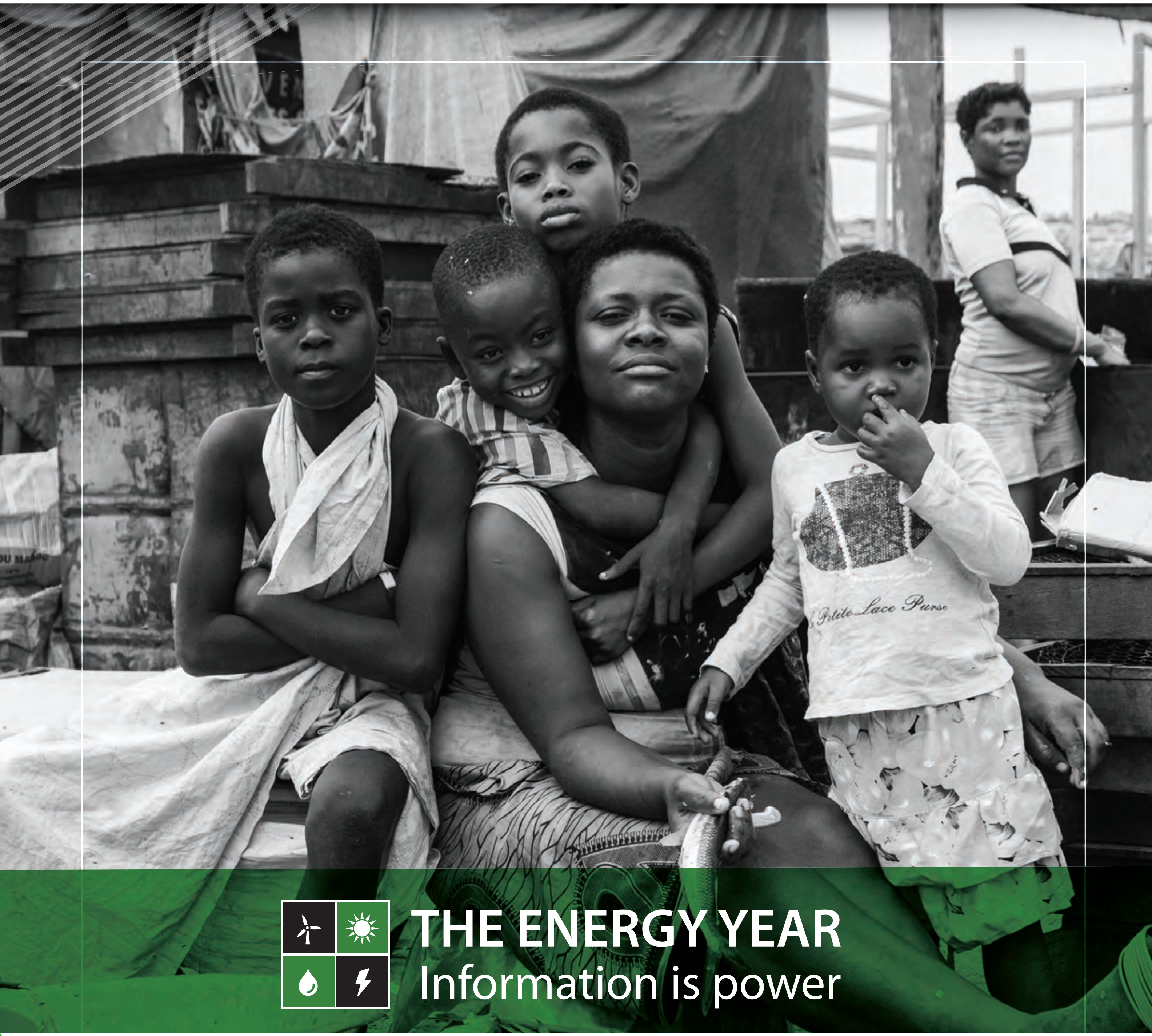
NIGERIA

Special Series: **Crisis and Resilience in the Covid-19 Era**



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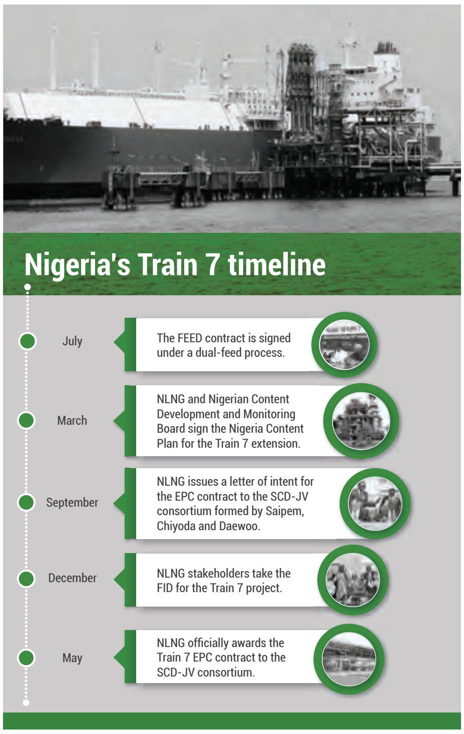

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"Nigeria will be one of the best investment destinations in the post-Covid-19 era."

Mauro BARTEZZATI
Managing Director
ELPER OILFIELD ENGINEERING

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THE ENERGY YEAR

Resilience in the face of a dual shock

Following the dual shock of Covid-19 and the oil price drop, Nigeria has shown resilience by taking a firm and proactive approach. A marginal fields bid round has been launched to spark upstream interest and investment. At the same time, the development of capital projects such as the AKK pipeline or NLNG Train 7 aim to catalyse overall growth and business continuity.

- **28 January** — First case of Covid-19 reported
- **9 March** — Presidential Task Force on Covid-19 created
- **23 March** — President announces total closure of airspace and land
- **30 March** — Lockdowns and curfew imposed in Lagos and Federal Capital
- **6 April** — Government establishes USD 1.39-billion Crisis Intervention
- **25 June** — USD 6-billion stimulus plan approved

20 March

Nigeria removes petrol subsidies

The Petroleum Products Pricing Regulatory Agency removed price caps on premium motor spirit. The decision to deregulate the country's downstream sector triggered the cancellation of subsidies and as a result the price of petrol will now be determined by marketers. Both the market liberalisation and lifting of subsidies are intended to rationalise government expenditure and deter cross-border petrol smuggling.

13 May

NLNG signs Train 7 EPC deal

Nigeria LNG (NLNG) decided to move forward with the expansion of the Bonny Island LNG complex, awarding the Train 7 EPC deal to a consortium of Saipem, Chiyoda and Daewoo called SCD. The contract is valued at USD 4 billion, and will result in the construction of a greenfield 7.6-million-tonne-per-year train. This venture will increase NLNG's production capacity by 35% to 30 million tonnes per year. The project is expected to deliver its first LNG shipment by 2024, and will create an array of in-country opportunities.

1 June

DPR launches marginal fields bid round

Nigeria's Department of Petroleum Resources (DPR) launched its marginal fields bid round, with 57 different land, swamp and shallow-water fields on offer. The round will be conducted online, and is open to companies and investors with full or substantial local ownership. A five-year develop-or-lose scheme has been established, aiming to enhance proactive development of the awarded assets. The round aims to incentivise E&P activities, spur indigenous opportunities and harness the inflow of investment into the sector.

30 June

AKK gas pipeline project kicks off

Construction was set to begin in July on the Ajaokuta-Kaduna-Kano (AKK) gas pipeline, an integral part of Nigeria's Gas Master Plan. The project represents a USD 2.59-billion investment, and will be built in three phases under a build-and-transfer model under a PPP arrangement. Chinese-based Sinosure will fund 85%, while NNPC will cover the remaining 15%. Upon completion, the 40-inch AKK pipeline will cover a distance of 614 kilometres and will reportedly transport 62.3 mcm (2.2 bcf) of gas per day. This venture expects to boost gas utilisation in Nigeria, supporting domestic gas-to-power and gas-to-industry projects.

5 July

Nigerian Content Intervention Fund is increased

The Nigerian Content Development Monitoring Board (NCDMB) has approved an extra USD 150 million for the Nigerian Content Intervention Fund, which will now hold USD 350 million. A major part of these additional funds will be channelled towards manufacturing, asset acquisition (i.e. rigs, marine vessels), contract financing, community contractor financing and loan refinancing with Nigerian banks. Funds will also be allocated to two new loan product types: the Intervention Fund for Women in Oil & Gas and PETAN products.

A time to rise

Chief Timipre Marlin SYLVA
Minister of State for Petroleum Resources

The Energy Year talks to Chief Timipre Marlin Sylva, Nigeria's minister of state for petroleum resources, about the progress that the country's oil and gas industry continues to make despite Covid-19 as well as post-crisis opportunities for investors. The Ministry of Petroleum Resources ensures that industry operations are in line with health and safety regulations and national development goals.

How do you measure the nation's response to the Covid-19 pandemic?

Aside from all the difficulties it brings to the global economy, I believe that Covid-19 presents significant opportunities to us as a country as well. We see the current period as a chance to develop local capacity, which will allow us to utilise cheaper, locally produced sources and reduce our reliance on the global supply chain. Increasing our investment in local manufacturing and supply is of key importance in order to operate our industry better.

We are also aggressively working towards lowering our cost of production and reversing the Covid-19 pandemic's impact on exploration and production. I am confident that our local oil and gas industry will come out of the Covid-19 crisis stronger than before.

Prior to the pandemic, Nigeria was completely dependent on foreign exchange for oil. However, the current crisis has proven to us that we cannot continue to depend solely on oil. We must expand our economy, and part of that expansion includes more aggressively developing gas-based industries.

One of the testaments to that objective was the signing of the Nigeria LNG Train 7 EPC deal with Saipem in April 2020, and we are going to see more gas development projects in the coming months. We are also looking at developing fertiliser projects on Brass Island and constructing an ammonia plant to monetise our gas resources locally.

What can be done to optimise the production costs associated with Nigeria's oilfields in today's environment?

Most of the production in Nigeria is through joint venture agreements between NNPC and private companies, which are either IOCs or local indigenous players. Most of the time, the private companies are the operators. Unfortunately, we believe that the audit of these joint venture assets has not been carried out properly in many cases, so we are optimising this process to determine the real value of these assets. I believe that we will soon begin to see some very good results, which will lead to a lower cost of production per barrel.

What role can local capabilities play in strengthening the resilience of Nigeria's petroleum industry to cope with the dual shock of Covid-19 and the oil price collapse?

I am convinced that this is an area in which we have scored quite high from the African point of view. A lot of African countries have asked us to support the development of their local capacities. For Nigeria LNG Train 7, we have moved from almost zero in-country participation to nearly 85% of the construction being done in Nigeria. Going forward, we would like to reach 100% local procurement for the project. In terms of local capacity development, we have done very well, and these advancements will help further develop our oil and gas supply chain through the difficult months ahead.

How can new technologies help the local energy industry attract private investment?

The Covid-19 pandemic has really opened the eyes of all industry stakeholders, and we have all been forced to do things differently. We are incorporating many new developments from the area of technology into the legislative process and the new Petroleum Industry Bill that we are working on. We want to make Nigeria a more attractive investment destination so that a lot more people and companies can come in.

There is a lot of competition around Africa, and the only way to make investors more interested in our offerings is by showcasing the real opportunities present in our country and our appetite for technology transfer. Technology is one way to optimise the costs in our industry, and we definitely want to attract new technological developments into the country.

NNPC is trying to see how it can get more involved in R&D so that we can develop local solutions to local problems. In the coming months, there will be a lot more involvement in R&D from both NNPC and the Department of Petroleum Resources.

How do you view Nigeria's ability to attract FDI into its oil and gas industry post-Covid-19?

