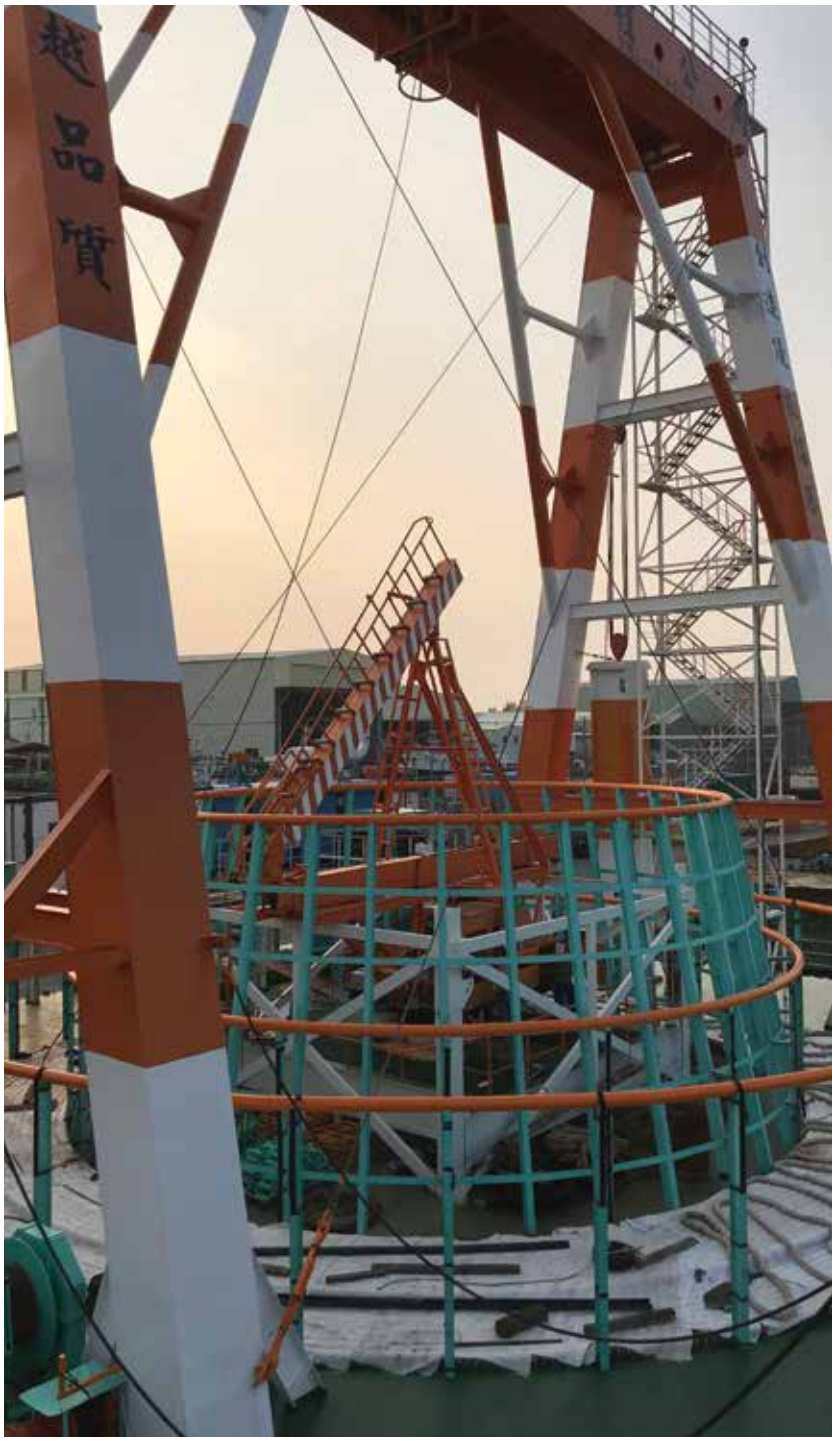
## LOC Renewables signs on to deliver offshore wind cabling expertise in Taiwan

LOC Renewables, through its specialist naval architectural design and engineering team, Longitude Engineering, has been contracted to undertake a month-long feasibility study on behalf of premier Taiwanese subsea cable installer, Woen Jinn Harbor Engineering. The agreement will see the Longitude team assess a cable lay barge for Woen Jinn and advise on the specifications and conversion work required to fit the barge for offshore wind operations.

With significant natural wind resources and excellent conditions for offshore construction, Taiwan is aiming to develop 3GW of offshore wind capacity by 2030. In order to achieve this target, local firms are increasingly looking to work with experienced offshore wind-energy firms and benefit from the transfer of skills and knowledge from more established European markets.

Indeed, late last year LOC Renewables signed a memorandum of understanding (MOU) with four regional partners, outlining its intention to further offshore wind-farm development and construction in Taiwan. This feasibility study will now see Longitude identify the cable lay barge specifications required for Taiwanese offshore wind farms and advise on the upgrades required to meet these.

