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Photo courtesy of HSM Offshore

Early Involvement Pays Off

FOR HSM OFFSHORE

AS EARLY AS 2002, THE DUTCH COMPANY HSM OFFSHORE SUCCESSFULLY DELIVERED THE VERY FIRST OFFSHORE HIGH VOLTAGE SUBSTATION (OHVS) FOR THE DANISH HORNS REV A OFFSHORE WIND PROJECT UNDER A CONTRACT awarded by Eltra, the predecessor of the Danish Grid Development company Energinet.dk. The project was executed on a full turnkey basis covering engineering, procurement, construction and installation (EPCI contract). Since this first project, a broad range of substations for the offshore wind industry have been successfully completed.

The rapid growth and technical progress of the offshore wind energy sector is also reflected in the capacity and size of the substations. For the next two phases of the Horns Rev Offshore Wind Farm, the company was again selected to provide the OHVS. Whereas Horns Rev A featured a 160MW transformer capacity and 1,000MT deck weight, this increased to 250MW / 1,300MT for Horns Rev B and to 400MW / 1,800MT for the recently delivered Horns Rev C OHVS. A 325MW / 2,200MT OHVS was delivered for the Belgian Thornton Bank phase 3 project in 2012.

Significant Workload

Recently, the fabrication of an even larger OHVS was granted for the DONG Energy Borkum Riffgrund 2 project, featuring a transformer capacity of 450MW, a deck weight of 2,500MT and a 1,800MT jacket (support structure). This is strategically a very important award. It is the first project for DONG Energy (the largest developer of offshore wind projects), as well as being the first OHVS for the German sector, one of the areas with the highest growth in offshore wind capacity. Delivery of this project is

scheduled for early 2018 and provides a significant workload. Another project for the offshore wind sector carried out in the Schiedam premises was a 1,050MT jacket for the E.On Rampion offshore wind project, situated off the Sussex coast in UK waters. Sailaway took place in September of this year.

Key Strength

Throughout the years, the execution of projects on a turnkey EPCI contract basis has become a key strength of HSM Offshore, both in the upstream offshore oil and gas market and in the offshore renewables market. An excellent example is the Petrogas E&P Netherlands A 18 project, situated in the most northern section of the Dutch North Sea at a water depth of 44m, for which the company provided a gas production platform consisting of a 950MT deck and a 1250MT jacket. They subcontracted the Seaway heavy lift crane vessel Oleg Strashnov to install both the deck and jacket. Immediately after the granting of the contract in May 2014, Iv Oil & Gas was contracted for detailed engineering and procurement support. >>

Load-out of 1,050MT jacket for the E.On Rampion offshore wind project early September.





Load-out of Shell Leman Uptime compression platform at HSM yard.

This was followed by the full procurement, fabrication, assembly, commissioning and load-out in August 2015. In the same period, another large project was completed, covering the fabrication and delivery of the RepsolSinopec Resources UK Flyndre & Cawdor process modules, weighing an impressive 1,800MT. Following sailaway from the deep-water quayside, the modules were installed on the Clyde platform, situated in the UK North Sea. Until now, the largest platform built by HSM Offshore was delivered during the summer of 2014. It concerned a new compression platform for Shell UK, which ensures the maximum recovery of gas within the Leman and adjacent fields in the southern UK North Sea. The complete scope of the assignment included the platform topside (deck) weighing almost 4,000MT, the jacket, piles and connecting bridge, altogether representing an overall weight of 5,300 MT. It also comprised large diameter high-pressure piping, a high and a low-pressure compression unit driven by high-capacity gas-fired turbines.

Excellent HSE Record

HSM Offshore's premises are situated within the Rotterdam port area, featuring a deep-water quayside and 270m jetty with an open connection to the North Sea, with no bridges or locks en route. Construction and assembly of the decks and modules is carried out exclusively inside large fully climate-controlled halls, thus ensuring quality and full control over delivery. Large dry docks, heavy lift and transport capacity are readily available in the area; the same applies to subcontractors, certified welders and international shipping capacity. Parent company ANDUS Group is financially strong with the capability to provide investments as required to allow for their continued development. Furthermore, ample fabrication resources and manpower are available from several affiliated companies within this group. Most importantly, HSM Offshore boasts an excellent HSE record and ISO 14001 certification, whilst their quality management carries ISO 9001 certification.

i. www.hsm.nl



Installation of A18 satellite platform for Petrogas E&P Netherlands.



Offshore high voltage substation at Horns Rev C offshore wind farm.