

luftpost Offshore special

Newsletter Deutsche Windtechnik

Full service offshore

Ballast Nedam deal

Circuit testing

Marine coordination



WEATHER CONDITIONS ARE DECISIVE: Maintenance of the meteorological meter on the OSS Butendiek.

REDUCING COSTS WITH PROJECT SYNERGIES

MANAGING INTERFACES IN OFFSHORE MAINTENANCE

Deutsche Windtechnik is a pioneer in the provision of offshore services and has been handling a large variety of different offshore maintenance tasks for more than a decade. Its expertise has now matured to the point where the service specialist now offers a comprehensive full service both above and below water.

“Our staff and our infrastructure have displayed a strong development over the last three years in particular. With more than 100 employees, we are now in a position to offer a comprehensive service for the maintenance of offshore wind farms from a single source,” said Jens Landwehr, CEO of Deutsche Windtechnik Offshore und Consulting GmbH, talking about the company’s strong growth.

FULL SERVICE ABOVE AND BELOW THE SURFACE OF THE SEA

The services cover turbines, transition pieces, offshore substations, corrosion protection, cables/networks and, starting this year, foundation and foundation structures both above and below water. Specialised teams from our

in-house Technical Controlling department take care of wind farm operation, logistics and technical management (e.g., contract, claim, risk and asset management), operational management (24/7 monitoring,

“Customers benefit directly from the cost optimisation”

network administration and 33KV/260KV switching operations) as well as marine coordination (maritime monitoring and surveillance) and site management.

SITE-SPECIFIC USE OF INTERFACES

Customers appreciate not only the highly flexible approach to service work (for more information, see our spotlight on page 4): “Our decisive advantage is that we coordinate individual orders from the respective offshore wind farms in a useful way, e.g., very successfully in terms of logistics and personnel as well as for maintenance operations and necessary repairs.

LATEST NEWS

COOPERATION WITH CORROSION

Deutsche Windtechnik and the world market leader for active cathodic protection systems, Corrosion, are now cooperating on the maintenance of 284 offshore foundation structures. Under the contract, Deutsche Windtechnik is responsible for the functioning of the whole system including inspection, maintenance and any necessary repairs.

TAKING NORDERGRÜNDE UNDER OUR WING

Project developer and operator wpd recently awarded Deutsche Windtechnik Offshore und Consulting the full-service contract for the Nordergründe offshore wind farm. Commissioning of the 18 Senvion 6.2 turbines and the offshore substation is planned for 2016.

HELICOPTER EVACUATION

Working on offshore wind farms requires special rescue training. Deutsche Windtechnik employees thus regularly take part in emergency exercises under highly realistic conditions. The evacuation from the Butendiek offshore substation with a helicopter is now available on our YouTube channel.



INTERVIEW

EDITORIAL



Dear offshore friends,

The federal government is planning to change over to tendering procedures for the next fixing of the feed-in tariff. The accompanying reduction in the feed-in tariff must be absorbed constructively and proactively by all stakeholders for it to be possible to operate offshore wind parks (OWP) viably in the long term.

If manufacturers attempt to keep the costs of kilowatt hours low by means mass production, more powerful turbines and cutting the erection costs, we as full-service providers also need to do our homework.

Our cross-OWP interface management has proven itself a key cost-optimisation tool. Based on our ten years of offshore service expertise, we are happy to support operators in their efforts to steer operating costs (OpEx costs) in the right direction.

Sound good? We hope you enjoy the read!

Jens Landwehr
CEO Deutsche Windtechnik Offshore und Consulting

COMPLETE TRANSPARENCY — EVEN UNDERWATER

A STATEMENT ABOUT THE ASSET DEAL WITH BALLAST NEDAM AND NEW PROJECTS

The deal was finally perfected in March of this year: All offshore maintenance contracts for foundations and cables of Dutch construction company Ballast Nedam passed into the hands of Deutsche Windtechnik. Geert Timmers, Country Manager for The Netherlands, gives us an insight into the new offshore business for the company which has been created as a result.



GEERT TIMMERS
managed the Ballast Nedam deal

All customers had to be brought “on board” for the asset deal. How was that accomplished?