We are quite pleased that the Train 7 EPC deal was signed during these difficult but crucial times. It was also one of the few projects that reached the FID stage during the past year, and it tells the global investment community that Nigeria is prepared to beat the crisis.

We have seen a lot of competition growing around Africa, and there have been a lot of discoveries on the continent recently. It is time for Nigeria to position itself as the strongest oil and gas investment destination in Africa, so we are working on making important changes to the investment environment in the country's oil and gas industry. We want to continue growing our industry and increasing our lead.

Post-Covid-19, investors should not hesitate to invest in the country's hydrocarbons industry. Nigeria is getting safer and a lot more attractive, and it offers an environment where operations are becoming more profitable. ■

Nigeria's strength in the storm

The Energy Year talks to Engr. Simbi Wabote, executive secretary of the Nigerian Content Development and Monitoring Board (NCDMB), about the Nigerian oil and gas industry's ability to withstand the pandemic and the role of digitalisation and new technologies. The NCDMB promotes the development and utilisation of local content and oversees the implementation of local content legislation.

Engr. Simbi WABOTE
Executive Secretary
NCDMB

How do you view the Nigerian oil and gas industry's ability to withstand the pandemic?

The Covid-19 pandemic is affecting the entire world. It is not isolated to Nigeria or Africa; it is all around the globe and this is the first time since 1918 that we have witnessed a pandemic of this scale.

However, I firmly believe that it is something that provides not only a new set of challenges but also great opportunities for the whole world. Personally, I am an incurable optimist who believes that behind every disaster there is an opportunity and behind every dark cloud there is a silver lining. If anything, this pandemic has provided the world with the opportunity to reboot itself.

We need to take a look at everything we do and question ourselves in terms of our ability to enhance self-sufficiency and produce our own products. We know some countries, even the developed ones, have struggled to secure sanitiser or face masks over the past few months. One of the benefits of globalisation has been the ability to source items from all around the world. That concept was put to the test during this pandemic.

This is the time to look inwards. The pandemic's impact is particularly reflected in our ability to sell crude oil and other products. However, for Nigeria, the local content journey we started 10 years ago in the oil and gas sector has come in handy for weathering the storm. We have been able to use the past decade to develop a lot of Nigerian suppliers, build new capacities across the oil and gas value chain, and train Nigerian engineers to do most of the work that had been done by foreigners in the past. So, to a large extent, we have prepared ourselves.

> "Indigenous players must be ready to capitalise on new opportunities and fill in the gaps left behind by internationals."

That is why I was particularly pleased with the signing of the Nigeria LNG Train 7 EPC contract with Saipem. I am sure this deal came as a surprise to many investors. However, we are determined to go ahead with the development of Train 7 amid the current crisis and we also have other major projects in the maturation funnel.

Our level of resilience in the oil and gas sector has increased to a large extent. We did not bullishly drive our local content development. That would not have served our interests, nor would it have helped the development of our gas industry. Rather, we were pragmatic in our approach. We are now reaping the fruits of what we started 10 years ago.

How is digitalisation important to Nigeria's national oil and gas players in navigating the crisis?

They are prepared to enhance digitalisation. As a result of this pandemic, everyone has come to realise the importance of digital infrastructure. Normal life had to change from face-to-face meetings and travelling long distances to conducting online meetings. Nigerian entrepreneurs and businesses have encountered plenty of opportunities coming out of digitalisation.

In fact, a lot of them have started to position themselves to take advantage of this period. That is why we were able to quickly adapt to the new normal during the lockdown, as we have the latent infrastructure waiting to be fully deployed. Now, all the people in the tech sector are further ramping up their capacities to embrace digitalisation and artificial intelligence. The pandemic has prompted us all to rethink information-sharing practices and technology deployment around the world, and Nigeria is no exception to that.

How will new technologies revolutionising oil and gas exploration and production impact the country's labour market?

Luckily for us, the oil and gas sector has always been at the forefront of embracing new technologies. It is unlike any other sector. Today, we can have 2-kilometre-deep wells drilled offshore from a safe distance via automated systems. That is a result of new technologies. By nature, the oil industry has always embraced state-of-the-art techniques and forward-thinking solutions.

The common fear of people that digitalisation will bring about unemployment is only natural. In Europe, when the first automobile was invented, there was this fear that people who manufactured horseshoes and built horse-drawn carriages would lose their jobs. However, the automobile industry contributed positively to the increase in employment. Factories were built to manufacture automobiles, which employed more people. Similarly, the opportunities stemming from digitalisation are greater than what we see today.

It may be a new area for many of us, but the opportunities it comes with are greater than the disadvantages it has. Nigeria has come to begin to embrace the potential and role of digitalisation in moving the oil and gas sector forward. We have to prepare ourselves for technology evolution as the world continues to evolve. It should not come as a shock to anybody.

Why should international investors stay focused on opportunities in Nigeria's oil and gas industry?

International investors will look at their portfolios, trying to determine which regions and continents are most favourable to them in terms of human capital, existing and available hydrocarbons reserves, ease of doing business and return on investment. They are going to have to restructure their portfolio investments across Africa and Nigeria will continue to provide huge opportunities for them.

Nigeria still has so much untapped potential. We have proven reserves of almost 200 tcf [5.66 tcm] of gas and we have not even utilised 30% of that. We also have substantial untapped crude oil reserves. I sincerely believe that Nigeria is still an attractive place in terms of human capital and intellectual capacity. ■

Engr. Sarki AUWALU
Director and CEO
DEPARTMENT OF
PETROLEUM RESOURCES

Co-operation and collaboration in Nigeria

The Energy Year talks to Engr. Sarki Auwalu, director and CEO of Nigeria's Department of Petroleum Resources (DPR), about how the country is strategically implementing OPEC-mandated production cuts and the unprecedented co-operation among industry stakeholders to fight the pandemic. DPR is the regulatory body for Nigeria's oil and gas industry.

How has DPR managed to ward off some of the negative impacts of Covid-19 on Nigeria's oil and gas industry?

The president and government authorities have rolled out a wide range of policy directions in response to the pandemic. DPR has put a lot of new directives and initiatives on trial over the last two months to protect the country's oil and gas operations because the pandemic came at a time when the local industry was about to kickstart some major developments.

Starting in March, we have issued at least four industry circulars on management of Covid-19, which highlighted measures such as social distancing, curfews, modified work processes, use of online resources and electronic media to support operations, as well as curtailment of the workforce at project/construction sites, all in line with the federal government's directives.

This circular on workforce management at offshore/remote locations has changed the work schedule for offshore personnel from a 14-day, on-off cycle to spending 28 days offshore and having to stay 14 days in quarantine before embarkation and other variants thereof. If necessary, these periods can be further extended upon evaluation on a case-by-case basis.

These actions have been effective so far. We recorded only a couple of new Covid-19 cases among platform and plant workers, and we have had zero fatalities within the industry thus far. Drilling, well intervention and production activities are continuing without disruption, and we have not had any shutdowns or even a single incident. DPR enhanced collaboration with relevant state authorities and issued special permits to ensure that industry workers are able to move to locations unhindered.

We continue to encourage mutual collaboration among industry players. All of our licences are being issued online and our directives are also accessible online. Similarly, our meetings, technical reviews and evaluation exercises with industry players, including some inspections that do not require physical presence, are being conducted through various online platforms. Those that require physical presence and are not critical have been delayed until the situation improves.

We are also constantly working on improving the general industry guidelines on operations in remote locations during the pandemic. If one looks at Nigeria's oil and gas industry, there are a lot of remote locations, and these locations are easily vulnerable to Covid-19 and have to be protected to safeguard the health of personnel and continuity of operations. DPR created a situation room that is fully dedicated to Covid-19 response, and we have been using enterprise resource planning tools to monitor and sustain operations within the industry.

This situation room includes all of DPR's operations controllers and heads of departments, and we pretty much work 24/7. We have meetings every morning to discuss the latest updates and see what new measures must be taken to protect people and operations. We also invite all industry stakeholders to join our situation room talks and share the lessons they have learned. We must continue monitoring the situation on a daily basis to provide the leadership the industry needs during this precarious time.

What steps has Nigeria taken in response to the unprecedented oil production cuts made by OPEC and its allies?

The falling global oil demand caused by a slowdown in most economies around the globe has negatively impacted the crude oil price. In response to OPEC's directives to deliver oil production cuts, Nigeria has accepted the reduction and is implementing the volume cuts.

However, we did ask ourselves whether it was a commercial volume or a volume that has yet to be extracted. In any case, we decided to reduce our production in areas that come with higher cost per barrel and maintain production volume in fields that can be developed at lower costs. This approach has allowed the country to establish an equilibrium with respect to income as opposed to applying the reduction equally across all our producing assets.

Over the past two months, we have seen sharp drops and increases across the global industry, but we have pretty much managed to maintain consistency in terms of the country's production, which include condensate that is not subject to OPEC cuts.

What initiatives have the country's key stakeholders and DPR implemented to confront Covid-19?

Many of the industry players have been giving back to fight Covid-19 and donating to the federal government and state authorities as well as local communities. Some have contributed to building isolation centres and are exploring various ways to help the populace combat the pandemic.

The most difficult challenge we all face is community transmission. Once that starts, Nigeria's health sector can easily be overwhelmed. We studied the statistics in every major city across the globe, and it is imperative that countries take preventive measures to stop community transmission of Covid-19.

DPR and the NCDMB [Nigerian Content Development and Monitoring Board] have come together to attack Covid-19 rather than react to it. We have realised that we need to start the mass disinfection of our cities, most of which are densely populated. Combatting Covid-19 by applying mass disinfection practices can help us stop the spread of the pandemic instead of dealing with large groups of internally contaminated people.

We will soon embark on this ambitious programme, focusing first on the linear cities that are used for transportation of food and emergency shipments to communities. These cities are greatly exposed and can easily become epicentres of the pandemic within the country. We have so far received some good responses to this initiative, and our goal is to get at least 20 trucks with sufficient chemicals for the next six months to spray disinfectant through the cities of Lagos, Abuja, Port Harcourt, Kano and many others.

How has collaboration among all levels within the industry accelerated to combat Covid-19?

The collaboration between the country's key stakeholders has been very productive so far. We are all working towards finding the best solutions, and it is only when we overcome this challenge that the industry can be stable again. Thanks to digitalisation, we have been able to maintain production, as well as continue to maintain exports and imports. We achieved everything we wanted to achieve to stabilise the industry; however, we have yet to get to the end of the battle and win the war.

We do not know if the pandemic will reset and whether there will be a second or third wave. With the easing of the lockdown, one can see the number of cases rising again, so we must carefully monitor the statistics to see how the easing of restrictions will affect Lagos, Abuja and indeed other cities.

In the downstream sector, trucks are leaving Lagos every day to deliver petroleum products to other parts of the country, and that is an area we have to protect. We have been checking the daily movement of every truck and making sure that all drivers are protected. Because of these strict directives in place, we have so far been able to reduce the underlying transmission patterns of Covid-19.

Combatting the pandemic has really been an "all-hands-on-deck" effort, including all licence/permit holders, IOCs, indigenous companies, industry workers, unions and associations. This is the first time the entire industry has really been acting as one. We enjoy working together and we are taking a holistic approach to understand what more can be done going forward.

What message would you send to international companies that will have to make hard decisions about where to invest post-Covid-19?

The world needs to know that Nigeria is more of a gas province than an oil province. Our proven gas reserves have increased to 203 tcf [5.75 tcm], and gas is without a doubt the future source of the world's energy needs. The signing of the Nigeria LNG Train 7 EPC contract is a clear testament to the country's huge undiscovered gas potential. We have great in-country capacity and potential for gas-based industries that need to be developed.

The three critical projects that will put Nigeria on the map of global gas developments include the domestic gas transmission hubs – the OB3 [Obiafu-Obrikom-Oben] and AKK [Ajaokuta–Kaduna–Kano] gas pipelines – and the Nigeria Gas Expansion Programme (NGEP). All of these undertakings will be game changers, not only for Nigeria's economy but for the global gas market.

