

KBR in Nigeria

Managing cost, schedule and local requirements



KBR

Delivering Technically-Advanced, Reliable Facilities

Energy companies rely on our EPC services to construct and deliver some of the world's largest oil and gas projects such as Nigeria's major LNG trains and the country's first GTL facility. Mitigating risk early on, assembling the right team to meet production targets and local requirements is why companies repeatedly turn to KBR for their refining, ammonia, onshore, offshore, gas production, processing facilities and feasibility studies.

Constructing the Largest LNG Trains in the World

The Energy Information Administration ranks Nigeria as the seventh largest natural gas reserves holder in the world. Our ability to respond to the increasing global demand for LNG and our customer requirements is evident by our ongoing presence in Nigeria for more than 20 years, resulting in the design and construction of six LNG trains totaling 22 million tpy, and the FEED of a seventh and eighth. Once completed, Trains 7 and 8 will be the largest capacity LNG trains in the world.



Leading the GTL Market

We have established ourselves as leaders in the GTL market as we are involved in two of the three ongoing GTL projects around the world, namely the Escravos project in Nigeria and the Pearl project in Qatar. In Escravos, KBR along with our JV partner are delivering EPC services for Chevron Nigeria Limited. The Escravos facility will use a leading application of GTL technology, and will provide significant environmental benefits by converting natural gas to produce ultra clean GTL diesel. The plant will have an output capacity of 34,000 barrels per day of GTL diesel, naphtha and liquefied petroleum gas for export. The completion of the Escravos plant will add Nigeria to the list of countries leading the industry in implementation of GTL production facilities.

Largest FPSO in the World: Agbami

Confidence in engineering and execution abilities led Star Deep Water Petroleum Limited, a Chevron affiliate, to enlist KBR when needing topsides for the world's largest FPSO, Agbami, located offshore Nigeria. The Agbami field ranks among the largest single finds in deepwater West Africa and is one of the world's ten largest discoveries of the past decade. Using Stage Methodology and other tools to manage the project, KBR engineers designed 13 topside modules containing the FPSO's main process and utility systems. The project team designed Agbami to deliver 250,000 barrels of oil per day (bopd), 450 million square cubic feet of gas (scfg) and 450,000 barrels of water per day (bowd). With a storage capacity of roughly 2.2 million barrels of oil, the operator moored the vessel in a water depth of about 4,800 feet offshore Nigeria.



Record Firsts in Size and Schedule: Shell EA

When Shell Petroleum Development Company of Nigeria needed fast-track engineering, procurement, integration and construction (EPIC) of one of the largest new-build FPSO vessels, the Sea Eagle, they turned to KBR. Located offshore Nigeria in 26 meters of water, KBR met an aggressive, demanding schedule for the Sea Eagle with 20 months from start of topsides fabrication and hull to sailaway. Besides achieving an excellent safety record and becoming the first oil and gas facility commissioned by SPDC, Shell described the interface integration and management as 'Best in Class.' The project team delivered the FPSO topsides and mooring system one month ahead of schedule, including first receipt of oil.

Lower Energy Consumption with KBR Ammonia Technology

With more than 60 years experience in licensing, designing, engineering and/or constructing of over 200 ammonia plants worldwide, operators seek out our expertise when needing a greenfield site or a revamp to increase plant capacity, to reduce the energy consumption, to reduce maintenance, to meet more stringent environmental standards, or a combination of these goals. Besides their competitive cost, operators of ammonia plants using KBR technology also report lower energy consumption, safer operation and superior onstream time. For example, KBR built NAFCON, the first and largest modern fertilizer complex in Nigeria that the industry recognized as the best chemical process plant worldwide based on capacity utilization in 1992.

Saving Money with Optimal Refining Solutions

Soaring feedstock costs and the abundance of heavy crudes are forcing refiners to invest in margin-squeezing conversion capabilities to remain competitive. Energy companies who want solutions that lower costs and accelerate ROI turn to KBR. With over a half a century of experience in petroleum refining, our experts offer solutions for heavy, low-value hydrocarbons to help you squeeze the most value from every barrel. Recognized as a pioneer in fluid catalytic cracking (FCC) technology, KBR has designed more than a dozen FCC units and revamped more than 160 FCC units worldwide since 1990. Two of our world-class FCC plants are located in Nigeria, one in Kaduna and one in Warri.

Managing Execution Risks

Overseeing risk on your multi-billion dollar project while adhering to fast-tracked timetables, environmental compliance and tight capital budgets is our first priority. Averting risk during FEED, detailed design, construction and commissioning is an area KBR is well equipped for, after leading numerous projects in Nigeria, including ongoing EPC work for the country's major LNG projects and its first GTL facility. Receiving multiple HSE awards for our performance and improvement on Bonny Island – projects that spans over 12 years and 200 million hours – further demonstrates our longstanding commitment to Nigeria. Upon completion in May 2008, NLNG Train 6 earned an outstanding HSE record, achieving 13.5 million work hours without a lost time incident.

Reduce Cost. Maintain Schedule. Safeguard Lives.

Experience delivering revenue streams quickly following construction of complex facilities in harsh, remote environments is a benefit that KBR brings to every project. Mitigating risk on your multi-billion dollar projects is how we help customers around the world derive the greatest value from their assets.



Matching expertise to expectations while meeting the toughest deadlines makes KBR the preferred contractor.



Our experts offer engineering services in conceptual design, front end engineering and design (FEED) and detailed design engineering (DDE) for onshore, offshore, LNG CNG, GTL and process facilities.



To learn more, visit: kbr.com or e-mail kbr@kbr.com

Depending on the magnitude of your project, we can execute alone or in a joint venture.

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