It was an all-or-nothing proposal where all customers had to agree. We ensured that the same team would work on their projects, under the same contractual conditions. Ultimately, it was the fact that Deutsche Windtechnik offers an all-round service for offshore wind farms that clinched the deal.

Do these customers benefit from our full-service approach?

The integration of the engineering expertise brings advantages for all customers. For new Dutch customers, such as Eneco, we can provide more services for their substation and turbines. For existing customers, we have more to offer in terms of subsea inspections and operations, cable or seabed surveys and knowledge about the construction and its life-time. An immediate advantage is the integration of activities, resulting in efficiency gains, fewer interfaces and optimised logistics.

How does the deal complement the offshore services to date?

The Ballast Nedam team has many years of

experience in foundation inspections and repair activities. It is the experience performing this work which guarantees the necessary degree of occupational health and safety, corrosion protection and evaluation of the structural integrity. Wherever access is diffi-

“Customers are attracted to our dedication to offshore wind power”

cult, such as work with rope access or ROVs (remotely operated vehicles), we are able to obtain inspection results with the desired level of quality.

What opportunities emerge from the deal beyond the Dutch borders?

More than ever before, Deutsche Windtechnik is in a position to offer a full range of experts and experience for offshore wind farms. We have extended our knowledge of complex foundations and soil conditions, the impact of scouring and how to mitigate the risk of cable exposures. The offshore wind market knows no borders: Dutch, Danish and German colleagues work side by side.

The complete article is available to read at: deutsche-windtechnik.com/in-focus.html

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Customers benefit directly from the cost optimisation,” said Jens Landwehr, outlining the advantages of the interface concept.

POLE POSITION: PRODUCTION MONITORING

Developing site-specific and cost-optimised service concepts to suit the customer – that is also the line of approach for the future. For this purpose, it has proven beneficial to be involved in project management from as early a stage as possible, as now, for example, with the Nordergründe offshore wind park (OWP):

To ensure the wind farm’s production quality, Deutsche Windtechnik’s experts are involved as early as the manufacturing and construction supervision phase. Early contractual integration moreover ensures implementation of a cost-effective service concept. “The fact that we are present in the life cycle of the wind turbine ‘from the cradle to the grave’ allows us to achieve optimal interface management and thus minimise process times and costs, from setting up to dismantling,” said Holger Pasch, Head of the Expertise and Consulting department at Deutsche Windtechnik.

INTERNATIONAL PRESENCE

Offshore service teams are currently working at the following OWPs: Butendiek, Dan Tysk, Sandbank, Meerwind, Nordsee Ost, Nordergründe, Trianel Windpark Borkum, Baltic I, Westermeerwind, Luchterduinen and Prinses Amaliawindpark. Deutsche Windtechnik is currently participating in further tenders in the Netherlands and the United Kingdom.

This page also contains an interview with Geert Timmers, Country Manager for The Netherlands.

TECHNOLOGY

SWITCHING TIMES UNDER CONTROL

FOR OPTIMAL ELECTRICITY FLOW TO THE LOAD

Circuit breakers of all sizes are one of the main components involved in electricity transmission. They are responsible at wind farms for switching the flow of electricity in a controlled manner and protecting systems, such as wind turbines or the substation.

One important test for ensuring functionality is switching time measurement. It is normally performed during the annual network check, as this requires a voltage-free switch. It involves determining the time the switch requires from the start of measurement via the tripping circuit until the closing or opening of the power contact. It is a process that takes

about 30 milliseconds and requires careful work and the use of high-performance test equipment.

For the challenges faced when measuring on the high voltage side, we use devices that permit testing of individual phases. The measurement effort is tripled due to three-phase switches, with which each phase can be switched individually. To allow for maximum compatibility with customer systems and optimal documentation, we rely on the high-performance equipment from Omnicron.

