

KBR CONSTRUCTING NIGERIA AND BEYOND

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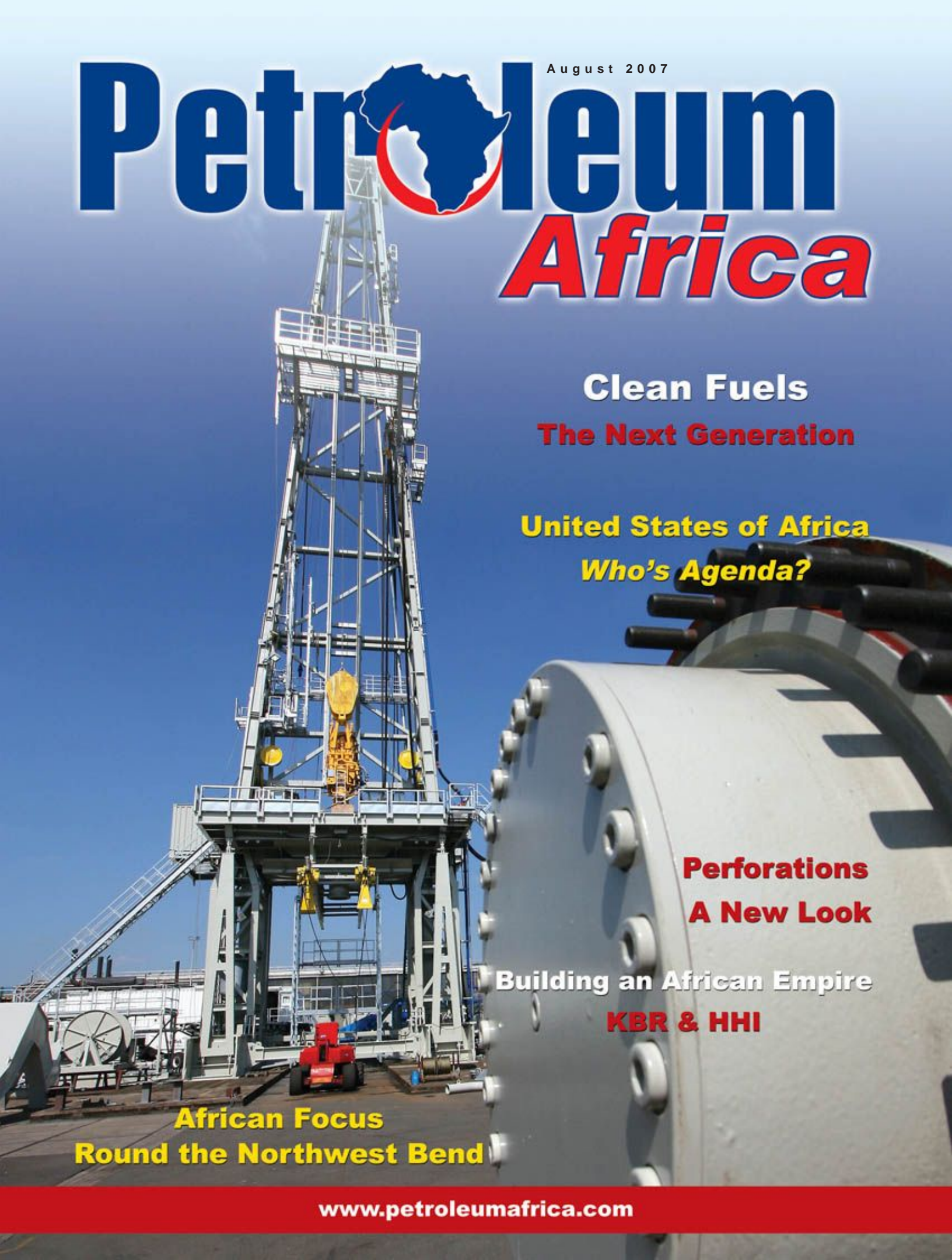
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African Focus
Round the Northwest Bend

By Sarah Tarek
Executive Editor

KBR

Constructing Nigeria and Beyond

Petroleum Africa met up with KBR's Arturo Aranda, Vice President of Project Management – Africa to discuss some of the challenges and trends in construction and engineering for the oil and gas industry, and to gain further insights into KBR's Africa activity.