In addition to better quantifying the scope of conversion work required to prepare Woen Jinn's flagship cable installation barge, the WJ#5, for the offshore wind market, Longitude



**Woen Jinn's flagship cable installation barge, the WJ#5, is being converted for the offshore wind market. (Courtesy: LOC Renewables)**

will provide ongoing support during the barge's operation life. Longitude is also working with Woen Jinn to determine its role as owners' engineer, during the necessary design engineering to convert the cable lay barge to a fit-for-purpose vessel.

"We're proud to be working alongside Woen Jinn on what is a long-term collaboration to enhance their cable-laying capabilities and build out the local supply chain," said Nicolas Cazeres, managing director at Longitude's Singapore office. "We are delighted to have been recognized for our expertise and look forward to adding value and learning from Woen Jinn's operational experience."

"Supported by staff in the U.K., our Chinese-speaking team in Singapore will ensure that the knowledge and experience we have built up in European markets is successfully leveraged and deployed in Taiwan and the surrounding region," he said.

"As the leading cable installation company in Taiwan, we played a key role in the completion of the country's first offshore wind turbine in 2016," said Cheng Yu (Bruce) Lee, director at Woen Jinn Harbor Engineering. "As we plan for the future of offshore wind power in Taiwan, our co-operation with Longitude Engineering in barge design and related verification activities will allow us to continue to deliver a first-class local cable installation service in Taiwan."

As Taiwan's offshore wind sector continues to develop, Longitude and LOC Renewables will bring their end-to-end experience across the project lifecycle to bear on all stages of the evaluation and review of offshore wind farms.

*Source: LOC Renewables*

For more information, go to loc-group.com/renewables

**The Meadow Lake wind farm. (Courtesy: EDP Renewables)**

## Nestlé moves closer to 100% renewable goal

Nestlé in the U.S., in partnership with EDP Renewables, a global leader in the renewable energy sector and one of the world's largest wind energy producers, recently announced a 15-year power purchase agreement that will provide approximately 80 percent of the electricity load for five Nestlé facilities in southeastern Pennsylvania. The agreement is a major step forward for Nestlé's ambition to procure 100 percent of its electricity from renewable sources.

EDP Renewables' Meadow Lake VI wind farm will generate and deliver 50 MW of electricity through the PJM Interconnection grid to manufacturing facilities and distribution centers operated by Nestlé Purina PetCare, Nestlé USA, and Nestlé Waters North America in Allentown and Mechanicsburg, Pennsylvania. Because the wind farm and the recipient facilities are on the same regional grid, the power purchase agreement provides traceability from the Pennsylvania facilities back to the wind farm. With the addition of the energy from the wind farm, 20 percent of the electricity Nestlé uses in the U.S. will come from renewable sources in 2019.

This power purchase agreement is in line with Nestlé's support and advocacy for state policies to ensure companies have access to renewable energy. This renewable energy project will help Nestlé cut energy costs, avoid the volatility of fossil fuel prices, and stay competitive.

"Our partnership with EDP Renewables propels us forward in our ambition to create zero environmental impact by 2030, and is another example of our business transformation journey," said Kevin Petrie, chief supply chain officer at Nestlé USA. "This power purchase agreement perfectly illustrates our creating shared value strategy — that we create value for our business through contributing to a healthier future for the planet."

Through this power purchase agreement, EDPR will expand the

capacity of its Meadow Lake VI wind farm in Benton County, Indiana. The expansion will add 50 MW, enough to power approximately 17,700 homes for one year, to the existing 150 MW EDPR has already secured for the project.

Additionally, the wind farm will bring a number of economic benefits to the state of Indiana in the form of jobs, landowner and tax payments, and money spent in local communities. Construction on the expansion project will begin in the next two months, and the facility will be fully operational at the end of 2018. With the completion of the wind farm, the six-phase Meadow Lake project will total 800 MW.

"This power purchase agreement enables EDP Renewables to further expand our presence in Indiana, the state in which we are the leading producer of wind energy," said João Manso Neto, CEO of EDP Renewables. "EDP Renewables is proud to partner with Nestlé to help in achieving its forward-looking goal of obtaining all of its energy from renewable sources."

### NESTLÉ COMMITMENT

Providing climate change leadership is just one of many societal commitments against which Nestlé transparently reports its progress every year.

Reducing greenhouse gas emissions by becoming more efficient and switching to cleaner fuels, including renewable energy, is a core focus area for the company.

By 2020, Nestlé aims to reduce its global GHG emissions (Scope 1 and 2) per metric ton of product in every product category to achieve an overall global reduction of 35 percent in its manufacturing operations versus a 2010 baseline.

Nestlé has made significant progress toward its environmental sustainability goals in the U.S., as reported in its 2016 Nestlé in the U.S. Creating Shared Value Report.