PERSONNEL

NEW HEAD AT OFFSHORE AND CONSULTING

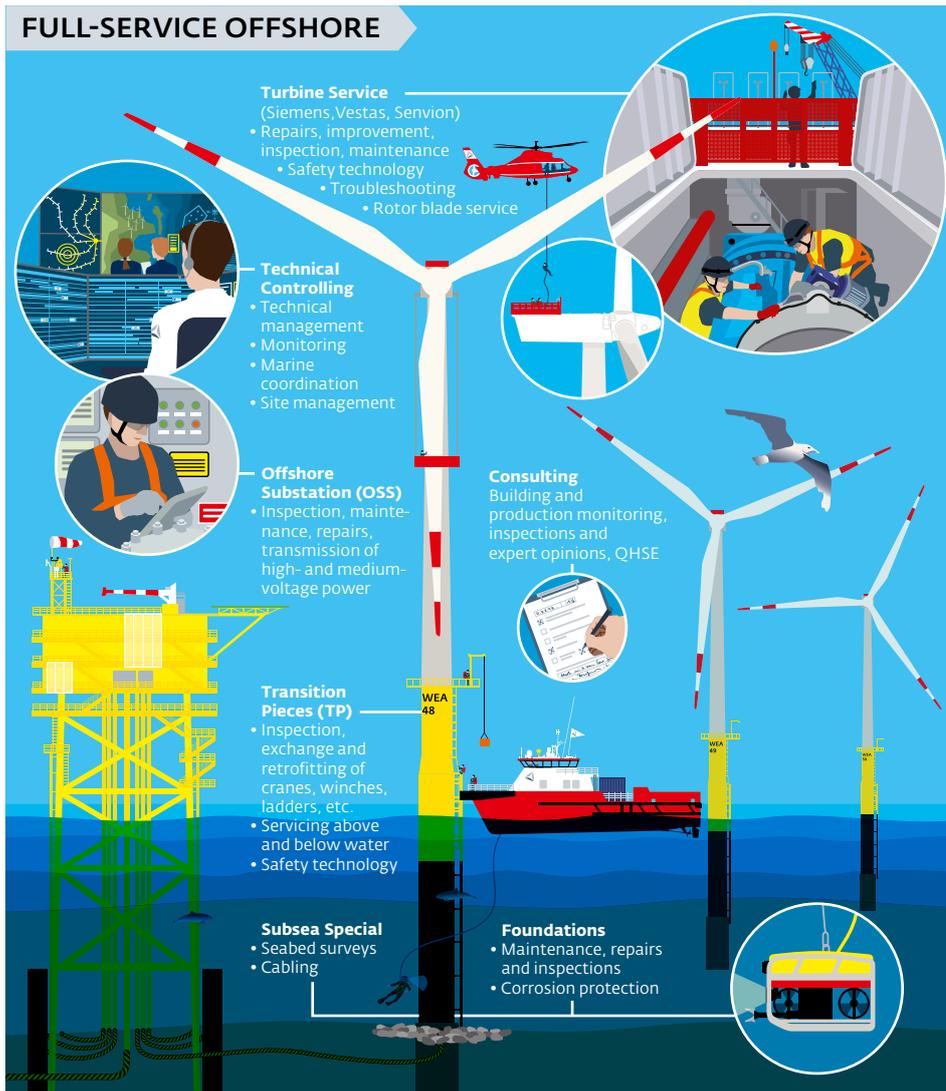
Since February, Alexander Huth has been the new project and sales manager at Deutsche Windtechnik Offshore und Consulting. The 31-year-old has always had a penchant for marine life. What started as an apprenticeship to become a ship mechanic later developed into a



ALEXANDER HUTH
knows much more than
just theory

full-blown interest in the offshore wind industry. His technical support job at AREVA Wind GmbH in Germany and abroad (the UK to be more specific) was the perfect introduction to the world of offshore maintenance of wind turbines.

FULL-SERVICE OFFSHORE



FULL SERVICE ABOVE AND BELOW WATER: In addition to servicing, the team also offers the operational management and technical controlling of the wind farm, for example.

PARTNER

SERVICE² WITH MH² OFFSHORE

Cooperation stands out when the services of the parties involved complement each other perfectly. This is precisely the kind of collaboration recently sealed in a framework contract with mh² Offshore GmbH from Bremerhaven. The company with 13 employees, specialising in structural steelwork engineering and welding technology in conjunction with rope access technology, will complement future offshore projects of Deutsche Windtechnik wherever welding work is required – such as when repairing transition pieces. Alexander Huth, project manager at Deutsche Windtechnik Offshore und Consulting, is looking forward to joint projects: "The engineers at mh² bring along expertise that provide us with additional solution options for our projects."