The volume of gas that will pass through the OB3 and AKK pipelines will create opportunities to further strengthen our local energy value chain. NLNG Train 7 will take us from producing 22 million tonnes per year of LNG to 30 million tonnes and will increase our production by 35% along with our competitiveness in the global market.

At the moment, there are only a handful of world-class petrochemicals companies in the country. These three projects will not only allow for the expansion of gas-based industries but will cater to Nigeria's immense internal market potential. Virtual pipelines will be used to make sure gas will get to all remote locations of the country. Nigeria has over 40 million households that require energy to survive, and gas is the easiest and cheapest source of energy out there.

Despite the current global economic turmoil, Nigeria's energy industry has been making significant progress, and there is no doubt that the country will offer massive potential to international investors. We firmly believe that our country will continue to add significant value to the ecosystem of the global energy industry. ■

Femi ABEGUNDE
Partner & Deputy Chairman
DELOITTE WEST AFRICA

A push for diversification

The Energy Year talks to Femi Abegunde, deputy chairman of Deloitte in Africa and head of energy and resources for Deloitte in West Africa, about how the public and private sectors have dealt with the fall of oil prices. Deloitte West Africa provides audit, consulting, financial advisory, risk management and tax advisory services.

How has the government responded to low oil prices and the drop in demand?
Low oil prices came into being initially because of the tension between Russia and Saudi Arabia. However, as the issue between these two giants was resolved, the Covid-19 pandemic put countries into lockdown. This unfortunately led to even lower oil prices due to very low demand.

The situation was so bad in Nigeria that we had a glut of supply as FPSOs and tanks became full, with nowhere to push crude to. April and May in particular were difficult for industry cashflow as prices dropped to around USD 20 per barrel. The Nigerian government was said to have even offered some of its crude for as low as USD 11 per barrel to encourage evacuation and avoid shutdowns in the producing fields.

I am aware that the government also sent a letter to operators to cut costs by up to 40% as a way to stem the erosion of value which the unexpected situation has brought. Operators have aggressively embarked on cost cutting but may not get as deep as 40% in practical reality.

Put together, I will say the government responded well, particularly as they have also now followed the directives of OPEC+ to cut production in order to improve the oil price.

How have local companies dealt with the sudden drop in revenue?
The industry has responded by cutting projects and reducing headcounts and overhead. Some clients aggressively reduced staff. Businesses that once occupied two floors of office space now occupy one. Some of our clients have started sending lowered quotes for existing contracts. Others that use foreign companies for services and pay in foreign currency are now trying to use local companies and pay in naira. There is going to be a tightening of available USD forthwith.

"A prolonged crash of the oil price may force the industry to finally diversify."

Some people have mooted that this may lead to mergers in the industry, but I don't think so. Regarding mergers and acquisitions, indigenous players do not have the mindset for this.

Many marginal field operators are thinking about converting crude into refined products by building modular refineries near operation sites. These products can be sold locally, which saves a lot of headache. There are already two to three refineries producing refined products this way. Some of their products are even sold upfront before production.

Will this crisis lead to a diversification of energy sources in Nigeria?
I am not very encouraged by what I have seen in the last few years. Anytime the price of oil drops and revenues are threatened, the industry starts talking about diversification and alternative energies. However, when oil prices jump, they tend to forget about it. However, a prolonged crash of the oil price may force the industry to finally diversify.

Will this current fall in oil prices have negative effects on Nigeria's larger economy?
Definitely – not only in Nigeria but in so many countries of the world. However, I must say the Nigerian economy is resilient. This is not the first time oil prices have dropped. Things will stabilise. We hope to see more oil demand as countries reopen their economies. ■

Nigeria's marginal fields bid round

Nigeria finds itself at a crossroads with the unprecedented crisis where the triple challenge posed by Covid-19, low oil prices and a supply glut. In the midst of this, the Department of Petroleum Resources (DPR) has launched its marginal fields bid round as an ambitious move that expects to boost Nigeria's E&P sector, harness investment and promote indigenous participation.

There are 183 fields classified as marginal in Nigeria today, representing 2.3 billion barrels of crude oil reserves. Nigeria's Petroleum Act (1996) refers to marginal fields as those discovered but left undeveloped for more than 10 years. Further conditions are clarified in DPR's Guidelines (2020), which set forth the procedures for this year's marginal field bid round. These ensure a smooth transfer of assets, which pass from the original oil mining lease holder to the newly awarded bidder.

Nigeria has used these types of auctions to engender local participation, fostering an inclusive climate where indigenous E&P firms engage in farm-ins and joint ventures with IOCs that have a stronger technical and financial position. And indeed, since the country pioneered its first marginal fields round in 2001/2002, other oil producing states across the continent have followed its path, namely Angola and Gabon.

This long-anticipated bid round is exceptional for taking place in the context of the industry's current challenges. In June 2020, DPR announced its launch, offering 57 fields encompassing a mix of on-land, swamp and shallow-water areas. Nigeria's marginal fields typically produce from 4,000 to 30,000 boepd, with a lifespan of eight to 15 years. The bid round has the potential to greatly increase the contribution of marginal fields to Nigeria's overall production, which today stands at 6%.

The buzz generated by DPR's bold and ambitious decision to go ahead with its plans has sparked the interest of more than 600 companies, which represents close to a 30% participation increase from previous rounds. This suggests that despite the crisis, the perception of opportunities is running high among investors, who still eye Nigeria as an important E&P market.

The 2020 marginal fields round aims to re-energise Nigeria's upstream sector, along with its entire value chain. A 60-month develop-or-lose scheme has been established, where the government holds the right to take over any field that fails to yield production results in this timeframe. With it, DPR wants to avoid a scenario like that of 2001/2002, where less than 40% of the awarded fields were brought on line.

Secondly, the auction aims to create a window of opportunity which will attract new players and foreign capital into the sector. Once in production, these fields will represent a USD 5.7-billion boost for the economy, which has been harshly affected by low oil and gas revenues during the pandemic.

Lastly, the awarding of these fields will not only advance business continuity, but most importantly, it will stimulate in-country indigenous participation and create further opportunities in the Nigerian petroleum industry.

ENHANCEMENT IN-COUNTRY: The Local Content Act (2010) was designed to promote "the development and utilisation of in-country capacities for the industrialisation of Nigeria" and the bid round is poised to further this goal. At a time where activity among majors is subdued, space is opening up for juniors to make a difference.

While big offshore fields need big ventures, marginal fields require smaller indigenous companies capable of operating in an era of low prices. These assets have a lower cost of investment, ranging from USD 50 million to 100 million, and promise short-term returns. This not only suits the pockets of local E&P companies but also aligns with the government's goal of getting the production ball rolling.

Despite having a strong domestic focus, the development of these fields will open up avenues of collaboration with IOCs and technology providers. "There are many opportunities for new players to bring in novel technology, especially in the field of cost cutting where we have not been too cost-cautious here," Seni Edu, CEO of Eko Support Services, told The Energy Year.

Crude reserves held in Nigeria's marginal fields:

2.3 billion barrels

Likewise, the eligibility for this round is stipulated in DPR's guidelines with a clear Nigerianisation target. Participation is only open for full or substantial Nigerian companies following a maximum 51:49 local-to-foreign ratio. Foreign technical partners can hold up to 49% but only through a Nigerian-registered firm. Further, bidders are required to have a proven track record in E&P ventures. This not only sets a standard, but also guarantees that fields are not abandoned once awarded due to a firm's lack of competence.

Lastly, awardees will commit to develop the indigenous workforce, support local services providers and assist local communities. This win-win value proposition hopes to achieve a Nigerian oil and gas industry aligned with the goals of the Nigerian Content Development and Monitoring Board, which aims for 70% local content by the year 2027.

CHALLENGES AND CONSIDERATIONS: This bid round also faces an array of challenges that have either emanated from or worsened during the crisis. Financially, E&P operations are capital intensive, so securing proper funding to successfully acquire and develop any field is fundamental. However, the crisis has led to a financial shock which has spurred liquidity constraints among upstream players and reduced the risk-capital appetite of local investors. For this reason, innovative financing will be vital, forcing companies to explore foreign investment avenues and

seek third-party financiers. This could trigger a new wave of investment in the sector.

Due diligence is also an imperative step of this process, where prospective bidders must engage in technical, legal, environmental and financial enquiries to successfully mitigate risk. Among other things, this will assure they are not inheriting any past problems (e.g. litigation) which may hamper the development of these fields. Likewise, potential partners and financiers ought to do the same to make sure bidding companies are sound and trustworthy. DPR expects to provide abundant and credible field data which will make the bid round richer and more transparent.

Lastly, the fiscal regime under which marginal fields and their corresponding actors fall has served as more of a deterrent than a support. The Petroleum Profits Tax Act establishes that new marginal field operators are subject to 65.75% income profit tax during the first five years of work, and 85% in subsequent years.

In addition, many onshore fields are subject to local taxes and fees, not to mention the obligation many operators have of paying levies to communities as an act of social responsibility for possible disruptions. As a result, indigenous companies find themselves overwhelmed with fiscal obligations which have a negative impact on their potential to take on E&P ventures.

A more favourable fiscal environment driven by lower taxes and higher allowances is needed to advance Nigeria's hydrocarbons industry. "The silver lining in all of this is that there is no better time than now for Nigeria to review and reform its oil industry," Hakeem Adedeji, CEO of Hydrocarbon Advisors, told The Energy Year.

LET THE BLACK GOLD FLOW: This year's bid round is putting Nigeria's whole petroleum industry to the test, and is bound to set a precedent in the post-Covid era. In a world where oil prices may struggle to reach past benchmarks, marginal field developments could become the "new normal."

Grand investments are on hold, but a new way is being paved for small local oil and gas players. It is here where marginal fields have an edge: they are less vulnerable to oil price fluctuations as they are smaller in scale, cheaper to develop and quicker to monetise.

The somewhat audacious move DPR has taken is opening up new opportunities for established E&P companies but also for the so called "League B" of local players. This could pave the way for junior Nigerian low-cost producers to prove their value. Moreover, the 10-year path of local content the nation has walked is now yielding reliable added value given the strain this crisis has put on globalisation. Hence, this bid round will be an important keystone to advance localisation in Nigeria's upstream sector.

MULTIPLIER EFFECT: The government expects to witness production from these fields between 2021 and 2026. This will have a multiplier effect on the sector, as it will invigorate the entire local value chain, encouraging business continuity and giving a virtual sense of recovery.

In this regard, Chief Timipre Marlin Sylva, minister of state and petroleum resources, told The Energy Year, "It is time for Nigeria to position itself as the strongest oil and gas investment destination in Africa. We want to continue growing our industry and increasing our lead." ■

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FORUM

What are the key growth opportunities for Nigeria's local companies in the post-pandemic future?

While Nigeria's oil and gas activity has been constricted during the Covid-19 crisis, opportunities are emerging in a new alignment that places local players at the forefront of the industry.

Decentralised solutions in demand

Souheil ABBOUD
Managing Director
VFUELS

The Energy Year talks to Souheil Abboud, managing director of VFuels, about why the company is bullish on the continuing competitiveness of its modular refinery projects and how these projects benefit local economies. VFuels is a Houston-headquartered full-service oil and gas engineering, design and fabrication company.

To what extent has your business been affected by Covid-19?

Our business has been hindered by Covid-19 as we were about to commission and start up the 5,000-bpd Waltersmith modular refinery in Nigeria. We had to come up with mitigation measures and plans to compensate for the time lost due to lockdowns across the world.

All in all, we have been interrupted, but unlike other businesses, we are not going to make significant changes to our business model. If anything, we believe that the demand will expand as the low oil price coupled with the lack of storage capacity is pushing people to refine more. We need to keep pushing, as the demand for refining capacity is growing, especially in Africa, irrespective of the current market economics.

