

STEERING THE RENEWABLE ENERGY FUTURE

Rob Shaul, Senior Vice President of Low Carbon Solutions at McDermott International, elaborates on the company's recent contract awards as well as its strategic alignment with global energy transition goals



[From left to right] Roberto Cecchini, Project Director at McDermott, Valentin Fontana, Project Director at TenneT, and Kun XIAO, Project Director at GEIRI/C-EPRI at the BorWin6 steel cut ceremony held at McDermott's Jebel Ali Fabrication Yard in Dubai, UAE

Earlier this year, the engineering and construction firm McDermott initiated the monumental BorWin6 980MW high-voltage direct current (HVDC) project for TenneT. The company's scope of work encompasses engineering, procurement, construction,

installation, and commissioning (EPCIC) services for the HVDC converter platform located offshore Germany. This endeavour marks McDermott's entry into the offshore wind market and stands as a testament to its strategic alignment with global energy transition goals, highlighting its crucial role

in the evolving energy landscape.

To delve deeper into the complex aspects of the project and shed light on McDermott's broader vision in the renewable energy sector, *Oil & Gas Middle East* sat down with McDermott's Senior Vice President of Low Carbon Solutions Rob Shaul. With

a legacy of over 30 years in overseeing all facets of onshore project execution, Shaul is experienced in sectors spanning from gas-to-liquids and LNG to high-speed railways. Currently, he spearheads the company's low-carbon projects, including integrating emission-reduction methods into traditional energy infrastructure like eLNG.

Can you detail the scope of McDermott's work for the BorWin6 980MW HVDC project's offshore converter platform?

Through a consortium with GEIRI/C-EPRI, McDermott is providing EPCIC services. Specifically, on the HVDC offshore platform, our scope includes the engineering, procurement (of auxiliary systems), fabrication, transport and installation, hook-up and commissioning of the topside module and jacket. McDermott is also responsible for the engineering, procurement (of auxiliary systems), and construction of the associated land station.

At the time of the award, this was our largest-ever renewable energy project! It also signified our expansion into the thriving offshore wind market and strengthened our global ambitions in the renewables sector.

Back in July, we held a first steel-cutting ceremony for the project at our fabrication yard in Dubai to mark the successful delivery of engineering and commencement of construction. During this next phase, we will leverage our strategically located fabrication yards in Dubai and Indonesia, which are both unrivalled in their ability to deliver complex offshore structures and boast industry-leading safety records.

How does McDermott's recent 2GW HVDC EPCIC contract with TenneT align with its energy transition goals and offshore wind market expansion?

A few years ago, McDermott identified five key target areas for energy transition (ET). This included low-carbon hydrogen and its derivatives, CCUS, offshore wind, low-carbon fuels and low-carbon solutions, such as LNG. The targeted markets were identified as adjacent markets, where McDermott can bring its experience and know-how to serve our existing and new customers and meet their ET-related goals.

BorWin6 and the recent 2GW HVDC project



Rob Shaul, Senior Vice President of Low Carbon Solutions at McDermott International

are excellent examples of this adjacency. We are simply applying our extensive offshore oil and gas capabilities to this market. The offshore wind market is expected to continue to grow, and we are looking to include HVDC as part of our project portfolio in the coming years.

Please elaborate on your new Low Carbon Solutions business line. How does the business aim to expand through this vertical, and what kind of projects will you target?

We took the decision to rename the Onshore business line as Low Carbon Solutions to support our business strategy, differentiators, and market position. We believe this accurately reflects our current and future business while recognising that petrochemicals and the traditional oil and gas business remain at our core, especially in the Middle East and subsea operations.

We plan to leverage McDermott's core expertise in delivering offshore and onshore facilities. HVDC projects have many features in common with typical offshore oil and gas platforms. Similarly, sustainable aviation fuel (SAF) projects are complex onshore process plants similar to downstream and petrochemical facilities that McDermott has been successfully delivering for decades.

I must reinforce that we remain fully committed to delivering projects for our customers as we continue to elevate our ET offering.

How will McDermott's new business line keep its commitment to energy transition, and how will the company leverage its expertise to deliver innovative solutions that support the development of renewable energy, carbon capture, or other low-carbon technologies?

We are committed to innovating and creating new solutions to drive the energy transition, improve environmental performance, support decarbonisation and the continuity of energy supply. These capabilities, combined with our low-emissions EPCI delivery, modularisation know-how, global asset base, and over a century of engineering and direct construction experience, make McDermott the flexible end-to-end solutions partner for lower emissions in hard-to-abate sectors.

CCUS is a vital tool in recognising climate-change limiting pathways. Our strategy focuses on both point-source CO2 capture from large-scale combustion equipment, as well as capturing CO2 from the atmosphere, known as direct air capture. We support customers through carbon capture technology evaluations and have developed expertise in optimising and integrating these technologies into larger developments.

Our hydrogen strategy focuses on green hydrogen produced by electrolysis using renewable energy, and blue hydrogen produced from natural gas with carbon capture and storage. We have partnerships with developers of proton exchange membrane and alkaline electrolysis technologies, and with methane reforming licensors to optimally scale facility sizes.

We are also leveraging our unique LNG and modularisation expertise to develop innovative solutions in providing multiple pathways to achieve low-carbon brownfield and greenfield LNG facilities. Our concepts focus on eliminating emissions throughout the lifecycle of an LNG facility via design efficiencies, carbon capture and sequestration, e-drive, SMART modularisation and construction, and elimination of operational flaring. We believe up to 95% of operational emissions and 65% of emissions associated with construction can be eliminated. ○