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Dong Energy awarded contract to build world's biggest offshore wind farm



The Hornsea Project One. (Courtesy: ABB)

Dong Energy has been awarded a contract to build its Hornsea Project Two offshore wind farm, at the lowest-ever price for offshore wind in the U.K.

At GBP 57,50/MWh, the strike price for the Contract for Difference (CfD) is 50 percent lower than the previous round of CfD allocations just two years ago, demonstrating the rapid reduction in cost across the industry.

With a massive capacity of 1,386 MW, enough to power more than 1.3 million U.K. homes, Hornsea Project Two will become the world's biggest wind farm, even surpassing the 1,200 MW giant Hornsea Project One which Dong Energy is currently constructing.

Hornsea Project Two will be built 89 kilometers from the Yorkshire coast and is expected to be operational in 2022.

Hornsea Project Two will contribute significantly to Dong Energy's ambition of reaching a total offshore wind capacity of 11-12 GW by 2025.

"We're delighted to be awarded a Contract for Difference for Hornsea Project Two, which is another important step towards fulfilling our vision of making offshore wind the most competitive form of electricity generation," said Samuel Leupold, executive vice president and CEO of Wind Power at Dong Energy. "We have always promoted size as a key driver for cost. The ideal size of an offshore wind farm is 800-1,500 MW, and therefore it is natural that Hornsea Project Two will deliver record-low costs to society. At the same time, the low-strike price demonstrates the cost saving potential of developer-built offshore grid connections, which in the U.K. is included in the project scope."

"We remain fully committed to financial discipline, and Hornsea Project Two will be value creating to our investors," he said.

"This is a breakthrough moment for offshore wind in the U.K. and a massive step forward for the industry,"

said Matthew Wright, managing director for Dong Energy U.K. “Not only will Hornsea Project Two provide low cost, clean energy to the U.K., it will also deliver high quality jobs and another huge boost to the U.K. supply chain.”

“Successive governments deserve great credit for providing the certainty for continued investment in offshore wind, enabling it to become the thriving renewable industry it is today,” he said. “Costs are falling rapidly, long-term and highly-skilled jobs are being created across the North of England, and the U.K. supply chain is going from strength to strength. We’re now really seeing the benefits of this commitment to offshore wind, and there is still so much more to come. Indeed, it has the potential to play a key part in the realization of the U.K.’s industrial strategy.”

Dong Energy already is constructing Hornsea Project One and has started the consultation process for Hornsea Project Three, underlining the huge potential of this area of the North Sea for offshore wind.

Cost-drivers enabling the bid for Hornsea Project Two include:

- **Scale:** Dong Energy’s pipeline of construction projects across the U.K. (Race Bank and Walney Extension in 2018, Hornsea Project One in 2020, and Hornsea Project Two in 2022) creates economies of scale. And with 1,386 MW, Hornsea Project Two has the scale required to secure low costs per MW of construction, and low costs per MWh during a lifetime of operations and maintenance.
- **Risk reduction:** Dong Energy already has several years of experience from developing Hornsea Project One in the North Sea. This reduces construction and operation risk of Hornsea Project Two.
- **Synergies:** Operations and maintenance on both Hornsea projects will be conducted from Dong Energy’s new hub in Grimsby, which also serves other Dong Energy offshore wind farms on the U.K. east coast.
- **Maturing industry and technology:** Innovation of offshore wind turbines, new installation equipment and methods, continuous improvements of foundation design, improved cables with higher capacity, and a growing and competitive supply chain.

With the allocation of the CfD, Dong Energy has now taken a final investment decision on Hornsea Project Two. ↘

Source: Dong Energy

For more information,
go to www.dong.com

950 MW offshore wind project in U.K. gets long-term contract

EDP Renováveis, S.A. (EDPR) and ENGIE recently announced that Moray Offshore Windfarm (East) Limited, a joint venture company owned by EDPR (77 percent) and ENGIE (23 percent), has been awarded a 15-year Contract for Difference (CfD) for the delivery of 950 MW of offshore wind generation at £57.50/MWh (in real 2012 terms). The contract was awarded by the U.K.’s Department for Business, Energy & Industrial Strategy (“BEIS”) following its latest CfD auction.

EDPR and ENGIE are jointly developing this project, which is off the northeast coast of Scotland. Upon conclusion of the development phase and the selection of all partners and suppliers for the different stages of construction and operation, the project would then move toward the construction phase. Completion and the commencement of commercial operation is expected in 2022.

