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Unshackling Africa's gas reserves with offshore ops to slot in floating LNG unit

BUSINESS DEVELOPMENTS & PROJECTS

March 12, 2025, by Melisa Cavcic

The stage has been set to embark on offshore activities to put a mooring system for a floating liquefied natural gas (FLNG) unit in place off the coast of Congo, Africa. France's marine contractor GEOCEAN is tasked with the transport and installation of this mooring system for Eni's second FLNG unit on the Marine XII block, which is set to enhance the African country's energy sector by producing LNG for domestic and export needs.



FLNG mooring job for Eni's Congo LNG project; Source: GEOCEAN

Wison New Energies picked **GEOCEAN** to handle the FLNG mooring system job for Eni's Congo LNG project located at a depth of 33 meters of Pointe-Noire (Congo) to exploit the gas reserves in the Marine XII block with the aim of producing low-carbon-footprint LNG.

The assignment entails installing a submerged swivel and yoke system (SSY) anchored via three drilled piles and one flexible riser, connecting the SSY to the FLNG around 50 km from Pointe Noire. With a production capacity of 2.4 million metric tons of gas per year, the unit can store 180,000 metric tons of LNG and 45,000 metric tons of LPG.

Project & Tenders

Eni's Congo LNG project is envisioned to unlock the gas resources of the Marine XII project with the installation of two FLNG units at the Nenè and Litchendjili fields. This project is designed to have an overall LNG production capacity of 3 million tons per year, or approximately 4.5 billion cubic meters per year, from 2025.

While Congo entered the LNG exporters' club in February 2024, after its first FLNG unit, known as Tango with 0.6 million tons per annum (mtpa) capacity, began its LNG deliveries, the second unit, under construction, is slated to be in operation by the end of 2025.

To make this happen, GEOCEAN has set the course for the Marine XII project, kicking off offshore operations to install the FLNG mooring system, with the jack-up barge (JUB) mobilization phase now complete.

Equipped to carry out on-site operations, the JUB has left the port of Pointe-Noire for the project site, which is 50 km away, setting off three key stages, including the installation of a template and casing to prepare for drilling operations; the start of work to install the first anchor piles; and coordination and mobilization of teams to ensure the success of the

project.





FLNG mooring job for Eni'S Congo LNG project; Source: GEOCEAN

The launch of operations for the Marine XII project in the Congo comes after the jack-up barge La Sianna (JUB) arrived at the project site, 50 kilometers off the coast of Pointe Noire. This vessel is believed to be now fully operational to complete all the project stages. Simultaneously, a platform supply vessel (PSV)) has also been mobilized to transport the most extensive supplies to the site, with offshore operations now underway.

GEOCEAN elaborated: "Over the past few weeks, we have mobilised and assembled all the necessary equipment at the port of Pointe-Noire. The drilling and cementing units have been prepared and assembled on site, thus guaranteeing a reliable and ready-to-use configuration.

"The diving spread, including a decompression chamber, a control cabin, and two diving lifts (LARS), is already mobilised on board the barge, and the ROV is responsible for underwater inspection. Safety and quality control protocols have also checked and loaded the piles and vibro hammer vibration equipment required for installation of the piles."

Once the JUB and the PSV got positioned offshore, the French firm claims that the teams began installing the drilling template and the casing, two fundamental operations before drilling could begin. This configuration is perceived to allow the first anchor pile to be installed in optimal conditions.

The logistical support provided by the PSV is seen as crucial, as it is understood to have a key role in delivering integrated components and installation aids while also serving as an assistance platform for the teams, facilitating the transit of people and goods between the land base and the area of operation.

Given the progress made so far, all things are deemed to be ready to launch the first drilling phase and install the first pile. This stage represents the core of our project, as it will determine the last structure's solidity, reliability, and position.



PSV for Eni's Congo LNG; Source: GEOCEAN

Before installing the anchor piles, a template will be positioned to ensure precision and define the exact drilling location, as drilling operations are said to require millimetric precision and in-depth knowledge of the site's geological characteristics and marine constraints.

While explaining that this will be the first major underwater operation, GEOCEAN underlined: "Thanks to the cooperation of our various teams – engineers, technicians, divers and logisticians – we are in the best position to carry out these offshore operations. With mobilisation and equipment assembly completed, drilling has begun, and the three piles are installed before the base structure is finalised.

"At the same time, we remain attentive to the quality of our operations, the safety of our teams, and the protection of the marine environment. This new phase marks a decisive stage in the project's realisation, the success of which will depend on the rigour of our teams and the efficiency of the resources deployed."

The first shipyard in Nantong was nearly done with the hull last year, but the second shipyard in Zhoushan said the topside modules would not be ready before September 2025. The progress came after Wison New Energies disclosed plans to exit all Russian projects in the wake of the raft of sanctions the U.S. disclosed for companies fueling Russia's energy sector boom and the European Union's 14th package of sanctions against the country.

The Chinese player later on won a \$1 billion contract with Malaysia's Genting to construct an FLNG, which would be the first such unit in Indonesia and the ninth one worldwide. This is Wison's third contract to build FLNG facilities, following deals with Exmar and Eni. Recently, Eni selected Hilong Group's Hilong Offshore Engineering to handle the second phase of the offshore transportation and installation works for its LNG project off the coast of Congo.