How can local economies benefit from your modular refinery projects?

These projects are decentralised and tend to primarily serve the local community initially, and then the local economy. Our Nigerian project fulfilled all the outcomes of sustainable development with respect to job creation, transfer of technology, health, environment, wealth creation and education. Both VFuels and Lambert have a strong commitment to making our projects on par with international standards when it comes to sustainability. It is important to note that our clients and local government regulatory bodies have also been aggressive in ensuring that local content and sustainability are adopted.

These types of projects are relatively simple to construct, operate and maintain; therefore, the impact on the local economy is substantial since a considerable amount of the services and material can be sourced locally. ■

> "We believe that the demand will expand as the low oil price coupled with the lack of storage capacity is pushing people to refine more."

Mauro BARTEZZATI
Managing Director
ELPER OILFIELD ENGINEERING

Confidence in Nigeria's future

The Energy Year talks to Mauro Bartezzati, managing director of Elper Oilfield Engineering, about how changes in IOCs' needs during the Covid-19 crisis are impacting business and operations for the service sector. Elper Oilfield Engineering is a Nigerian-owned company that specialises in engineering and technical services for the oil and gas industry.

How has your business been affected by Covid-19?

The immediate reaction from the industry was a request for cost reductions, as companies have started looking into 30-40% savings in terms of both new investments and ongoing production. We had the first such reaction from ExxonMobil, for which we had to reduce the number of personnel for our ongoing contracts. Additionally, Chevron has informed us that it is looking into a 50% reduction in terms of value, not personnel.

As a general rule, we are expecting reductions either in the number of personnel or value-wise. As far as personnel, it is really a matter of qualifications: The more qualified the personnel are, the more the client is looking to reduce the numbers because of the higher cost factor. As we speak, we have almost 500 people working, a percentage of which will probably be temporarily reduced to some extent. The expatriate workforce will probably be more affected than the Nigerian workforce.

Apart from ExxonMobil and Chevron, no other client has reacted as of yet. Let's wait and see what Shell or Total will do, then we can make better assumptions on how our service market will need to be reshaped. This will happen fast, and even if we hope that the market will recover somewhat, the price downsizing aspect will stay longer.

As far as day-to-day operations are concerned, we immediately applied remote-working schemes for our core personnel and enhanced communications with personnel working in the field. We are very persuasive with all of our employees to follow clients' prescriptions. Until now, we did not have any employees that encountered any health issues. The general rule to be followed within our company is to apply social distancing and remote working and to make sure that all of our staff members obey clients' prescriptions regarding safety.

To what extent can the services sector allow more rate reductions?

It has its limits, of course, and as has happened in the past, we can go as low as we can as long as we do not have to compromise quality. We also have to see if this downsizing is just an emergency response or if it will stay there longer. If it is an emergency response, we will do our duty like everybody else and hope that things go back to acceptable levels soon. If it is for the long term, we will have to review our programmes and internal organisation.

However, past experiences show that crisis always accommodates lower fees but never comes with a compromise in quality. I think this is where the line will be drawn.

"Nigeria will be one of the best investment destinations in the post-Covid-19 era."

Do you expect an uptick in asset management services as was the case during the 2015 crisis?

In Nigeria, I think this area has been kept at a very high level as far as deep offshore is concerned. Requests for maintaining older facilities will probably come, although in Nigeria this is more in the hands of non-international organisations. Total, Shell and Agip mainly have some facilities in onshore, swamp or mid-sea areas, and these will still require quality maintenance services.

In the case of IOCs, resources are mostly there for maintenance, but for the independent operators, it is an open question. In Nigeria, they were not exposed to a major crisis in the past. The 2009 crisis was mostly in the hands of IOCs, which was followed by an asset sell-off to smaller companies from 2010 onwards. We have to see how strong they will be faring financially to keep up with the requirements.

As far as Elper is concerned, we have more experiences with IOCs, and there we expect the usual curve of things going down and then picking back up.

What are some of the initiatives from companies to fight Covid-19?

I know of some companies that are redirecting their production to masks and disinfectants, and some are doing it quite effectively. Social responsibility has been applied by IOCs, NNPC and the large Nigerian companies in a very generous way. I have also personally participated through an association for the procurement of medical kits for testing, etc. Other industries such as telecommunications responded with attention and generosity too.

Of course, needs are huge in a country with a population of almost 200 million, but everybody has done their best up to now according to their own capabilities.

How confident are you about Nigeria's future in the light of this crisis?

I am quite confident, and I can tell that Nigeria and Africa will be one of the best investment destinations in the post-Covid-19 era. The big conglomerates will find opportunities here that will be hard to find in the Western world. If you are looking for real opportunities with relatively fast returns and good interest rates, I believe Nigeria has potential because of its size and the internal market.

Other African countries will require a lot of investment in the areas of infrastructure and logistics, so they are prime destinations for funds but should be carefully analysed. On the other hand, we are more fragile when such a crisis happens, but we are also more flexible and not too structured, so we are prone to react in a much faster and more diversified way. Funds will probably still be available after the crisis, and if there are solid projects that can be showcased to the financial community, those can be very rewarding. ■

Hakeem ADEDEJI
CEO
HYDROCARBON
ADVISORS

A push for reform in Nigeria

The Energy Year talks to Hakeem Adedeji, CEO of Hydrocarbon Advisors, about the sudden downturn in the country's oil and gas industry, the need for reform to help unlock capital and the industry's potential for consolidation. Hydrocarbon Advisors provides strategic financing and structuring advice to energy companies and banks in West Africa.

How has the Nigerian oil and gas industry changed over the course of the Covid-19 crisis?

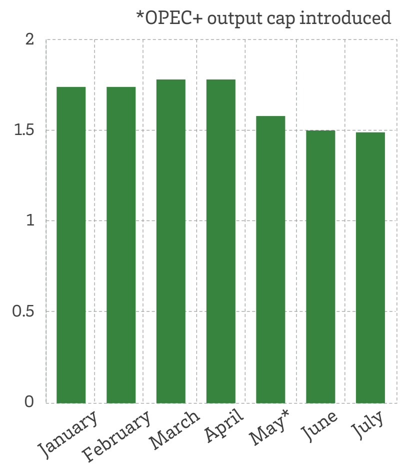
Similar to other economies, the suddenness and depth of the Covid-19 crisis has dimmed the prospects of the global oil industry, and Nigeria's in particular. While the country's average cost of production is well above the USD 30 mark, oil prices have stayed in the low USD 20s for the best part of March and April.

A lot of independent Nigerian producers clearly have a heavy debt burden, which is causing distress and will have to be rescheduled. This equally puts a lot of pressure on banking industry balance sheets and, consequently, the financial system. Even if the global economy were to swiftly recover (i.e. a V-shaped scenario), this crisis has called into question the sustainability of the Nigerian industry to produce at unit costs above USD 20. In step with this, one then questions the ability of producers to raise the required capital in the long term in order to raise the country's production above the sticky 2-million-barrel mark.

The silver lining in all of this is that there is no better time than now for Nigeria to review and reform its oil industry. For example, Covid-19 should force us to question our mode of regulation. Why do contracts take forever to be approved at the government level? When are the long outstanding segments of the petroleum industry laws going to be passed? How could we hope to start bringing down the quickly escalating cost of production that has characterised the industry and made operation much less profitable than it was a decade and a half ago?

Pre-pandemic, there had been general optimism in the industry about the renewed co-operation among the producers, the NOC and the industry regulators, which could potentially generate improved performance for Nigeria. Given the urgency

Nigeria's crude oil production, January–July 2020 (million bopd)



Source: OPEC

that we have at the moment, it is our hope that a more progressive set of policies would emerge from the impact of Covid-19 that could result in more projects getting sanctioned. A good example is the recent progress on the Nigeria LNG Train 7.

Investment banking firms such as Hydrocarbon Advisors have First-World know-how, are Nigeria-centric and are able to support the government in thinking through and raising the much-needed capital to execute a lot of these projects.

Do you expect to see the involvement of the private sector at the NOC level in Nigeria?

If you mean would the private sector invest in a privatised NNPC, I would say yes, subject to certain key conditional reforms. Many of these reforms, such as the PIB [Petroleum Industry Bill] have been in the pipeline for more than 10 years. This legislation needs to be passed and implemented rapidly once and for all.

The potential sell-down of government stakes in the NNPC-IOC joint ventures has been talked about for more than 25 years. Taking this major initiative post-Covid-19 means that the Nigerian state can raise the much-needed capital to deal with social projects such as health, education, infrastructure, etc. and permanently reduce the burden on the government to budget for projects that can be more efficiently funded in the capital markets.

Availability of capital is not the problem here. If we look at available data, more than USD 17 trillion of funding was said to have earned negative returns globally in 2019. If you were to attract a portion of that money to Nigeria with positive risk-adjusted returns, this could mean a remarkable improvement in our oil and gas growth story.

However, if we do not put the PIB and the right policies in place to protect investors, such funding opportunities will never materialise. Given the quandary which Covid-19 has put Nigeria in, I am optimistic that such initiatives would be completed by the government going forward.

> "The silver lining in all of this is that there is no better time than now for Nigeria to review and reform its oil industry."

What would be an adequate pricing structure for Nigeria to carry on activities?

Given that the oil markets may remain volatile in the coming years, I believe that the consensus among analysts and industry practitioners is that costs would have to come down to USD 20 and below for the Nigerian oil industry to make money sustainably.

Do you expect to see consolidation across the industry in Nigeria?

Consolidation could potentially happen in many ways. Firstly, it could be as simple as companies within the same area of operation collaborating to eliminate infrastructure duplication and thereby save costs (i.e. flowlines, processing facilities, tank storage, etc.). I believe that the Department of Petroleum Resources has commenced this process and should aggressively pursue this.

On another level, and subject to often-stringent government rules for approving change of ownership and/or control of oil licences, consolidation could mean companies acquiring each other's operations and oil mining licences. Hydrocarbon Advisors played a major part in advising on the acquisition of Seven Energy by Savannah Energy in 2019.

At a much more complex level, consolidation could potentially occur because licence owners have defaulted on their loans and bonds and the creditors have taken decisive action to realise the security. However, for Nigerian banks to exercise such action, they would need the backing of the minister of petroleum – and usually the president – who has the sole authority to approve any change in ownership or control of an oil licence.

While such approvals could be onerous and expensive, it is our belief that this is critical to unlocking much-needed capital for the Nigerian oil and gas industry. There is a limit to how much Nigerian banks can raise for the industry. External capital providers will only come in if they know that loan defaults can be rectified by their ability to realise their security, which is usually the OML. It also goes without saying that such radical possibilities by Nigerian standards would need the institutional support of the Central Bank of Nigeria, the Asset Management Corporation of Nigeria and the Department of Petroleum Resources. ■

Eke U. EKE
CEO
SPRINGROCK GROUP

Accommodation and moderation

The Energy Year talks to Eke U. Eke, CEO of SpringRock Group, about steps the company has taken to protect its workers and ensure business continuity during the pandemic and the best timing for Nigeria to begin pursuing renewables. SpringRock Group is a Nigerian E&P and oilfield management services company operating in Africa.

How has SpringRock managed the human and business impact of the Covid-19 pandemic?

The past months have not impacted us as significantly as they may have impacted several other organisations. This is because of the unique nature of where we were in terms of our cycle of operations prior to the pandemic. In March, we were moving our operations from one field to another, and we were winding down a project to its conclusion on a third field.

Towards the end of April, we became ready to move to the next phase on another project, and we had to look at getting that going in light of the circumstances we are facing around the world. One of the changes we decided to make in restarting this project was to send every person working on the project into controlled isolation for 14 days before they board helicopters to go offshore. During the period of isolation, these workers are continuously monitored and provided food in their rooms, since they are not allowed to leave their rooms or socialise with others. At the end of the isolation period, medical personnel come to check on them before they head out to the platform.

