










CALM BUOY TRACK RECORD

CLIENT	PROJECT		COUNTRY	WATERDEPTH	DESCRIPTION OF PROJECT	TYPE	YEAR
NOVA-X	G1 FSO CALM BUOY		Thailand	60 m	1. Analysis of the riser system Installation 2. Detailed drawings of the riser system installation 3. Technical support for Offshore Installation 4. Technical support for the riser design 5. Design & Review of engineering documents and Procedures		2024
YOKOHAMA RUBBER CO.	Balongang Field		Indonesia	15 m	1. Static & Dynamic Analysis of subsea hoses with CALM Buoy 2. Dynamic analysis of hoses in 100-10-1 yr. storms		2024
YOKOHAMA RUBBER CO.	Widuri terminal		Indonesia	25 m	1. Static & Dynamic analysis of subsea hoses with FSO 2. Static & Dynamic Analysis of subsea hoses with CALM Buoy 3. Dynamic analysis of hoses in 100-10-1 yr. storms		2024
YOKOHAMA	Pertamina CALM Buoy		Indonesia	25 m	1. Static & Dynamic Analysis of subsea hoses 2. Dynamic analysis of hoses in 100-10-1 yr. storms		2023
YOKOHAMA RUBBER CO	CALM Buoy Hoses		Japan	100 m	1. CALM Buoy system hose design 2. Complete Subsea Hose static & dynamic analysis and design 3. Subsea design of hose and ancillary equipment, buoys etc.		2022
YOKOHAMA RUBBER CO	CALM Buoy Hoses		Indonesia	50 m	1. CALM Buoy system hose design 2. Subsea Hose static analysis		2021
YOKOHAMA RUBBER CO	CALM Buoy Hoses		Japan	100 m	1. CALM Buoy system hose design 2. Complete Subsea Hose dynamic analysis and design 3. Complete floating Hose analysis		2020
NOC / TUFF	FSO & CALM Buoy		Qatar	70 m	1. FEED STUDY level 2&3 for the mooring systems and vessel conversion requirements for FSO and CALM Buoy system 2. Chain stoppers and mooring system, specifications, RFQ 3. Structural design and engineering for reinforcements on vessel 4. Naval Architecture for conversion 5. Mooring analysis 6. Mooring Fatigue analysis 7. Mooring system design		2019
							

Offshore Installation

 Supply of Chain,
 Connectors etc. /
 Equipment






 Detailed Design &
 Engineering / FEED

Offshore renewables

 Expert Witness - 3rd Party
 Independent Review

Decommissioning

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NOC / TUFF	FSO & CALM Buoy		Qatar	70 m	1. FEED STUDY for mooring systems options 2. Technical commercial review of solutions 3. Design of mooring system, mooring analysis		2020
YOKOHAMA RUBBER COMP.	MVS		Vietnam	90 m	1. Dynamic analysis of offloading hose when free floating behind FPSO 2. Dynamic analysis of offloading hose when looped back behind FPSO 3. Dynamic analysis of offloading hose when used in Tandem FPSO – Shuttle tanker 4. Loads from floating hose on full system.		2020
NOC	FSO & CALM Buoy		Qatar	70 m	1. FEED level 1 STUDY for the mooring systems and vessel conversion requirements 2. Chain stoppers and mooring system 3. Thruster and their requirements and analysis 4. Structural reinforcements on vessel 5. Naval Architecture for conversion		2019
AMANIAGA	CALM Buoy	 AMANIAGA	Malaysia	30 m	1. Detailed Mooring Analysis, including Fatigue for CALM Buoy 2. Review of requirements for upgrade of buoy. 3. Procedures for installation		2019
AMANIAGA	CALM Buoy	 AMANIAGA	Malaysia	30 m	1. Inspection of CALM Buoy prior to removal 2. Engineering, stability, and dynamic analysis for Calm Buoy removal and Tow out. 3. Decommissioning procedures 4. Support personnel for the preparation of the Tow out 5. Tow-out and delivery to quay side.		2019

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PTTEP	FSO-2		Thailand	80 m	<ol style="list-style-type: none"> 1. Review of the different alternatives for the condensate production without an FSO 2. Review of production platform requirements 3. Design and engineering of SPM CALM Buoy system 4. Subsea flow assurance of the production from the different fields 		2014
PTTEP	FSO-2		Thailand	80 m	<ol style="list-style-type: none"> 1. Offshore measurement and review of vessel status 2. OPEX and CAPEX estimation of the life extension 3. Developing different alternatives with respect to the possible scenarios for life extension 		2013 - 2014

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