In the field of welding technology, the experts offer the standard procedures (WIG (141), MAG (136) and E-HAND (111)) that are used for welding assembly as well as repair and stainless steel welding. Their portfolio also includes non-destructive weld seam inspections. mh² Offshore will also profit from the cooperation. "The collaboration provides both parties the opportunity to expand their respective vertical integration significantly. We complement each other perfectly," said Markus Hummel, CEO of mh² Offshore GmbH, affirming the decision.

SECOND GLANCE

THE CHARM OF RESPONSIBILITY

Hans Spengler has been with Deutsche Windtechnik Offshore und Consulting since August 2015 and currently manages the four-member marine coordination team in Bremen. The 25-year-old came on board with the project of establishing and helping build the offshore control room.

What do you find so interesting about your job at Deutsche Windtechnik?

As a marine coordination specialist, you face new situations every day. As a link between all project participants, I have an overview of the entire project. That is what makes the job so varied. The high degree of responsibility has a special charm: During shift operation at weekends or during holiday times, for example, you are the only contact person for important information. Everything must therefore run smoothly.

Do you work exclusively from the control room or are you also "on site"?

A big plus is the mix of office and field work. During offshore operations that directly involve marine coordination, for example, with matters such as radio communication, navigational equipment (radar, monitoring software), ship inspections and people tracking,

we are often directly on site. There we often work with colleagues from Havneby, our Danish site, from where we control the Dan



HANS SPENGLER, head of the young team

Tysk and Butendiek wind farms. Both teams work together very closely and smoothly.

You work 16/7. How do you organise yourselves?

We are a young and very flexible team. Each member sees himself as a key element in the team and quickly jumps in for another member when there is a shortage of manpower. Our shift schedule is jointly planned and agreed rather than being "mandated". This results in a high level of satisfaction among colleagues.

MARINE COORDINATION

HOLDING ALL THE "STRINGS" IN YOUR HAND

Offshore wind farm operators are responsible for ensuring that all regulatory requirements at sea are met – for the protection of both man and nature. A high level of expertise and manpower is required to comply with the various directives and laws.

Since October 2015, operators can delegate this responsibility to Deutsche Windtechnik Offshore und Consulting's marine coordination (MC) team. In addition to maritime surveillance, the experts also offer coordinating and conceptual work as well as so-called "people tracking" via RFID.

"We pull all the strings: We are the interface between all stakeholders, such as ship or helicopter crews, technicians on wind turbines or the offshore substation as well as to waterway and shipping offices," explained Hans Spengler, marine coordination team leader. In cooperation with the technical control room, marine coordination operates 24/7 with modern IT systems that centrally track and coordinate maritime activities, including ship movements and the locations of people.

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ON THE RADAR

WINDFORCE CONFERENCE 2016

07-09.06.2016 | BREMEN
windforce.info/windforce2016

GLOBAL OFFSHORE WIND 2016

21-22.06.2016 | MANCHESTER
www.renewableuk.com/en/events/conferences-and-exhibitions/global-offshore-wind-2016

WINDENERGY HAMBURG 2016

27-30.09.2016 | HAMBURG
www.windenergyhamburg.com

OFFSHORE WIND CONFERENCE 2016

24-25.10.2016 | AMSTERDAM
www.offshorewindconference.biz

SPOTLIGHT

SAVING ON INTERFACES – COOPERATION IS THE KEY

Offshore wind turbines, offshore substations and the auxiliary systems require the use of many components from varying manufacturers that must be maintained and inspected in accordance with the warranty obligation. The complexity of the components and the demands on staff constitute a major challenge. It is important to deploy appropriate technical personnel at the right time and the right place.

But what does current practice reveal? In a warranty case, the operator must prove that the required maintenance was been carried out by qualified personnel. Since in many cases only the manufacturers themselves offer maintenance and the service provider located on the wind farm is not allowed to perform maintenance work, the operator is increasingly faced with planning uncertainty. What is more, the manufacturer's specialists are often unavailable.

On the lookout for solutions, Deutsche Windtechnik has proactively approached manufacturers such as Schneider Electric, CWC and Palfinger. New cooperation agreements with defined training concepts for our technical personnel and fixed processes for spare parts supply and direct engineering support now allow both operators and service providers to offer high-quality on-site solutions. All parties stand to benefit from these synergies!

DISCLAIMER

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