All of our office personnel have also transitioned into remote work. We have deployed a clock-in system that allows our people to clock in when they start their work online and clock out when they finish so that we can monitor everyone's performance comfortably. As an organisation, we had already been used to working with digital communication platforms prior to the crisis, so we did not need to do anything new or additional.

In Ghana, we have been preparing to commence actual drilling on a deepwater exploration project, but it was delayed due to the pandemic. We had a drillship with our personnel on board, and it was going to go to Spain to undergo some preparation and maintenance work before heading back to Ghana. However, by the time it got to Spain, the country was already in lockdown. Therefore, people on the ship could not leave and equipment could not be loaded onto the ship. A limited amount of work was done on the ship itself, but this hiccup has slowed down our activity in Ghana.

What best practices should local industry players be looking at to try to squeeze out more rate reductions?

I believe there must be some adjustments. We have to look at this matter through two lenses. From an oil producer's standpoint, what they used to sell at USD 45-50 per barrel was being sold at about half of that at the beginning of the crisis. Revenues have gone down significantly, and the operators' capacity has also been diminished.

On the service provider's side, on the other hand, their operating cost obligations and other overhead expenses have not gone down, so they may not be in a position to accommodate large reductions easily. The industry players have to find a middle ground. However, when an organisation is in a position where it has to make some adjustments, these cannot be carried on for long. They would have to terminate when oil price fortunes turn around.

One of the issues the industry has witnessed in the past is that operators easily get used to the benefits of lower rates and want to continue to enjoy those benefits even when the industry rebounds. This is why I think that any rate adjustments being made now should be time limited. Once the oil price gets back into a reasonable zone, rates should also go back up to wherever they were prior to the crisis. It's important that these adjustments are brought back up based on the behaviour of the oil price.

Moreover, cost optimisation must not come solely from reducing rates. SpringRock often proposes process and operations optimisations that can have a far more significant impact than any percentage rate adjustment could have. Hence, my recommendation is that both ideas should be explored and what is most beneficial employed. The focus should not be only on rates reduction.

How can indigenous operators cope with the reduction in production volumes?

There is already an inherent reduction in ability to produce. Overall, the willingness to fund exploration and production projects has been significantly hindered in this current climate. A number of projects that were going to start in June and July may not start this year. Financiers will not be ready to fund development projects at the current oil price, so many activities are likely to continue to shrink.

The government might not necessarily have to say that certain companies must

reduce their production levels based on the volumes they are dealing with presently. Due to the pandemic, most companies have already been forced to reduce their personnel footprint, which will lead to a slowdown in turnaround time and activity, and ultimately in production. Hence, in a sense the government of Nigeria could meet their OPEC quota reduction inherently from the factors currently at play.

Does the crisis present an opportunity for industry stakeholders to focus on R&D?

I would say yes and no. No, given that the oil and gas industry comes with a very lucrative business model from one standpoint. As a result of that, the concepts of optimisation and financial efficiency do not always resonate well with the industry's ambitions. You look at projects that may not be optimally run, but once they start to produce oil that is sellable on the market there will be significant margins.

In that scenario, the push to improve financial efficiency and optimisation does not catch on as quickly as it may in other industries where the margins are smaller. That's a major stumbling block for us when pursuing optimisation.

Having said that, there are still efforts on the part of SpringRock, and I believe other companies too, to look at how we can achieve better outcomes faster and with fewer resources. That kind of thinking would lead oil companies to make operations a lot more efficient, especially in the current environment.

How have SpringRock's R&D projects evolved since the outbreak of the pandemic?

We currently have a project that is geared towards bringing efficiencies into the well construction, drilling, testing and completion phase. We also have another project that focuses on producing the best out of a field. What the non-oil and gas world does not know is that when you have a million barrels in the ground, you can normally only bring 300,000-400,000 barrels to the surface and you end up leaving the rest in the ground. There are ways to increase this recovery factor significantly, and our R&D activities are geared towards optimising production and increasing the monetary value of an asset.

We still need one or two years to be able to get our ongoing well construction, drilling, testing and completions new technology development to where we want them to be. However, we feel comfortable with what our R&D effort has achieved so far. Once completed, we will turn these

> "Cost optimisation must not come solely from reducing rates."

advancements into a platform to manage all the various systems and workflows and to optimise production overall in all types of oilfields.

There is ample opportunity to explore R&D and various new technologies precisely because we are being constrained by the circumstances that we all face. There is still that lethargy in the oil and gas industry that resists quickly embracing efficiency and optimisation concepts just because this is a very lucrative business. People in the industry are quick to overlook the inefficiencies in what they are doing.

How will the current crisis affect the pursuit of Africa's energy transformation?

In order to have a balanced view, we ought to have a reality check on the issue. Renewables still produce a very small percentage of the world's energy needs, and it's going to take a few decades to be able to get to a point where renewables can become a measurable contributor to the global energy demand, and also at an affordable cost.

Some countries are in a stronger position to put more effort into developing green energy technologies and ramping up their abilities in this area. However, Nigeria should focus on further exploiting its large hydrocarbon resources and use those resources to build a base from which it can then diversify its economy and fund renewables projects. Nigeria does not have the capacity today to fund renewables projects that would be of a large enough scale to meet the needs of tomorrow.

If we scale back on oil and gas now, where do we get the funds to feed the millions of people living in poverty? Nigeria needs a clear plan for how to increase production from 2 million bopd to 4 million bopd and for how we will utilise that growth to open other revenues for economic diversification and value creation. Only then can we start building a footprint for renewables that will eventually take over oil and gas in the coming decades. ■

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NLNG Train 7 on track

LNG demand is expected to double by 2040, so the expansion of the Bonny Island complex will be vital to meeting the world's future energy demand, and will remain a keystone in the nation's growth agenda.

Timi AUSTEN-PETERS
Chairman
DORMAN LONG
ENGINEERING

Local content proves useful

The Energy Year talks to Timi Austen-Peters, chairman of Dorman Long Engineering, about the status of the company's operations, the importance of developing local supply chains and how investors have reacted to the crisis. Dorman Long operates three fabrication yards, including one with a hot-dip galvanising zinc plant.

What changes have taken place in the EPC services and fabrication scene in Nigeria since March 2020?

The obvious change is that we have had to respect a series of local directives about shutting down. Most of the production yards were shut for the whole month of April, and we started looking into gradual reopening from May onward on a skeletal basis. However, offshore and maintenance work has gone on nonstop, as the FPSO, refinery and other essential oil and gas infrastructure must continue rolling.

We still keep and send people on such kit, although we are being very careful about how we do this, even if it means employees will have to work longer hours and irregular shift times. The health and safety of our workers remain paramount at all times.

In terms of Dorman Long's fabrication and other operations, we had stopped for a while, but now we are starting up again. In terms of FIDs and ongoing contracts, we did not see much impact or have too much negativity there. Only one fabrication contract with an IOC is on hold, and we were told to wait until the end of the year for more clarity. Thankfully, it was not cancelled or abandoned. I think it is just a cashflow issue for them.

But other than that, all work is ongoing. We have daily meetings with project engineers, mobilising the best we can and getting everything ready for the different projects we are doing. Everything for NLNG Train 7 still seems to be on track. The FID is done, and the local content regulator recently issued a press release indicating that all of the criteria from its perspective have been met.

However, we are approaching things cautiously, treading gently and going step by step. Of course, many clients are having issues and indigenous companies are facing cashflow constraints, but we are working with them to see how we can stretch the budgets and manage timelines.

Do you see room for more rate reductions from the service companies?

The reality is that you can always squeeze, but you don't always want to do that. We have tried to have grown-up conversations and show our clients very transparently that we are still dealing with major cost cuts that were implemented in 2016 and 2017, and we have not raised our prices since then, even when oil prices went back up. Now, to offer a compounded price cut is a bit of a challenge; however, we try to see what we can do. Of course, a 40% rate reduction is not a reality, as our margins were never 40% to begin with.

Do you see companies in your area searching for new efficiencies to try to weather the crisis?

Absolutely. We use this time to look at everything. We had a couple of strategic discussions in which nothing was off the table. What do we want to be? Where do we want to be? This is a time of opportunity when things are relatively quiet, so we have been using this time to take another look at the company and we are halfway through this process.

> "We need to be able to rely on ourselves within the country so that we can keep going no matter what."

Has the Nigerian local supply chain become more resilient to global challenges since 2014?

Because of local content, there has always been a solid bedrock of people we work with, places to buy equipment, etc. So, it is not as if suddenly we cannot get anything because it all has to come from China, the US or the UK. For the most part, we have always looked at how we can collaborate with local subcontractors to purchase equipment instead of picking up the phone to contact companies in the US. In terms of our supply chain, other than the fact that Nigeria does not produce a lot of steel, which is a problem for us, we are in good shape.

Because of the previous crisis, we had already decided to look within the Nigerian market because of price. Now, that trend is just continuing, and we analyse the local market to see if there is any company that can do it cheaper or faster. For the few people who still doubted the importance of local content, this present set of challenges was a demonstration. We need to be able to rely on ourselves within the country so that we can keep going no matter what.

With the borders now closed and people and goods not being able to move, the economy would have had real trouble had this process not taken place. Luckily, projects can still go on, as Nigerians have been trained over years to do the work previously done by expats.

Do you expect an uptick in asset management in this atmosphere?

Yes. We saw this last time because of the reduction in oil prices. Companies did not do anything for a while, but after realising that the situation wasn't changing and they still need to produce and look after the infrastructure, they started to care about asset management and lifecycle extension. Once there is less money, companies start looking at how their budgets can go further and how the infrastructure can last longer. ■

Diversification and localisation

Ese AVANOMA
CEO
BRADE GROUP

The Energy Year talks to Ese Avanoma, CEO of BRADE Group, about how early digitalisation, innovation and diversification prepared the company to face the Covid-19 crisis and the need for organisations to work closer together. BRADE Group is an indigenous company that provides project management, drilling and completion, marine and EPCI services to the oil and gas industry.

How has your business been affected by Covid-19?

Everything was ready for a boom in 2020, and we were geared up for it. Both our company and the industry did very well before March 2020, then the pandemic came and here we are today, still reeling from the effects of the downturn in oil prices globally. The times we live in call for resilience, quick thinking and innovation, so information is critical.

As soon as Covid-19 appeared in the news and was declared a pandemic, we sought clarity from industry experts to prepare ourselves for how to manage our clients and deal with major disruptions. One of our major clients, SEPLAT, slashed their drilling activities by more than 60-70%. We first got a glimpse of this from their board meeting notes on the company's website. Further information from members of SEPLAT's leadership team confirmed that there was indeed going to be a reduction in their E&P activities. So, we adjusted our strategy accordingly and shelved some of the plans we had put in place.

Starting from the third week of February, other effects started to trickle in as well. Part of that, unfortunately, was a plan for across-the-board reductions in expenditures, as well as reviews for a reduction in staff emoluments and our employee headcount. However, a seemingly positive side of the ongoing adaptation has been the ability to work from home. Lagos is a densely populated city that is notorious for traffic congestion, which has led the city to be ranked as the third-most stressful city in the world by CNN Travel. So, working from home at a time when social distancing can save lives is a relief for employees.

During this period, we only kept critical projects going, which meant, for instance, that we required client confirmation that certain long-lead items will still be necessary. Of course, this still posed a challenge. We were right in the middle of several projects when the lockdown orders were received. However, our focus was on client satisfaction and timely project delivery.

During the last week of April, we incurred a lot of air freight charges from bringing in equipment from China to meet tight client deadlines. There were very few cargo flights coming in, so shipments waited in the queue for days. It had to be a "critical project" for us to give it attention, and that's what we did.

Are companies that were resistant to digitalisation suffering more now?