“With (the) announcement, EDPR increases its growth options in offshore wind in an attractive market, thereby enhancing and diversifying the company’s long-term profitable growth options while maintaining a balanced risk profile,” said João Manso Neto, CEO of EDPR. “EDPR’s sustained commitment to the U.K. offshore wind market through Electricity Market Reform and the transition to CfD auctions has enabled dramatic cost reduction from £150/MWh in 2014 to £57.50 /MWh today.”

“This auction has demonstrated the real progress in cost reduction, and our result shows how affordable offshore wind can be compared to other technologies, including new thermal generation,” he said. “The U.K. needs more low carbon generating infrastructure to maintain security of supply against an increasingly uncertain future. EDPR has demonstrated what can be done at this site. It is in the UK’s interests to enable us to continue this achievement at other sites”

“We are delighted that the Moray East offshore wind farm has received this CfD, which is an important step in taking this project forward,” said Wilfrid Petrie, CEO for ENGIE in the U.K. and Ireland. “This will be ENGIE’s first offshore wind development in the U.K. and complements our growing global offshore wind portfolio with projects in France, Portugal, and Belgium, as well as our existing renewables operations in the U.K.”

“ENGIE is committed to investing in sustainable energy solutions and innovative services in the U.K.,

including renewable energy generation,” he said. “Moray East will make a significant contribution toward helping the U.K. meet its decarbonization targets, and it will also support ENGIE’s ambition for 25 percent of its global energy portfolio to be renewable by 2020.”

“Moray East’s success in this auction will enable us to bring a high-quality, high-value offshore wind project to the U.K., and I would like to thank all of the organizations, individuals, and communities with an interest in the Moray Firth with whom we have worked to reach this vital milestone,” said Dan Finch, managing director

of Moray Offshore Renewables. “Moray East also brings major economic opportunities to our supply chain. Innovation and co-operation have enabled the cost reduction which ensured success in this auction. Electricity from Moray East will be produced at the lowest cost of any offshore wind farm around the U.K., with exceptional benefits to consumers.” ↵

Source: EDP Renewables

For more information, go to www.edpr.com

CWind awarded TP gate contract



CWind will retrofit the TP Gates at Borkum. (Courtesy: CWind).

CWind, a leading provider of services to the offshore wind industry, recently announced it has been awarded a contract by Dong Energy, to install new and retrofit existing gates on the transition pieces (TPs) at the Gode Wind and Borkum Riffgrund offshore wind farms in the North Sea off the coast of Northern Germany.

CWind, which is part of the Global Marine Group and delivers the company’s power capabilities, will use its own crew transfer vessels, assets, and engineering expertise to help ensure the project is completed successfully and on time.

The CWind Phantom, a 27.4m catamaran, will undertake the work on Gode Wind’s 97 turbines

and Borkum Riffgrund's 77 turbines. Work began September 1, with the first phase expected to be completed in eight weeks.

The entire project has been scheduled for completion within one year and will call upon the skills of eight of CWind's experienced electrical engineers and mechanical technicians, all of whom have benefited from training at the company's in-house facility, the NW-FTC (National Wind Farm Training Centres). Extensive navigational lighting and cable rerouting will be required to accommodate the new gates, demonstrating CWind's electrical engineering capability and capacity.

"We have worked with Dong Energy for many years, including extensive prior work at Gode Wind, and we are pleased to continue our close business relationship," said Lee Andrews, managing director of CWind. "The decision to utilize the same site team for the new project, to ensure consistency, has been well received by the client. Our aim is to always deliver successful projects with excellent customer service. The fact that Dong Energy has returned to CWind demonstrates our can-do attitude and our ability to get things right first time." ↵

Source: CWind

For more information, go to www.cwind.global

Lagerwey enters Belgian market with order for Fortech



Lagerwey turbines are characterized by their direct drive technology, excellent grid compatibility, and high availability. (Courtesy: Lagerwey)

The delivery of two 2.5 MW wind turbines to Fortech represents Lagerwey's first steps into the Belgian market. The two L100 turbines, which have a hub height of 99 meters, will be at the Goeiende wind farm next to the E17 motorway near Zele. The aim is to have the park operational at the end of 2017.

