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€1bn port investment 'will help offshore fly'

European ports need investment of up to €1bn for upgrades to enable expected growth in offshore wind capacity to 70GW by 2030, according to WindEurope **p2**



Aker pays to play in floating offshore wind

Floating offshore wind has entered the commercial big league, according to Norwegian services outfit Aker Solutions, which is working to leverage its oil and gas experience in the sector. p3

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Today, Northland Power chief executive Mike Crawley **p4**

Nurturing growth in emerging markets

Governments of emerging wind markets need to step up to the policy plate if growth targets are to be met and surpassed, industry experts will say to address the WindEurope conference 2018 theme for Friday - New markets, new frontiers: the long-term outlook. **p5**

Big Data

Repowering needs Berlin boost – Eon

German heavyweight Eon has called on Berlin to simplify the path for onshore wind repowering projects and unlock a substantial boost in capacity.

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Planning requirements are currently too strict and on a par with newbuilds, onshore wind executive Katja Bartsch-Wuenschel told renews at WindEnergy Hamburg.

Existing setback distances from operational sites, for instance, should be extended to cover repowering efforts, she added.

German states including North Rhine-Wesphalia and Schleswig-Holstein have in recent years adopted more prohibitive minimum distances from municipalities.

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The Eon executive also called for the harmonisation of permitting and auctioning procedures for onshore wind farms across EU member states.

Uniform requirements would help streamline development across the continent, said Bartsch-Wuenschel, while clear visibility of capacity to be offered in future auctions is another key element. Taken in combination, the



VINTAGE VALUE: sector asks for simplified rules Photo: Fon

changes could help to speed up onshore wind expansion towards the new EU goal of 32% renewable power by 2030, she said.

Eon has so far had limited involvement with repowering in Germany with six vintage turbines in Brandenburg replaced by two modern machines.

EnBW starts building North Sea service hub

Utility-developer EnBW has kicked off construction of a service hub for its wind farms in the German North Sea.

The facility on an airfield in Emden will offer office and working space as well as a storage hall for spare parts and tools, along with nearby helicopter access.

The new site will host EnBW's Offshore Service unit starting in mid-2019. Some 40 employees will initially be performing maintenance and service work for the 609MW Hohe See/Albatros complex.

An additional 20 staff will be needed for maintenance of the planned 900MW He Dreiht set to go live in 2025.

EnBW has meanwhile chartered the underconstruction SOV Bibby

Ether**CAT**

Wavemaster Horizon from Bibby Marine Services for a period of 10 years to service the projects.

Innogy is eyeing Japanese offshore wind opportunities with local players J-Power and Kansai Electric Power. Taiwan and India are among other markets of interest for expansion, said the utility.

TRENDING ON renews BI7 **LIVE@ WEH 2018**

Hall B4 Booth 401

ather risk in

offshore blade inspections

SkySpecs drones to star for Siemens Gamesa

German manufacturer has signed an agreement with SkySpecs at WindEnergy Hamburg for drone inspections of onshore and offshore turbine blades. Remotely-operated units can complete a full component survey in less than 15 minutes, it said

Windtechnik making hay at WindEnergy

Deutsche Windtechnik has signed turbine service contracts totalling 56MW during the WindEnergy Hamburg 2018 trade fair and expects more to follow before close of play on Friday. Deals cover Nordex, Vestas and Bonus turbines, among others.

Shell oils industry gears

Shell Lubricants has launched a new synthetic gearbox oil for the wind industry that comes with a 10-year warranty, double that of standard products. Omala S5 Wind is designed to help extend operational uptime by reducing unplanned breakdown and associated costs, the company said.

ABB grid kit in DNV GL sights

ABB has installed 320kV HVDC gas insulated switchgear at DNV GL's Kema HVDC laboratory in the Netherlands as part of the EU-supported Promotion project. Testing will start later this year to demonstrate the technology in real-world conditions.



Hall B6, booth 319

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Day 4 expo and conference highlights

Frontier fun

A new markets sessions at the WindEurope conference will look at the long-term outlook for wind and new developments, including new frontiers, which may soon change the face of the industry. Senior executives from Equinor, MHI Vestas and GE are contributing.

Brussels, 09.15-10.15

Falling for Vattenfall

The Swedish utility is to open up its stand on Friday to show off vocational and dual-study options at the company and is also holding a diversity and inclusion discussion. B6, stand 339, 10.00-11.30

Cashing in

Financing wind in emerging countries will examine how developers get backing for projects in markets where several challenges including political uncertainty, permitting difficulties and grid problems are front and centre. Hamburg, 14.45-16.00

Swat up on renewables

University of Freiburg programme co-ordinator Philippe Bucher gives an outline of three courses offered for studying renewables, including wind and solar. Learn how to get your foot on the industry ladder with some further education. Speakers corner, 13.00-13.15

€1bn port investment 'will help offshore fly'

European ports need investment of up to €1bn for upgrades to enable expected growth in offshore wind capacity to 70GW by 2030, according to WindEurope.