Yes, they are. We rebranded in December 2019 and increased our online visibility, and that has really helped us because we are able to engage in target marketing online with smarter and cheaper resources. The entire world turned to the internet for information and entertainment. So, companies that have an interesting online presence are seeing higher traffic that will convert into sales now and in the coming days ahead.

A change that occurred for us after the crisis of 2014 and which has turned out to be beneficial for BRADE is our portfolio diversification. Going forward, even if oil prices recover due to demand, the energy world has changed as more people will resist the use of fossil fuels due to its impact on our environment.

In the USA, there are growing calls for policies targeting fossil fuels, and there are ongoing global improvements in alternative energy sources, especially renewable energy. All of these anti-fossil fuel arguments will eventually catch up. We are not very sure of the dimensions that the oil business will take in the future. Therefore, diversification is critical to the survival of businesses such as ours.

> "The numbers clearly favour local production in Nigeria; it is the sensible and sustainable thing to do."

We have also invested in other businesses such as BRADE Chemicals, which has peaked right now. The chemicals business will likely consume three times our current investment and still generate a decent ROI. This is a business that will potentially rival BRADE's current capacity in the oil and gas industry.

How do you pair introducing new technologies with the reduced rates that are expected?

New technologies generally result in cost reductions and savings over time. During the Covid-19 lockdown, we had a meeting with Total Nigeria about the Maxtube Duoline technology, which is relatively new to Nigeria. The technology lines carbon steel pipes with GRE [glass-reinforced epoxy] to eliminate water injection and gas well challenges with corrosion in pipes, which saves capex on high-end alloy pipes such as chrome tubing.

This technology is already familiar to Total in other parts of the world where it operates, and it is something the company is keenly interested in here. Other E&P companies such as Eni and SPDC [Shell Petroleum Development Company] are also interested in deploying this proven technology in Nigeria.

We have several other technologies adapted to Nigeria and available to clients right away. In addition, we are in ongoing conversations with various partners overseas to jointly set up manufacturing centres here in Nigeria. This will create jobs, reduce if not eliminate import taxes, reduce business costs and ultimately reduce Nigeria's dependence on forex. This applies to industries such as OCTG [oil country tubular goods], about which we are concluding talks with a Chinese partner to set up production locally.

The Covid-19 lockdown reiterated the need to set up local production and avoid ridiculously expensive air freight charges like we encountered, in addition to very high duties on steel importation. Imagine paying five times the average price for air cargo because there were no flights from Beijing or Shanghai to Lagos. This will erode any profit margins anticipated. The numbers clearly favour local production in Nigeria; it is the sensible and sustainable thing to do.

Do you see technologies that could enhance the country's downstream performance?
Part of our plans for BRADE Chemicals is to set up a blending facility. The market is there, and demand clearly outweighs supply several times over. The strategy is blending for the oil and gas and manufacturing industries, with more than 80% of those being along the Lagos-Ogun axis. Production chemicals is a market we are interested in. Most of the chemicals come into the country already blended, which attracts high import taxes. But with a blending facility in Nigeria, we will be looking at only 5% taxes on imported raw materials and creating jobs, amongst several other gains for BRADE and the country.

We have already finalised the plan, design, location and layout, so the main delay is financial. Hopefully, we can grow our partnership with Dow Chemicals a lot more in this area and offer service centres for core chemistries. We are also reaching out to investors to look at the opportunity.

How do you rate the level of emergency communication from NNPC and the government?
This is the first time I am seeing full alignment between NNPC, the Ministry of Petroleum and the Department of Petroleum Resources. This shows the industry is moving forward. It's an encouraging state of affairs. Covid-19 aside, we expect a lot of positive movements in the next few months, which will translate into value creation.

What is the role of local industry associations in Nigeria's ability to weather the crisis?
There is a lot of work to be done if we look at the organisations in Nigeria and how they can come together to move the industry forward. We know how powerful PETAN [Petroleum Technology Association of Nigeria] is, and we also have OGTAN [Oil and Gas Trainers Association of Nigeria] and several other organisations like that. The question is how much they can pull their weight together for the greater good of the Nigerian oil industry and not just their own interests.

The NCDMB [Nigerian Content Development and Monitoring Board] has shown huge capacity in this regard. A good example is how it has championed and supported three Nigerian companies with capacity for OCTG manufacturing. But now the question is this: Can those three companies pool resources together to execute pipeline projects such as the ANOH [Assa North-Ohaji South] gas project or Nigeria LNG Train 7 in terms of financing and project execution? There are a lot of opportunities to be harnessed if they can see the value in coming together. ■

Momoh Jimah OYAREKHUA
CEO
OMSA INTEGRATED SERVICES

Resilience through self-sufficiency in Nigeria

The Energy Year talks to Momoh Jimah Oyarekhua, CEO of OMSA Integrated Services, about how the lockdown in Nigeria has impacted business operations and why Nigeria is potentially the most resilient economy in the world. OMSA is a bunker supply, petroleum products trading, marine logistics and procurement company for the oil and gas industry.

How has your business plan been affected by the Covid-19 pandemic?
The pandemic has changed the whole world, and likewise our business strategy has also changed. Obviously, everybody adopts the "wait and see" approach for business today. On our side, it is not any different, as nobody knows when we will come out of this pandemic. We have to stay alive to do business, and that brings us to the issue of safety first. As a company, what we are currently doing is making sure that our staff members are well and that they remain healthy.

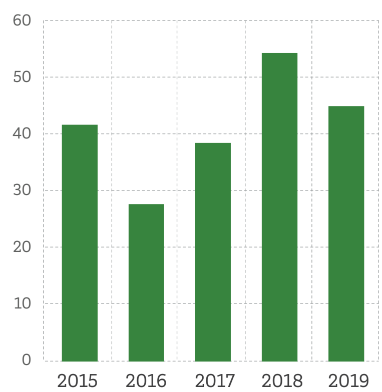
Where we operate in Nigeria, we were in full lockdown for March and April and we did our best to work from home and look after our business during this period. Of course, this delayed the test round for the OPAC [Omsa Pillar Astex Company] modular refinery, which was scheduled for the end of March.

We are waiting to see what measures the country is putting in place to ameliorate the current challenges and to see if those measures fit into our business model and allow us to schedule a new test round for the refinery. On the other hand, some other important parts of the refinery that were also meant to be integrated got delayed because the related expatriate staff could not travel here due to port and airport closures.

As of today [May 2020], the modular refinery is about 95% complete. We have some of our technical staff living at the refinery in isolation and doing some work, but the automation and control system will need expat input to be integrated, so that could not be done yet. If the situation normalises, we should be able to complete the installation of the refinery in no time.

How has your relationship with vessel owners been recently?
We actually entered into an advanced stage of negotiations even before the Covid-19 challenge began, but all businesses around the world started to experience losses later. In Nigeria, even if the business is not earning

Value of Nigeria's crude oil exports, 2015-2019 (USD billion)



Source: OPEC

income, we maintain full staff strength and are still paying everyone because we don't want to lay anyone off. So, we are reviewing our strategy now to see how to approach the future, mostly by seeing what will happen post-Covid-19.

Where do you see more opportunities emerging post-Covid-19?

The truth is that the dynamics of all businesses are changing today. If you look at the bunker supply industry, for example, the International Bunker Industry Association is currently issuing new guidelines. There are many changes that are coming, and we are monitoring all of these changes to make some informed decisions about how to carry on.

All industries have been affected. The refinery business is obviously one to be continued, and it can be managed even if it requires human interruption. On the logistics side, given that the oil prices dropped as well, we are also monitoring what is happening in the upstream.

What sort of opportunities can this crisis present for Africa regarding storage capacity?

Opportunity is one thing; ability is another thing. The income of most African oil-producing countries has dropped, and they are saddled with debt. I think banks in Africa are also going to see some defaults on financial obligations to them. All of this is going to affect the ability of these countries to invest in the type of infrastructure they need at this point. However, this does not stop companies from making projections and looking at the relevance of having a storage system in case there is another pandemic in the future.

Another point to look at is the relevance of oil in 20 years' time. Renewable energy is coming fast, and environmental cautiousness is becoming more relevant. The UK, for example, set the target of running all cars on renewables by 2050. So, countries such as

Nigeria have to think and strategise on the future relevance of oil.

So, the question for Nigeria is whether it should invest more in storage capacity or diversify its sources of income. In my point of view, investing in areas such as agriculture or renewables would make more sense than investing in storage capacity.

What would be a proper and profitable price for Nigeria's light-sweet crude?

It depends on the world economy. We see a lot in the news about China and the US and their crude utilisation, but this will really depend on how much crude is sold in the future. We will see trade arrangements between the US and China, but in reality, it is all about politics. Nobody knows what the future price will be. However, I think prices settling at around USD 40-50 per barrel, or above, allow countries such as Nigeria, which derives 80-90% of its budget from oil revenues, to ameliorate economic challenges.

How resilient is the Nigerian economy compared to its peers in Africa?

I recently read an article which stipulated that Nigeria actually has the strongest economy in the world because its people can provide everything for themselves: electricity, transport systems, water and almost everything Nigerians need. The government just gives a little support in these areas, unlike in countries such as the UK and the US.

My conclusion is that we are a very resilient country. I believe we will come out of this strong, but we will obviously have challenges. However, these challenges should be used as stepping stones to make us better and greater than we are today. ■

FORUM

What are the key growth opportunities for Nigeria's local companies in the post-pandemic future?

While Nigeria's oil and gas activity has been constricted during the Covid-19 crisis, opportunities are emerging in a new alignment that places local players at the forefront of the industry. Key voices from the industry discuss the major areas of growth for Nigeria's indigenous oil and gas companies in the post-pandemic future.

Engr. Simbi WABOTE
Executive Secretary
NCDMB

Opportunities for indigenous players are enormous. With international companies beginning to rethink their investments globally and trying to rationalise their presence in certain areas, indigenous players must be ready to capitalise on new opportunities and fill in the gaps left behind by internationals. The truth is that in a country like Nigeria, where we all depend on oil and gas, the sector will continue to play a significant role in our economic activities. Portfolio rationalisation will bring opportunities to indigenous players.

There are also plenty of marginal field development opportunities that indigenous players are looking at. Nigeria used to be heavy in terms of land and swamp operations. But today, most of the multinationals are moving to the deep offshore, leaving the onshore operations for local players. That area has not yet been exhaustively tapped by indigenous companies. Most of them are looking forward to making the most of these marginal fields in the coming years.

In addition to upstream, there are huge opportunities in petroleum products refining and product distribution for local players. The country's refining capacity is not adequate. We still import most of our refined products. We have a huge investment coming through the Dangote refinery, which is going to refine about 650,000 bpd of crude. It will be one of the biggest refineries in the world. We have smaller indigenous players who are investing in modular refineries to increase the country's refining capacity.

If we can refine most of our petroleum products, the sub-Saharan Africa region will be a huge market for us.

Covid-19 is a huge promoter of local content. We now must be independent and self-reliant; we have no choice. A key element of local content laws is the deepening of knowledge and increasing local participation to improve capacity. This not only applies to manufacturing, but to service delivery as well.

We must continue to develop the country by making all industries self-reliant. Knowledge transfer and support of IOCs, the government and even foreign manufacturers are required. Ultimately, the relationship between a foreign giant and a local entity should pay off for everybody in the long run. It is a better way of ensuring and sustaining value.

Travel is impacted now. The old idea of moving people around the world greatly complicates work programmes in oil and gas. Discussions are ongoing on setting up a state-of-the-art valve maintenance facility in Port Harcourt, including mobile units that can be mobilised to client sites.

Yemi GBADAMOSI
CEO
TAG ENERGY

Kayode THOMAS
CEO
BELL OIL & GAS

The biggest challenge for local companies is raising capital. We have been through this for many years, and last year we got some private equity investment in our company. That was on the back of many years of putting the building blocks in place and ensuring that we can demonstrate a lot on regulatory compliance issues, ethics and growth potential. This is what ultimately enabled us to raise some capital.