Using the motto "what's not inside, cannot break down," Lagerwey has developed a wind turbine with fewer components compared to normal turbines. Lagerwey turbines are characterized by their direct drive technology, excellent grid compatibility, and high availability.

"Lagerwey is delighted to realize its first wind project in the Belgian market," said Ronald Boerkamp, sales director for Lagerwey. "We would really like to thank Fortech and Triodos Bank for their cooperation, and for the fact that they share our passion for engineering, simplicity and innovation."

"When realizing our projects, we want wind turbines that offer advanced technology and are capable of maximizing energy production within the scope of the license," said Chris Derde, manager with Fortech. "Lagerwey's wind turbine emerged as the best option from our evaluation. In addition, we found a very committed team of specialists within Lagerwey, who shared our values."

"Wind energy supplied by the turbines will be distributed to families, (agricultural) businesses, and municipalities in the region by the Wase Wind cooperative," said Kris Aper, chairman of Wase Wind. "It is also possible for cooperative members to participate financially in the wind farm. For instance, a dividend of 5.5 percent has been paid in recent years." ↵

Source: Lagerwey

For more information, go to lagerwey.com

New flat top tower crane boasts 22-ton capacity

Terex Cranes recently introduced a new addition to its growing tower crane family, the Terex® CTT 472-20 flat top tower crane. This new Terex 22-ton class crane expands maximum jib length to 80 meters (262.5 feet) and increases load charts over previous models offering the same lift capacity on the whole jib length, with a maximum load at the full length of the jib tip of 4.4 tons.

“Fresh off the introduction of our new hammerhead tower crane at CONEXPO-CON/AGG, we offer our customers the new CTT 472-20, an extremely versatile and robust flat top tower crane with great features requested by our customers,” said Marco Gentilini, vice president and general manager for Terex Tower Cranes. “The CTT 472-20 gives the market a flexible solution to meet complex lifting challenges. With Terex fully committed to the tower crane business, we are accelerating new tower crane product development to meet our customers’ needs. This includes a new tower crane cabin that will advance operating efficiency and comfort for our new CTT 472-20 crane.”

Offering a 470 ton-meter load moment, the new CTT 472-20 crane delivers extremely high lift capacities throughout its load chart and 11 different jib configurations from 30 to 80 meters (98.4 to 262.5 feet) to meet varying jobsite needs. Its hoist, slewing, and trolley speeds allow operators to quickly and precisely move and position heavy loads. All jib sections come preassembled with a lifeline for quick, safe installation at height, while galvanized jib walkways deliver long-lasting quality.

The CTT 472-20 can be configured with H20, HD23, and TS212



The Terex® CTT 472-20 flat top tower crane. (Courtesy: Terex)

Terex mast section thanks to the transfer masts with the combination of them.

“Here, Terex offers superior value for the customer, as this gives companies operating multiple Terex tower crane models the ability to efficiently manage component inventory and cost effectively meet their tower needs,” Gentilini said.

The CTT 472-20 flat top tower crane offers a competitive maximum freestanding height to reduce erection time and lower costs. Optimized for transport, these tower segments come preassembled with aluminum ladders for fast erection and increased durability.

The CTT 472-20 is the first tower crane model to include the new Terex cabin that will be installed on all flat top, hammerhead, and luffing jib models. It puts the operator in a fully adjustable comfort seat and has joystick controls with a short stroke length, providing a pleasant and comfortable working environment. The large full-color 18-centime-

ter (7-inch) display with anti-glare screen provides critical operating data and information required for troubleshooting. Built-in heating and air conditioning maintains consistent cabin temperature.

A new control system offers expanded configuration options to meet different jobsite needs. Offering quick set-up, the new controls boast the exclusive Terex Power Plus feature that can temporarily increase the maximum load moment under controlled conditions (e.g. smooth hoist movements) giving the operator extra lifting capacity, by an additional 10 percent, when needed. Power match allows the operator to choose between operating performance or lower consumption to fit lifting needs. An optional radio remote control expands crane-operating efficiency by giving the operator a choice in how he wants to work. ↵

Source: Terex Corporation

For more information, go to www.terex.com



The Seacat Intrepid is a 26-meter catamaran. (Courtesy: Seacat Services)

Seacat Services starts intrepid charter for BOWL

Offshore Energy Support Vessel (OESV) operator Seacat Services has secured a contract with Beatrice Offshore Windfarm Limited (BOWL) to support the construction of Scotland's second major offshore wind farm. The contract comprises a 730-day logistical support charter for the 26-meter catamaran, Seacat Intrepid, that began September 25. Intrepid will be joined by its sister vessel, Seacat Courageous, early next year.