What does KBR feel are the main challenges facing construction & engineering contractors (EPC) in the energy and power industries today, worldwide and Africa specific?

Multiple mega-projects in progress concurrently around the world are causing shortages and stiff competition for construction labor resources. In addition to this, tight market conditions for equipment and material supply, resulting in extended deliveries, price escalation, and in cases of some critical equipment, non-availability to meet the project schedule.

The sheer enormity of projects being undertaken today means that no single owner company sanctions these projects, and no single contractor company executes them. We have to be savvy in how we execute work in partnership with other contractors while making the profit margins and revenues that satisfy our shareholders. In project execution, we must be prepared to satisfy multiple owners, each with their own drivers and business goals, which sometimes are not aligned. This makes it a challenging marketplace.

With specific reference to Africa, the increasingly stringent requirements on local content being imposed by governments and the NOCs is a real challenge to us in terms of how we can work efficiently and cost-effectively to meet the project goals and satisfy these requirements at the same time.

What gives KBR a competitive advantage? What are KBR's key strengths?

KBR's competitive advantage comes from many of our company strengths. Our strong global presence and execution capabilities define our overall mission to safely deliver any project, any time,

and in any environment for the benefit of our customers, shareholders, employees, and the communities we serve. In addition to this, KBR has a depth of expertise and project experience in all market segments of the oil and gas industry, including LNG, GTL, oil and gas production, refining, petrochemicals, ammonia, and coal gasification.

Our industry-leading safety performance and our understanding and experience in addressing sustainability issues hit the target with our clients for whom this is a top priority.

Our ability to assist clients in taking technologies in development to commercial reality through the knowledge of our technology experts and our R&D capabilities at the KBR Technology Center is second to none. In fact, we are one of the few EPC companies that have a dedicated center for technology development.

Our own proprietary technologies, many of them developed at the KBR Technology Center, have superior performance to many competing technologies in a number of respects and benefit our clients through high reliability and cost-effectiveness.

KBR is also differentiated in its ability to execute complex, state-of-the-art projects in difficult locations, and has repeatedly proven this capability in Africa and around the world.

What HSE measures does KBR have in place? Can you give us some examples of such measures applied at your Africa operations?

KBR's Quality, Health, Safety, and Environment (QHSE) policy defines our commitment to protect the health and safety of our



All images courtesy of KBR

SEGAS - KBR's record-setting SEGAS project, located in Egypt, achieved one of the shortest project development schedules for a grassroots LNG facility.

employees and others who may be affected by our business activities and our commitment to reduce the potential environmental impact of operations under our control, while delivering quality products and services that meet the contractual requirements of our customers. This policy applies to KBR worldwide operations.

For execution of our policy commitments, we rely on our integrated QHSE management system which provides for transparency throughout the organization on HSE activities. Our measures of success are also outlined in our policy.

The KBR leadership and process owners continually measure, analyze, review, and improve the effectiveness of our Integrated Management System so that we meet our business objectives and the client's needs while balancing environmental, social, and economic concerns.

We strive to sustain an incident-free work environment. Every employee, contractor, and designated joint-venture or alliance employee and contractor to KBR is accountable for working in a manner consistent with this goal. Employees are expected to organize, define, plan, execute, control, and verify the quality of their work in accordance with customer requirements and the KBR Management System. KBR strives to be a good corporate citizen. We will work with clients, contractors, and suppliers to improve the efficiency of operations to conserve natural resources and reduce waste and emissions.

Here are some HSE statistics for KBR in Africa:

- Nigeria LNG Expansion Project (Train 3) – 44+ million man-hours without a Lost Time Incident

- Nigeria LNG Base Project (Trains 1 & 2) – 28+ million man-hours without a Lost Time Incident
- Esso Cameroon Project (2001-2006) – 8+ million man-hours without a Lost Time Incident

Dating back to 1996, KBR has executed over 330 million man-hours in Africa with a Lost Time Incident Rate of 0.014 incidents per 200,000 hours worked.