However, I am also mindful of the fact that it is very difficult for local companies to attract capital and build the capital base that is required to weather the storm when things get very tough. But it is still better than before, as the environment is more enabling nowadays for local companies.

It would not be far-fetched to say that one might still find some local companies that are not necessarily serious about building local capacity, but we are seeing a more forceful push from the Nigerian Content Development and Monitoring Board to ensure that local content goals are indeed achieved.

Using strategic alliances and partnerships to build the local capacity within the Nigerian oil and gas industry is also an important factor. Partnerships and alliances are at the heart of our company's strategy. The question is whether a company can attract foreign and even local partners. The value proposition has to be there, and synergies must be achieved to get to a win-win situation in which partners are willing to combine their resources to achieve a common goal.

ON PAGE 9

Nigeria's marginal fields bid round

While big offshore fields need big ventures, marginal fields require smaller indigenous companies capable of operating in an era of low prices. These assets have a lower cost of investment, ranging from USD 50 million-100 million, and promise short-term returns.

Ado OSERAGBAJE
Vice-President, Sub-Saharan Africa
BAKER HUGHES

New energy dynamics for Nigeria

The Energy Year talks to Ado Oseragbaje, vice-president for sub-Saharan Africa at Baker Hughes, and Francis Oganya, the company's country director for Nigeria, about how the crisis has changed dynamics in the global energy industry and how technology can bridge emerging gaps in its operations. Baker Hughes is an energy technology company with operations in more than 120 countries.

Francis OGANYA
Country Director, Nigeria
BAKER HUGHES

How has the crisis changed business dynamics in the global energy industry?

Ado OSERAGBAJE: If we look at the broad macroeconomics, 2019 was a transition year. Some major FIDs took place and others were set to happen in 2020 on the back of those. Projects such as Mozambique LNG, the Sangomar field development in Senegal and Grand Tortue in Mauritania and Senegal reached FIDs, and on the back of that Nigeria LNG's Train 7 came to an FID at the end of 2019. There were another five to six major projects that would have reached FIDs in 2020 inspired by these earlier ones.

2019 was also a landmark year for Baker Hughes, as we completed our exit from GE and repositioned as the global energy technology company. Also in that year, we made a commitment to reducing our net carbon emissions by 50% by 2030 and to achieve net-zero emissions by 2050. This was a pretty bold thing to do in 2019, particularly for an operator in the oil and gas industry. Then in 2020 you saw oil majors such as Total, Chevron and Saudi Aramco addressing the dual challenge of never-ending energy demand and the environmental impact of carbon emissions. This was the first time in my career that I saw industry leaders being very visible and vocal about what their commitments would be in this regard. For me, it was a huge step forward in our industry, and it also started at the right time, at the start of the year.

Then at the beginning of February 2020, the Covid-19 pandemic started to grow and spread out. As a result, many of these projects were put on hold or delayed due to a significant reduction in demand for virtually anything hydrocarbon related. In reality, we have three things happening: the collapsing demand; the geopolitical dynamics between Russia, Saudi Arabia and the US; and the actual physical aspect of managing the virus.

Even if the demand had stayed at 100% and been increasing, you would still have to address operationally how you keep production facilities running and stop people from getting infected and sick.

Do you expect an emergence of new technologies in sub-Saharan Africa as a result of this crisis?

AO: Yes, I do. Just to give you an example, in the past this interview would have taken two weeks to put together, and now we do it in this fashion (using an online teleconferencing platform). Is it perfect compared to a human-to-human interaction? Maybe not always, but it is the result of the current situation.

Microsoft Teams and Zoom are continuing to get better, and if you look at the cost of this meeting now, it is a fraction of what it would have cost three months ago holding it in person. This is a simple example of how technology is enabling us to continue.

> "Operators who want to continue to operate safely must explore technologies like remote operations."

I think some of this will become the norm in the future. Remote working is something we already had the capability to do. There has been a reluctance to adopt, but given the reality of today, operators who want to continue to operate safely must explore technologies like remote operations. There is a push to change the operating model, which will also make it more efficient and cost effective.

Last year, we launched a joint venture called BHC3.ai with a company called C3.ai to address the Fourth Industrial Revolution, which is about how you use data and a portfolio of AI solutions for better decision making to drive improved outcomes that oil and gas businesses can use today. The reason we went with C3.ai is that we recognised that no single organisation could do this independently; it requires you to collaborate with the different aspects of the value chain. No entity can have the domain expertise across all of that.

For instance, as Baker Hughes we don't have the programming capability or the software understanding in that depth to be able to do the design, while companies like C3.ai don't have the domain expertise in reservoir engineering that we do. Thus, there's a need for collaboration between the different industries to bring the right knowledge and expertise together to have a meaningful impact on the outcome for the customers' benefits.

It is early days yet, but we have some very important successes around reliability and operational efficiency, and we continue to add new workflows and new work streams to drive even more productivity and efficiency.

Have you encountered differences in how operators approach cost reduction?

AO: Yes. I think what's needed is a mindset of breaking away from the past. As an example, if I go to my barber after losing my job and ask him to give me the same haircut as before for half the price, it is an unrealistic expectation. The barber still has to pay his rent and his kids' school fees and meet other obligations. But I can bring my cousin to his shop as an additional customer, we can use a fan instead of AC, we can use grid power instead of using the generator – it is about doing things differently.

Reflected in the oil and gas industry, such changes can be seen in remote operations, additive manufacturing, improving our logistics base and rethinking the certification approach we take. We spend so much money on certifications and revalidation just because different operators reconfigure safety requirements and call them by different names. As a result, I need to spend an inordinate amount of time and money teaching my staff the same guidelines for each of the operators.

Francis OGANYA: Baker Hughes as a company is also deploying technologies to help operators lower their cost of operations. As you may be aware, in view of current realities most of the IOCs in Nigeria have cut back their capital spending by 30%. One of our technologies that drives efficiency is remote capability. To drill a well you only need to deploy two personnel instead of six. With this we are saving the space, the cost of transportation and other related costs, all these to the customer's benefit.

Regarding chemicals, we now use reduced volumes of chemicals to process the crude, saving operators huge amounts. So, apart from lowering rates, we offer technologies to save on costs and drive efficiency. ■

Built for challenges

Yemi GBADAMOSI
CEO
TAG ENERGY

The Energy Year talks to Yemi Gbadamosi, CEO of TAG Energy, about expected trends in activity and the need for continued production. TAG Energy is an integrated services company that offers oilfield products and support services to the Nigerian oil and gas industry.

How has TAG Energy maintained operations throughout the Covid-19 crisis?

TAG Energy was built for challenges. Established in 2007, we grew during the 2008-2009 economic meltdown. Resilience has been one of our biggest strengths, on both the individual and business entity levels. We manage our resources optimally; we run a very lean and agile business model that promotes the use of technology, systems and processes.

We started an initiative to make a custom-built portal about three or four years ago. We were certain it would bring increased efficiency to business and revolutionise the way we respond to our clients. Now, everything is on our portal, from our HR systems to our accountant's systems and visitor booking.

Even before Covid-19, we were looking at the possibility of remote work. I travel a lot and need to know what is going on while I am on the road. We also have many women on the team and are prepared for their maternity leave. We have a management system in the cloud that everybody can access. We hire remotely and employees work from home.

How will the current environment affect activity levels in the services sector?

We are not expecting more activities in maintenance. These are expected to be scaled back. Shutdowns are ongoing and most routine activities are being combined into one major shutdown. It is easier for them to do so, as bringing people in and out to work on these projects is difficult. Nigeria is still dependent on foreign expertise to support activities in the upstream and midstream sectors.

> "Shutdowns are ongoing and most routine activities are being combined into one major shutdown."

Purchases are also ongoing. Our business has grown exponentially. We added French company Valco Group as one of our major partners. They support us in valve maintenance and assembly in Nigeria. We also added Rockwool as an OEM partner in preparation for Train 7. We have seen a lot of business because of these productive collaborations and we hope many projects will continue to move ahead.

All in all, we have seen a drop in requests from some of our customers, but we continue to see a steady flow of business. They need to continue to pump crude even if the price is negative. ■

Ayo LUQMAN SALAMI
Partner
KPMG NIGERIA

A changing landscape

The Energy Year talks to Ayo Luqman Salami, partner at KPMG Nigeria, about the impact of the current crisis on Nigeria's upstream sector, prospects for marketing the country's crude and how services industry players can adjust to recover from the downturn. KPMG Nigeria provides audit, tax and advisory services.

Nigeria's projected 2020 oil production:

1.94 million bopd

Projected contraction in the country's GDP in 2020:

3.5%

What adjustments did the government make to its annual performance plans in light of the Covid-19 pandemic?

The benchmark price for crude oil in the government's 2020 budget was originally anticipated at USD 57 per barrel. However, the ongoing global pandemic and falling oil demand prompted the government in March to amend its budget to assume an oil price of USD 20 per barrel. The 2020 oil production level was projected at 2.4 million bopd and in June it was also revised downwards to 1.7 million bopd.

The government also predicted that the country's gross domestic product would contract by about 3.5% this year, which of course meant that we were definitely going into a recession. The government deficit for the year was projected to be around NGN 4.6 trillion [USD 12 billion] but it was later revised to about NGN 5.365 trillion [USD 14 billion]. This is understandable because the country must spend to jumpstart the economy out of the recession.

Those were the variables as of June 2020, but a lot of things have changed since then. Interestingly, the benchmark oil price was revised upward slightly from USD 20 to USD 25 per barrel on the back of the fact that we have seen a gradual economic recovery since the lockdown ended. Some of the local industries have started to open up and factories are returning to production.

The projected oil production level was also moved up from 1. 7 million bopd to 1.94 million bopd. This is to signal the government's hope that in the course of the year we should be able to ramp up activities and find buyers for our crude.

What has been the impact of the economic and financial crisis on the country's upstream sector?

Having the government's anticipated crude benchmark price fall from USD 57 to USD 25 per barrel puts a strain on the country's ability to generate revenue as it leads to a significant drop in revenues derived from the oil sector. This means that the government will not be able to fund its cash obligations to the joint venture partners, the IOCs. We have to be prepared to experience a drastic fall in exploration and production activities in the sector as a whole.

I have always said that government should have no business in oil exploration and production. One of the solutions the government should look at is exiting the oil exploration and production business and the JV model, selling its stakes to the private sector and focusing purely on regulation and policy making, as well as collecting royalties and taxes.

It has also been proposed that the current unincorporated joint venture arrangements (UJVs) with the IOCs could be converted to incorporated joint venture agreements (IJVs), where the NLNG model would be used to run those businesses and the cash call requests would no longer be there. We have seen how this works in other jurisdictions.

In the '80s and '90s, when we had this kind of crisis in the oil business, the government engaged the IOCs to discuss how to maintain the minimum level of activity in the oil sector. They then entered into a memorandum of understanding with the IOCs which entailed granting them a minimum margin for each dollar spent on exploration and production activities. So the IOCs were encouraged to keep spending and exploring for oil and that led to the results. Even though the oil price was below USD 10 per barrel then, the oil companies were still spending on exploration and production activity because there was a guaranteed margin per barrel of oil produced or per barrel of oil exploited.

We are facing a similar scenario now where instead of rolling out changes to the tax codes the government should also focus on having productive roundtables with the IOCs to agree on how best we can sustain exploration activity going forward.

> "Indigenous service players are already looking at the option of mergers and acquisitions to remain profitable."

What are the prospects for marketing Nigerian crude in the months to come?

Looking at the demographics of our oil markets, Asia has always played a crucial role in buying our crude. India, for instance, has always been the largest export destination for Nigerian crude. However, with India's oil imports hitting a 10-year low this past summer, our government needs to explore new export markets.

