver all the renewables capacity needed to meet 2030 targets and move towards fully decarbonising the economy. Other topics of particular interest are grid access, permitting, power purchase agreements, capacity auctions and the electrification of the economy, plus how to engage with local stakeholders and raise awareness about the benefits of wind. Photo: Iberdrola



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Onshore turbine pressure cooker

Manufacturers and component suppliers must keep up their investment in next-generation hardware, writes Amir Garanovic

renews.biz



GOING LONG: LM Wind is deploying full-carbon technology in its two-piece blade design for GE's new Cypress turbine platform, according to the component supplier's senior director John Korsgaard

Photo: LM Wind Power

Onshore wind turbine manufacturers are facing turbulent times, according to consultancy Wood Mackenzie Power and Renewables' principal analyst for global wind technology Shashi Barla.

Along with component suppliers, companies must plan for a "new normal" of faster rates of product introductions as auction prices drive down wind farm costs.

To stay competitive, he said, investment in next-generation turbines must continue but this comes with its own

challenges. Aggressive bidding in capacity auctions around the world has affected turbine pricing, which has led to lower profit margins that in turn threaten to eat into research and development budgets, said Barla.

Manufacturers with global operations and supply chain coverage plus a higher volume per product platform will tend to be better positioned. Smaller players focused on a "few regional pockets" may not need the same degree of investment to roll out new turbines but are vulnerable to market fluctuations.

Turbines contribute between 65% and 70% of the total capex of onshore wind farms, according to WoodMac.

"The good news for the project developers and asset owners is that over the last eight years the average turbine selling price per megawatt has declined by more than 30% while technology developments have enabled a 50% increase

in annual energy production at the same time.

"This has provided a conducive business case for projects and further investments in technology and will only result in more efficient turbines lowering the levelised cost of energy and making wind a competitive source of power generation in many markets."

On the operational front, the transportation of single-piece turbine blades longer than 75 metres is a "critical current bottleneck" for the industry. "Wood Mackenzie forecasts the deployment of blades longer than 70 metres will increase tenfold in the next five years," said Barla.

Suppliers are positioning themselves to meet the challenges and opportunities the ultra-long blade trend brings, according to LM Wind Power senior director John Korsgaard.

"Transport of ultra-long

blades is an increasing challenge. Two-piece blades are one way to deal with that," he said. "Blades for stall-regulated wind turbines have a tip-break, which in essence constitutes a segmentation of the blade into two parts."

Blades are the subject of a dedicated conference session at WindEurope 2019 on Wednesday. The session in Luxua 1 kicks off at 14.00.

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