Spending will help the wind development segment cut costs by about 5.3%, the WindEurope Ports Platform said today at the Global Wind Summit in Hamburg.

"This investment would enable ports to offer efficiencies such as in more capable vessels that can complete installations faster or in consolidating operations, maintenance and service in dedicated port hubs," WindEurope said.

New port facilities are also needed for the expected decommissioning of more than 600 turbines that will reach the end of their lifespans between now and 2030, it added.

WindEurope chief executive

Giles Dickson said: "Ports are an essential part of the offshore wind supply chain. They are natural centres of industrial activity and help to bring together knowledge and labour to offshore wind.

He added: "Investments will help the offshore wind sector to cut costs and help ports to attract new business activities. We would be keen to see new public-private partnerships and the allocation of existing EU funds to make this happen."

WindEurope Ports Platform chair Wim Stubbe said: "We are keen to do this at a European rather than national level. We need to work together to prepare for future markets such as the decommissioning of offshore wind farms."

Industry job opportunities galore

More than 50 international wind companies are descending on WindEnergy Hamburg 2018 on Friday for a giant recruitment drive.

Skilled specialists will have an opportunity to meet with human resource managers in the recruiting area, which is located on the upper floor between Halls B1 and B2.

Job opportunities will be on display and a recruiting forum will take place. Participants will have a chance to learn about recent trends in recruiting, vocational training and higher education options.

Insa Helmholz of German HR service provider Kelly Services will talk about her customers' requirements and job opportunities in the sector.

Participants will also hear from Florian Rebstock from Germany union IG Metall on starting salaries and wage agreements they can expect in the sector.



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Location: Hamburg Messe und Congress Hall B6 – Stand 553

Date: 25-28 September 2018





Aker pays to play in floating wind

Floating offshore wind has entered the commercial big league, according to Norwegian services outfit Aker Solutions, which is planning to leverage its experience in oil and gas in the sector.

"We believe floating wind is now leaving the demo stage and is ready for large-scale commercial projects," Aker head of wind Astrid Onsum told renews.

"We believe the sector will

become subsidy-free in the not too distant future, not for the first projects but as we scale we believe that is where it will go."

Aker this year acquired 5% of floating foundation designer Principle Power, with an option to up its stake to 10% by the year-end.

Onsum said the deal reflects both a financial and industrial alliance. "In general, we look for where

our competence, products and offerings can add value," she said. This could include providing floating structures, substations, power cables, project management, procurement, systems integration and more. In April, Aker along with Principle Power and EDPR were selected in a public-private partnership to develop a floating wind project around 30km off the coast of Eureka, California.

The up to 150MW

development is expected to come online by 2024.

Onsum said Aker is working on "a number" of wind project opportunities globally, both to feed the grid and for niche industries with unique needs such as oil and gas.

FIRST FRUITS: Equinor's 30MW Hywind Scotland project has broken the ice for commercial-scale floating wind

Photo: Oyvind Gravas/Equinor ORE Catapult highlight on lack of standard foundation design

The absence of a standardised design for floating offshore turbine foundations is a key factor slowing the realisation of commercial-scale projects, the WindEurope conference 2018 will hear.

"Nothing has risen to the top in terms of a go-to solution and there are still debates going on about barges, semi-subs or spars in concrete or steel," according to Gavin Smart, head of insight and analysis at UK research hub Offshore Renewable Energy Catapult.

Smart is chairing a Friday afternoon session titled 'Towards commercial deployment: key lessons from the most advanced floating wind projects' at the conference, which is being run in parallel to WindEnergy Hamburg.

The session features speakers from Equinor, Ideol and Principle Power, each of which has its own favoured foundation design.

Final choices are likely to come down to the ability to manufacture them, according to Smart. "Local

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Swiss engineer ABB is to supply transformers speciallydesigned for floating wind turbines to MHI Vestas for the 25MW WindFloat Atlantic

project off Portugal. The WindStar transformers will be installed on the three 8.4MW turbines that will make up the floating project to be located 20km off the coast of Viana de Castel.

ABB said the units have been specifically engineered to be extra resilient against strong vibrations and extreme and sudden movements

Custom transformers from ABB encountered on floating wind farms.

> The 66kV transformers are all designed to fit into the tower of offshore turbines, it added

WindFloat Atlantic is scheduled to come into operation in 2019.

ABB transformers business managing director Markus Heimbach said: "These transformers are another pioneering ABB technology innovation that will facilitate the integration of more renewables into the grid."

manufacturers and ports will have different expertise and limits," he said.

