

Commercial Presentation Theatre & Process Equipment Zone (Hall 1)

Day: 23rd May
Time: 16,30 - 17,20

SAIPEM

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Saipem solutions and technologies for low and free carbon energy

Over the 60+ years of its history, Saipem has been sitting beside its Clients and Partners in front of all the challenges of the Energy Industry. The journey is now becoming more exciting than ever and Saipem is fully engaged to support its clients' ambition to reach sustainable energy goals: affordable, available and clean energy sources.

Two outstanding examples of how Saipem is deploying all those ingredients in its products are represented by the technologies being developed for a) the Floating Wind and b) the Carbon Capture markets.

In the Floating Wind market, Saipem is developing solutions able to unlock wind resources in all the ranges of water depth and adaptable to different situations of local industry and infrastructure development, as well as fit for applications related to decarbonization of Offshore Oil & Gas assets, guaranteeing effective hybridization strategies.

Through its proprietary foundation designs, Saipem is pursuing the following specific objectives: optimum behavior of the foundations under the conditions expected during the whole life, CAPEX and OPEX optimization, plant availability. The three objectives are all necessary to provide Clients with a solution that has a sustainably low overall cost of energy produced.

Saipem Star1 foundation characteristics aspire to the above objectives. The dynamic behavior is optimized to be safely within the limits required by turbines and cables linked to it, with reasonable mooring loads. The design process implemented has brought the weight of foundation to the lower range achievable with semisub technologies. In addition, Saipem has developed and optimized the fabrication methods to allow for an easier industrialization of the product, by making it compatible with a wide range of fabrication lines, and suitable to be assembled in locations that don't require uncommon characteristics in terms of space, handling equipment or draft. Finally, Saipem STAR1 is conceived to safely accommodate a wide range of services to optimize life of the projects including innovative marine operation



devices to perform the heavy maintenance, advanced unmanned robotics drones, digitalization tools and devices for remote monitoring and inspection.

In the Carbon Capture market, Saipem is active since decades, addressing pre and post combustions carbon capture through the implementation of various licensed processes. However, emerging environmental issues require more sustainable carbon capture process technologies, which should also yield low-cost, low-complexity operations, effectively solving contemporary issues

Saipem offers its proprietary revolutionary catalyzed carbon capture technology, CO2 Solutions by SAIPEM, that uses a non-toxic, non-volatile solvent catalyzed by enzymes.

Contrary to conventional carbon-capture technologies, the process neither requires nor produces toxic products. It is clean and harmless to human health and the environment, with fast absorption kinetics. Its low-temperature regeneration allows the use of residual heat to drive the capture and reduce opex. The patented process, demonstrated at an industrial scale, is targeting industrial operators who need environmentally sound solutions to reduce carbon emissions and meet their ESG objectives.

Moreover, thanks to its wide expertise as EPC contractor, SAIPEM developed BLUENZYME, an industrialized modularized product consisting in a pre-engineered solution based on the application of its Capture Technology.

BLUENZYME is a ready-made product, relying on a competitive schedule and a dedicated supply chain, a tangible solution hitting the market to accelerate the path towards net-zero target.