Our commitment and track record to HSE in Nigeria is unsurpassed. We have received many HSE awards for our performance and continuous improvement in our Bonny Island projects that span 12 years and over 200 million site work-hours. Our focus is not only on safety but also on the environment and health. For example, we have an excellent record on malaria control in Nigeria.

What makes KBR's presence strong in Africa?

KBR has proven itself by performing many significant and successful projects throughout the continent. The company's presence in Africa has included Nigeria, Chad, Cameroon, Algeria, Egypt, Angola, and South Africa.

KBR has an in-depth understanding of cultural and local issues in these various countries due to our long presence there. This understanding was developed from the successful working relationships we have established with African governments, communities, and NGOs. We have also demonstrated a long-term commitment to serving these countries and their project needs by establishing offices in many locations in Africa such as Lagos, Nigeria and Johannesburg, South Africa. This commitment includes a dedicated focus on

positively impacting the communities surrounding our projects, where we have built schools, donated equipment, and provided training, to name just a few examples.

Last June, KBR established its own Nigerian subsidiary. What does this signify for KBR and for Nigeria?

The establishment of Kellogg Brown & Root Nigeria Ltd. ("KBR Nigeria") enables us more fully to support our Nigerian customers and further our commitment to meeting the country's goals for increased local content. The Nigeria operation will enable us to build local support for our clients while ensuring close coordination with our global engineering centers. Our decision to establish KBR Nigeria is strongly aligned with our commitment to helping develop local capabilities and delivering world-class projects in Nigeria and in all of the places where we serve our clients.

KBR is also committed to the increased Nigerian content initiatives and we are serious about delivering on them. This is a step change that requires resources, which we are deploying with our new office.



Nigeria LNG - KBR, along with its joint-venture partners, has helped Nigeria LNG achieve an unprecedented rate of growth through four successive engineering, procurement, construction, and commissioning projects, creating one of the world's largest LNG facilities.

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It is also proof of our long-standing commitment to the country. KBR has a 30-year history working in Nigeria and a continuous presence for the last 15 years, which includes ongoing EPC work for the country's major LNG projects and for its first GTL facility. We have also performed work for a number of Nigeria's refining, ammonia, and onshore and offshore oil and gas production and processing projects.

KBR, and partners, recently completed the FEED for a two-train expansion for the NLNG-7 Plus project. How has this contributed to KBR's track record in Nigeria? Can you provide any details?

KBR along with joint-venture (JV) partners, JGC, Technip, and Snamprogetti, recently executed a contract with Nigeria LNG Ltd. (NLNG) for the preparation of project specifications and front-end engineering and design (FEED) for an LNG plant expansion by Nigeria LNG termed the "NLNGSevenPlus" project. The project is to be constructed at Bonny Island, Nigeria. NLNG is a company registered in Nigeria whose shareholders are the Nigerian National Petroleum Corp. (NNPC), Shell, Total, and Eni.

The award of the FEED is part of a dual-FEED preparation activity being done in parallel by KBR and its partners along with another consortium.

The project specifications and FEED packages for the NLNGSevenPlus project include the design of two 8.5-million-metric-tons per annum LNG trains and related site utilities. The shareholders are to execute only one train in the current plan, with a decision on a second train deferred for a future date. Upon completion, the NLNG Train Seven will be the largest LNG train in the world.

We and our partners were chosen to design and build the first six trains for NLNG, beginning with the award of trains one and two in 1995. Trains one through five are complete and Train Six is under construction and expected to be completed by the end of 2007. The JV has been successfully executing Nigeria LNG projects since its inception, and the award of the FEED contract follows on this success. KBR and its JV partners are performing the FEED work for NLNGSevenPlus from their offices in the UK and in the National Engineering & Technical Co.'s (NETCO) office in Nigeria.

This project is an example of our 30-year legacy of success in Nigeria and demonstrates our ability to execute large LNG projects. KBR, alone or with its JV partners, has designed and constructed more than half of the world's operating LNG production capacity and has designed more than half of the LNG terminals in operation outside of Japan. 