*Source: EDP Renewables*

For more information, go to www.edpr.com/en or www.edprnorthamerica.com

## Summit recognizes role for wind-farm operations to support a greening grid

Untapped opportunities for Canada's expanding wind-energy industry to enhance grid reliability and add value for consumers in the shift to a low-carbon future were in the spotlight as more than 230 wind-energy professionals attended the Canadian Wind Energy Association's (CanWEA) fourth annual and largest-ever Operations and Maintenance (O&M) Summit in January.

**CanWEA's fourth annual Operations and Maintenance summit featured an expanded exhibition showcasing leading companies in Canada's growing wind energy O&M market. (Courtesy: CanWEA)**

The summit brought owners, operators, manufacturers, and service providers together to discuss operations issues in the world's ninth largest wind-energy fleet, and explore innovative tools and techniques to increase efficiencies, drive down costs, and unlock the technical potential of modern wind power facilities.

With wind-farm operators and turbine technicians active at 295 wind farms across Canada, workforce development and a range of health and safety best practices in areas such as electrical safety, fall arrest equipment, up-tower rescues, confined spaces, and ergonomics were on the summit agenda. Data-driven maintenance strategies, emerging technologies, and service offerings, icing challenges, and repowering opportunities were also key topics discussed by the summit's line up of expert speakers from across North America.

A highlight of the event was the presentation of two new CanWEA awards, recognizing excellence in health and safety and innovative approaches to O&M. Cartier Énergie Éolienne took home the inaugural Health and Safety Excellence Award, while LiftWerx won CanWEA's first O&M Outstanding Achievement Award.

This year's summit also featured an expanded exhibition showcasing leading companies in Canada's

growing wind energy O&M market.

"Electricity markets across Canada are evolving as they adapt to rapid technology change and the increasing emphasis on clean growth, and wind-farm operations need to evolve as well," said Phil McKay, CanWEA's operations and maintenance program director. "The discussion at CanWEA's O&M Summit made it clear that new challenges and opportunities are presenting themselves and our rapidly maturing industry is taking steps to meet them head on. We can contribute to the services grid operators require, in addition to the low-cost, emissions-free energy consumers want."

"Wind energy has been the leading source of new electricity generation in Canada for more than a decade, and today wind energy is the lowest-cost source of non-emitting generation available in Canada," said Robert Hornung, CanWEA president. "As a mainstream player in the power sector, our industry is committed to setting a strong example for effective, efficient and safe operations. CanWEA's 2018 O&M Summit gave operators, manufacturers, and service providers a chance to work collaboratively to meet that goal, by sharing information and expertise, developing solutions to current challenges, and looking ahead to the needs of the electricity grid of the future."

*Source: Canadian Wind Energy Association*

For more information, go to canwea.ca

## Siemens Gamesa to develop offshore supply chain in Taiwan

Siemens Gamesa Renewable Energy intensifies its activities in the preparation for the offshore business in Taiwan. After a first agreement with Taiwan International Ports Corporation (TIPC) in December, the wind-turbine manufacturer has now signed a further Memorandum of Understanding with Yeong Guan Energy Technology Group to collaborate on the development of an offshore wind supply chain in Taiwan.

Under the terms of the non-binding MoU, Yeong Guan Energy Technology Group will be investigating the establishment of a foundry, machining, and painting facilities at the Taichung Harbor in Taiwan.

Siemens Gamesa, drawing on its experience as a leading turbine manufacturer, will provide advice and support with regards to compliance to offshore wind quality and HSE standards, as well as for YGG to become a competitive supplier for offshore wind in Asia Pacific (APAC).

A timeline has not been set for finalization of the cooperation agreement.

"The promising potential of the Taiwanese offshore market combined with our positive experience with the government has encouraged us to intensify our efforts," said Andreas Nauen, CEO Offshore, Siemens Gamesa. "We are convinced that this emerging market offers interesting business opportunities. As one of the world's leaders within the offshore wind industry, we look forward to gaining a foothold in this market."

"The Taichung Harbor is a choice location, close to Changhua County, off of which the majority of the zones defined by the Taiwanese government for offshore wind projects are found," said Rainer Mueller-Wallenborn, head of Offshore Procurement, Siemens Gamesa Renewable Energy, who signed the MoU. "As we stated in December 2017, there are over 10 GW of projects under planning overall in Taiwan according to official information. We therefore believe the Taichung Harbor has the potential to become a regional hub for the industry, and we are very happy to reinforce our commitment to its development with YGG."

In 2017, Siemens Gamesa Renewable Energy signed a MoU with Taiwan International Ports Corporation to investigate possibilities for a potential manufacturing site, office facilities, and staging areas.

Siemens Gamesa also installed Taiwan's first offshore wind-power plant, the 8 MW Formosa Phase 1 demonstration project, back in 2016.

*Source: Siemens Gamesa*

For more information, go to www.siemensgamesa.com