BOWL is owned by SSE (40 percent), Copenhagen Infrastructure Partners (CIP) (35 percent), and Red Rock Power Limited (25 percent). Under development in the Outer Moray Firth in the north of Scotland, the wind farm will produce 588 MW of power. It will receive onshore support from the new operations and maintenance (O&M) hub at the Port of Wick, currently undergoing construction.

With considerable planned investment and opportunities in the Scottish offshore wind sector, the industry is seeking to maximize the benefit of lessons learned and transferrable knowledge accrued in the wider U.K. and European markets. As the first deepwater utility-scale projects come online in challenging waters off the Scottish coast, assembling an experienced project team is a key focus for asset developers and owners.

Having previously established a long-term relationship with project stakeholder SSE at the Greater Gabbard wind farm off the coast of East Anglia, and with vessels under contract supporting construction and O&M activity at project sites throughout U.K., German, and Danish waters, Seacat Services is well-placed to support BOWL throughout the time and resource-intensive construction phase.

In practical terms, at 26 meters, Seacat Intrepid and Seacat Courageous are at the larger end of the OESV scale, providing them with high capability, without compromising on maneuverability and responsiveness. Both vessels benefit from extensive fuel and cargo-carrying capacity, and operate at a service speed of up to 26 knots.

The proven versatility and reliability of these vessels will be essential in driving the efficiency of crew and equipment transfers, while the technicians' familiarity with the vessels will ensure their safety and enable them to complete their jobs to the best of their ability.

More broadly, the deal between Seacat Services and BOWL provides further evidence of the strength of support delivered by the U.K. maritime supply chain to offshore wind developers and operators.

"Beatrice is our first Scottish project, and we're looking forward to setting a benchmark for future wind farms in the region," said Ian Baylis, managing director, Seacat Services. "In doing so, we'll be aiming to benefit from lessons learned on U.K. projects, further strengthen collaboration and long-term relationships, and support opportunities for the regional economy. We currently have 13 vessels and their crews operating off the east coast of the U.K., and will always look to recruit locally where possible." ↴

Source: Seacat Services

For more information, go to www.seacatservices.co.uk

Trelleborg completes its leg can system portfolio



A skirt pile gripper. (Courtesy: Trelleborg)

Trelleborg's engineered products operation is growing its portfolio of offshore floatover solutions, with a custom designed skirt pile gripper. Add to this its grout seal, diaphragm closure, and grout packer products, and Trelleborg customers can now specify a total sub-structure leg can system from one source.

The skirt pile gripper (SPG) is welded onto the upper section of a platform's jacket skirt pile sleeves and is designed to create a temporary connection between the pile and jacket during the grouting process. With unique biting teeth for increased contact area, Trelleborg's innovative design delivers a firmer grip. This fixing method reduces risks during platform installation, as it guarantees stable working conditions, even in inclement weather.

"Jacket installation of a substructure into the seabed is an operation that requires product reliability and on site expertise," said J.P. Chia, engineering manager for Trelleborg's engineered products operation. "Until the grout between pile and jacket has set and the installation is completed, the SPGs hold the jacket's piles firmly in place to provide temporary retention of the jacket's elevation position during levelling operations and grout setting. By growing our portfolio to offer a total leg can system solution, customers can benefit from streamlined procurement, reliable functionality, and interfacing of the entire system from purchase through to delivery from one solution provider."

Trelleborg's custom-made SPGs can be designed to have a holding capacity of between 500 and 3,000 metric tons and are compatible with all offshore oil and gas and windfarm HVDC jackets. Working at operating pressures of 200 bar and higher according to customer testing requirements, and water depths to 250 meters, Trelleborg's SPGs exceed all relevant client standards and is DNV GL certified.

Trelleborg's SPGs are fully developed and tested in-house at its facility in Singapore. Full scale testing, biting teeth friction testing and pressure holding testing are all carried out and exceed client specified standards to ensure Trelleborg's SPGs perform during the critical grouting process. ↴

Source: Trelleborg

For more information, go to www.trelleborg.com