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THE INTERVIEW DE NEW DE NEW

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

Alt is a pivotal time for offshore wind as emerging markets start to take form, such as the US, Taiwan and, if you look farther down the line, others like Japan, Korea and Poland. For the first time, you can see a global offshore wind market developing.

One of the challenges for the sector is to figure out how the good lessons learned in Europe can be transferred in a cost-effective way to new markets. There has obviously been a lot learned in Europe on fabrication, execution on marine construction and operations. All lessons can be easily applied to new markets; however, each one of these new markets has challenges as well, like the Jones Act in the US or local content requirements in Taiwan.

The industry has to start seeing how to manage and adjust for new markets given those challenges.

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

Al think for offshore wind, it is a very exciting time. Just a few years back, it was seen as a very risky investment. Only now is it really emerging to be a

% GE Renewable Energy



global industry and, in some markets, is emerging as the lowest cost alternative for a significant volume of generation. If we manage it well, it could open doors to a huge amount of growth for offshore wind.

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

A First, offshore wind is a business of scale with high upfront mobilisation costs on the construction and fabrication sides. One of the biggest challenges is the desire of policymakers and governments to impose local content obligations, which have the potential to drive up cost and impede the growth of the sector in some areas if too onerous. Just from cost of transport alone, there will be local content bonus in any new market without having to impose any requirements.

Second, for cost-effective offshore wind power, policy needs to give a good line of sight in terms of how much opportunities and procurement are going to happen in a jurisdiction so the supply chain can mobilise and get set up. If it is just done on a tepid basis, that can impede the growth of the sector.

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

Ahead of WindEnergy Hamburg 2018, renews spoke with senior industry figures on vital issues. Today we hear from Northland Power chief executive Mike Crawley *(left)*

> A The best argument is that it is a low-cost alternative. The industry and policymakers have to work together to figure out, in terms of off-take contract structure and any local content obligations, how you structure this to get lowest-cost offshore wind. By doing that we make the most compelling argument to procure offshore wind. And that is what is causing offshore wind to take off – seeing costs come down.

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

A Scale is very important and we are doing a few things. First, we are establishing an offshore service centre in the greater Hamburg area that will service both Nordsee 1 and Deutsche Bucht projects, allowing us to get economies of scale.

Second, we are establishing an offshore wind centre of expertise, also in the greater Hamburg area, which will be used to optimise projects around the world to try to leverage those lessons learned in Europe.

Third, in Taiwan, where we secured just over 1GW in this year's allocation, we are actively building a supply chain, working with suppliers to see how we can get the most cost-effective procurement for those projects. Photo: Northland Power

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Nurturing growth in emerging markets

Conference wraps up with discussion on the long-term outlook for new frontiers, writes Patrick Browne

G overnments of emerging wind markets need to step up to the policy plate if growth targets are to be met and surpassed.

That is the message from industry experts ahead of the WindEurope conference 2018 theme for Friday — New markets, new frontiers: the long-term outlook.

Sessions will explore how the industry is changing and areas of future success as well as what is needed to ensure projects can be delivered.

India is among the offshore markets seeking traction and is targeting 5GW of installed capacity by the early 2030s.

Brazil also has grand designs and state oil company Petrobras is set to commission the country's first 5MW offshore pilot wind project by 2021.

Many other governments have set minimum capacity targets with deadlines but specific policies are needed if they are to be realised, the conference will hear.



GROW NOW: Gaurav Gupta Photo: L&T Technology Services

"Developing markets such as India need initiatives to upgrade their power infrastructure to integrate renewables into the system," said Gaurav Gupta, chief business officer at Indian engineering outfit L&T Technology Services, which is the day partner for the conference on Friday.

The extent to which the global wind industry can capitalise on renewable energy's growth trajectory out to 2050 depends on how well it meets a complex web of challenges and opportunities, added Gupta. For example, in Japan specific policy interventions are needed, such as a rewriting of the Port and Harbour Coastline Act, if space for significant commercial developments is to be opened up.

For onshore wind, rich pickings are still to be had for those developers looking to push into untapped markets, said Gupta.

Argentina, Russia, Nigeria and Saudi Arabia are among the most promising nations, having less than 400MW of operational projects in total.

New technology, including turbines for low wind speeds, larger capacity machines and efficient de-icing and blade heating systems will help open up acreage in new and established markets, sessions will hear on Friday.

Enel Green Power business development boss for Europe and the Middle East Andrea Panizzo said new policies related to guaranteeing regulatory support that facilitates long-term contracts should be considered for mature markets. Panizzo is speaking during the day's first session.

Supports for other novel technology options like floating wind, hybrid wind/ solar/wave and tidal efforts as well as wind-plus-storage options also need to be found if they are to make it to the commercial mainstream.



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