



### FOR IMMEDIATE RELEASE

# Jan De Nul and Hitachi Win a Contract for 21 5.2MW Wind Turbines for Taiwan Power's Changhua Offshore Wind Farm Project

Taipei, April, 30 2018 – Jan De Nul Group and Hitachi, Ltd. (TSE:6501) today announced that they have signed the contract with overall work for the manufacturing and installation of 21 5.2MW wind turbines (109.2MW) for the Changhua Offshore Wind Farm Project, which Taiwan Power Company plans to construct off the coast of Fangyuan in Changhua County in Central Western Taiwan. The work includes manufacturing and installation of all equipment as well as maintenance for a period of five years. The overall project has a value of 25 billion New Taiwan Dollar (approx. 800 million USD), of which two-thirds (2/3) of the amount is for Jan De Nul and the remaining one-third (1/3) is for Hitachi.

Under the Changhua Offshore Wind Farm Project Jan De Nul will be responsible for the foundation design, fabrication and installation, wind turbine installation, supply and installation of cables off- and onshore as well as for the upgrading of the sub station. Hitachi will be in charge of manufacturing, assembly, operation and maintenance (O&M), and other work related to the 21 offshore wind turbines with downwind rotor, each with a generation capacity of 5.2MW. Particular feature of the design is that the foundations are designed to withstand cyclonic waves and winds, and earthquake loads.

Seabed survey and geotechnical investigation will start in May 2018. Manufacturing of the wind turbines is planned mainly during 2019 in order to deliver them in early 2020. Test operation of the equipment is targeted to start in the summer of 2020, and the completion is scheduled for the end of December of the same year.

### Promotion of wind power generation in Taiwan

Taiwan has announced a four-year plan for the promotion of wind power generation, which is aimed at accelerating the introduction of renewable energy. A goal under this plan is to introduce offshore wind power facilities with a cumulative total generation capacity of 5.5GW. In response, Taiwan Power Company plans to increase the generation capacity of its offshore wind power generation facilities. Specifically, TPC aims to achieve 1GW by 2025 and 1.8GW by 2030. TPC has been advancing the construction plan in the open sea off the coast of Changhua, believed to be the

location with the greatest wind power in Taiwan.

# The winning consortium's strength

Jan De Nul Group, who will be the leader of the Consortium, is a world-class marine construction company, having a yearly turnover of approximately 2 billion USD. Its main business is marine construction related to undersea cables, gas and oil supply lines, offshore wind farms, and other facilities. The renewable energy industry is an important business for this company. Owning wind turbine installation and cable laying vessels, the company boasts an extensive track record and experience in EPC, including installation of offshore wind farms and laying of undersea cables.

Hitachi boasts a lineup of 5MW-, 2.5MW-, and 2MW-class wind turbines and has established a system that allows it to handle all processes from development to design, manufacturing, sales, and maintenance of the turbines. The company boasts the largest share with the base of the wind turbines, which did a startup in 2016 in Japan. Among the cumulative total of 324 units for which it has received orders, 184 turbines are being operated commercially\*1. Hitachi is aiming to contribute to other Asian regions such as Taiwan, Southeast Asia in terms of creation of a low-carbon society through superior wind power generation systems.

The Changhua Offshore Wind Farm Project will be constructed in a region known to be very sensitive to typhoons. The consortium submitted its design with the Hitachi's proprietary wind turbine with downwind rotor. These turbines feature a downwind configuration, which reduces wind loading by keeping the rotor oriented in such a way that it is not subjected to crosswinds, even during shutdown due to strong gusts. Hitachi has obtained the "Wind Turbine Class T" certification (Class T certification)\*2 - an international standard on wind-resistant design reflecting consideration for regions subject to frequent typhoons - ahead of other wind turbine manufactures in the world.

Jan De Nul and Hitachi will contribute to expanding renewable energy in Taiwan by combining the expertise of Jan De Nul in marine construction, which the company has developed by being involved in projects all over the world, with the high-quality maintenance technologies and expertise related to wind turbines that Hitachi has cultivated in the Japanese market.

<sup>\*1:</sup> As of March 31, 2018

<sup>\*2:</sup> Hitachi received Class T certification from Class NK at April 2017.

## **About Jan De Nul Group**

Jan De Nul Group, headquartered in Luxembourg, is a world-class marine construction company. Innovation, expertise and sustainability: these are the driving forces supporting Jan De Nul Group's success. Thanks to the committed employees and tailored solutions, Jan De Nul is the current market leader in dredging and maritime works as well as a specialized provider of services for the offshore energy markets. The Group is also a major player in civil engineering, environmental and brownfield development projects. Jan De Nul's professional and innovative solutions are trusted across the industry. Whether it concerns the design and installation of offshore wind turbines, port extension works or the redevelopment of industrial sites, together with its clients Jan De Nul Group builds for future economic development in a responsible way.

## About Hitachi, Ltd.

Hitachi, Ltd. (TSE: 6501), headquartered in Tokyo, Japan, delivers innovations that answer society's challenges, combining its operational technology, information technology, and products/systems. The company's consolidated revenues for fiscal 2017 (ended March 31, 2018) totaled 9,368.6 billion yen (\$88.4 billion). The Hitachi Group is an innovation partner for the IoT era, and it has approximately 307,000 employees worldwide. Through collaborative creation with customers, Hitachi is deploying Social Innovation Business using digital technologies in a broad range of sectors, including Power/Energy, Industry/Distribution/Water, Urban Development, and Finance/Social Infrastructure/Healthcare. For more information on Hitachi, please visit the company's website at http://www.hitachi.com.

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