We all know that in the last couple of months there has been a glut in the oil supply because demand was not there. But as the lockdown eases in each of these economies, there will be increased activities. Still, the government needs to look at other markets, particularly other South Asian markets where we can market our oil with a much more competitive pricing scheme.

When can we expect the country's downstream sector to achieve full deregulation?

We saw the government reduce its pump price of premium motor spirit (PMS) from NGN 145 [USD 0.38] per litre to about NGN 125 [USD 0.33] per litre, which was a move welcomed by the industry and considered a signalling of the deregulation of the downstream sector. PMS is currently topping the chart on the volume of refined petroleum products imported into the country.

However, if you ask the stakeholders in the downstream sector, they will tell you that the real solution is not in price modulation, which the government is trying to do, but in the complete deregulation of the downstream sector.

> "The government should focus on having productive roundtables with the IOCs to agree on how best we can sustain exploration activity going forward."

The government and NNPC should focus on policy making, regulation and the collection of taxes and royalties and let the private sector deal with the importation of PMS so it gets to every nook and corner of the country. In other words, they should leave the price of PMS to the forces of supply and demand. I have seen how this has benefitted the economy in the past, and it is clear the task should be left to the private sector.

How do you view the government's plans to give up controlling stakes in its refineries?

The government is looking at implementing a different model compared to what has been used in the past. They intend to attract international players into the refining sector through a bidding process.

If the government really walks the talk and goes by this plan, the four refineries can be outsourced to an independent third party who will then run the operation and maintenance for a specific number of years at a pre-arranged fee paid by the government. During that time, the government will have enough time to determine what exactly to do with the refineries – whether to use the NLNG model or sell it off completely. If this model of operating the refineries comes to life, then refining can become a very profitable business sector in the country.

How can the services industry survive the downturn?

The services industry is largely dominated by the private sector with very little government investment. The real issue is that because of the downfall in the oil price that has led to the IOCs and the oil producers renegotiating their contracts and asking for rate cuts, the services industry has been forced to enter into survival mode.

Indigenous service players are already looking at the option of mergers and acquisitions to remain profitable because most of them are heavily indebted to the banks. Loans were taken when the oil price was USD 60-70 per barrel and it's on the economics of those prices that the loans were taken. However, because of the fall in oil price, it is difficult to service those loans now with the exorbitant interest rates.

One way out for these players is to explore merging with one another, consider cost-cutting measures and look at their supply chain models to ensure that they get the best out of their suppliers. However, for the subsidiaries of the international companies that operate in that sector, I think they might need to leverage the cashflow position of their parent company – which might still have some cash surplus in other jurisdictions that have recovered a bit faster than Nigeria – and use that to address their own cash shortage or operational challenges in Nigeria in the short run, and a complete review of their business and operating model in the long run. ■

Kayode THOMAS
CEO
BELL OIL & GAS

An eye for opportunity in Nigeria

The Energy Year talks to Kayode Thomas, CEO of Bell Oil & Gas, about opportunities for local companies to build capacity in the aftermath of the Covid-19 crisis and the pandemic's impact on efforts to build and sustain local capacity. Bell Oil & Gas is an indigenous oil services company in Nigeria.

To what extent has your business been affected by the pandemic?

The last couple of months have been trying times; there is no doubt about that. It has been very, very difficult and unprecedented. We have been around for nearly two decades and we have gone through some tough periods, but the last couple of months have been rather unique in the sense that this is uncharted territory.

Nevertheless, the implications are very real in terms of the impact on our business and on the industry as a whole. Clients are coming back to renegotiate contracts they already have with us, putting them on hold or in some cases cancelling them. So, based on the last couple of months, it is tempting to forecast doom and gloom for the rest of 2020.

However, I see this as a temporary situation, and of course this is not the end of the oil and gas industry. Things will surely change; the question is who will be around when things change. Companies are taking action to weather the storm and to ensure that they are around when things change for the better.

Is there room for more entrants into Nigeria's oil and gas industry?

There is always room in any industry. We entered at a time when the industry was already mature. It is even more mature today, but there is no reason why companies could not join, provided that they are clear on their value proposition, what they bring to the table and what competitive advantages they have.

However, for new entrants these days, it is certainly doable with all the focus on local content and capacity building. Even existing companies have to raise their game in that regard to ensure that there is a lot more to be seen on what has been done locally.

Can the current situation be an opportunity for local companies to build local capacity?

It can be an opportunity, but if care is not taken, we can see a downturn in that area as well. Following the 2015 crisis, we were slowly but surely coming out of that slowdown by the end of 2019. There were a lot of exciting projections and projects, and then Covid-19 had other ideas. We are definitely experiencing another slowdown. If you have to halve your revenue projections (or worse), halt certain ambitious initiatives or start aggressive cost-cutting measures, it is very difficult to see the growth path in the short term.

However, our strategy is very simple: apply the brakes in some areas to keep our head above water and dig deeper to make sure we are more innovative in the way we do business development, service our clients and keep them close. But at the same time, we are going to accelerate in other areas to put the company in a good position for projects that will inevitably emerge after the crisis.

This is one of the reasons it may appear surprising to some people that we are still forging ahead with some major projects in the company. We are building two plants: a valve assembly, testing and maintenance plant and an OCTG [oil country tubular goods] pipe threading plant. We acquired the land late last year at the Lekki Free Zone in Lagos and completed all architectural design and an environmental impact assessment.

After the Covid-19 pandemic broke out, we could not proceed, but this is a temporary delay and we are continuing negotiations with our contractors. We firmly expect that we should be commissioning this facility by this time next year.

On major projects like the NLNG Train 7, our first MoU was with Foster Wheeler back in 2007, which shows how long we have been tracking, and it took another 13 years for that project to begin to look like it was coming to fruition. The question we ask ourselves is what we can bring to the table. We know we can play a big part in piping, composites, flow control, valves and rotating equipment. This is a project that is going to happen; the government made that clear recently following the signing of the contract. It is going to run for four to five years.

What local companies should be doing is starting to position themselves for projects like that. It is tough to make those decisions in times when we have to try to keep body and soul together. Even our company had to review over and over again why we should continue with certain projects. But this is still a time for us to capitalise on the emerging opportunities.

> "This is still a time for us to capitalise on the emerging opportunities."

Some of the new waves of this current situation are bound to stay. Even post-Covid-19 when everything gets back to normal, I am sure that the number of physical meetings will be very limited if one looks at how much more efficient we can be in utilising our time and how much more productive we can be. There are certainly opportunities and a light at the end of the tunnel, even in a dark period.

What is Nigeria's level of attractiveness for foreign investors?

The level of collaboration is there, but there is massive room for improvement. Sometimes I feel we still operate in different silos, although we are trying to achieve a common goal. Gas is going to be huge for Nigeria. There is talk about the ups and downs of the oil price and how it will rebound, but gas does not have that volatility yet. Gas is going to be key for the country, and it has just been tapped.

When one looks at the industry as a whole, there are several gas projects that have been launched earlier but which have been slowed down for now. But I am sure they will come back to the table. The country is well positioned, and the potential has always been huge. Potential has never been an issue for Nigeria; instead, it is about implementation, utilisation, discipline and enabling the right environment.

I keep going on about making sure that we recognise what our strengths are, what our weaknesses are, and how we can fill those gaps and create an environment that attracts foreign players. There are many foreign entities that want to operate here, but if the environment is not conducive and if fiscal policies are not attractive, they will hesitate.

Companies are here to make profit. Yes, you must add value, but if you are not interested in making profit then you might as well set up a charity. If foreign companies are coming to the country, we have to make sure it is beneficial for everybody. As long as parties are able to work together, understand these things and fine-tune what needs to be fine-tuned, then we can begin to see some realisation over the coming years. ■

Kolapo SODEINDE
Managing Director
AERIAL ROBOTIX

Focus on the future

The Energy Year talks to Kolapo Sodeinde, managing director of Aerial Robotix, and Tudor Moss, the company's CTO, about the difficulty of dealing with rate reduction requests and maintaining supply chains and training pipelines with travel restrictions in place. Aerial Robotix is an indigenous company that provides UAV services in the West African region.

Tudor MOSS
CTO
AERIAL ROBOTIX

How do you assess the impact of the current crisis on Nigeria?

Kolapo SODEINDE: The challenges are similar in many developing countries. Covid-19 testing is currently quite low, which is an obvious issue moving forward in locating people who are infected so as to stop the spread of the virus. It has trickled down to the oil and gas industry in such a way that the IOCs are still trying to figure out the protocols for getting people to work offshore while stopping the spread if people get infected.

Until they figure this out, there is not going to be too much movement. Only essential work can be done now. Even exploration is slowing down a lot as the industry focuses on production and maintenance. Of course, the oil price drop didn't help, especially when coupled with Covid-19.

Tudor MOSS: Oil and gas is our biggest market, and all the projects that were lined up for this year are on hold. Oil and gas companies are trying to find a way to get people offshore. Some people are stuck offshore as modes of transportation have shut down. There are very few crew changes because they can't bring people in and out. If we want to go offshore, then our personnel have to go into 14 days of isolation.

Because the oil price has crashed, clients are asking for relatively large reductions to soften the blow, which is understandable. The same happened in 2014/2015 when everything was cut by 30%, so after five or six years we have come full circle, while trying to maintain the same level of service.

I believe that some IOCs will put exploration on hold until 2021 while they focus on maintenance and production. They will be looking for cost savings in line with the current climate, so they would benefit greatly from the use of UAVs for inspection, which is the core of our business. There is still a potential market if we can get our personnel out there to do the inspections.

We have also spent weeks talking to multiple medical facilities to do antibody tests in preparation to mobilise when need be. We did some tests which turned out negative and were confirmed to go offshore, but then suddenly everything was put on hold as the available antibody tests are only 80% or 90% accurate. Because of the global uncertainty, people are reluctant to make decisions based on today's information.

What new technologies can you offer to clients to optimise costs instead of using rate reductions?

TM: Over the past two years of our operations, we have been introducing new technologies in Nigeria. Technology advances daily, and everyone in this sector around the world is looking for newer technologies to do things quicker and more efficiently, which ultimately cuts costs. We know our clients want this, but they are now so busy dealing with Covid-19 that they don't have much scope to discuss new opportunities. Once borders open up again and the virus is under control, the world economy will start to recover and we are optimistic that these new technologies will be revisited by our clients.

We still have a skeleton team working in the office because we have to continue with training and maintaining our equipment. We have incurred costs during this period for maintaining safety as well as skillsets, even though no work has been coming in.

KS: While everyone is busy dealing with Covid-19, our clients have scaled down their operations. In this situation, it is hard to get any of them to definitively say what is planned for us in the near future. This puts us in a difficult position, as we have been looking into new equipment for extra cost savings and efficiencies, but like everyone else, we are still in the dark regarding the commencement of work.

Since our sector is new in Nigeria, some of our issues are the lack of trained indigenous pilots and the purchase of foreign equipment. So, a large portion of our costs are foreign. We have had to look into reducing rates while increasing our expenditure through the purchase of new equipment. This new equipment has many advantages, but the biggest is the reduction in operational hours, which brings cost savings to the client.

We understand the issues going on in the world right now, so we try and do all we can in catering to our clients' needs while still offering the same quality of service. It is very difficult to make those cuts, but it is something that we and most other companies cannot avoid.

How challenging will it be for Nigeria to develop a robust local supply chain for your sector?

TM: We can train teams and people, but when it comes to purchasing equipment or manufacturing within the country, I think that is still some way off yet, although the country is moving forward in leaps and bounds in this respect in more established sectors.

KS: On the technological side it is going to be very difficult. This gives us an opportunity on the training side to ramp up our training schedule. We previously sent people to Europe to get extra training, but now we are trying to revamp our training schedule locally and get more Nigerians to become pilots and surveyors. I think this is the way forward for now, until our sector matures to the extent where it is more feasible to manufacture in-country. When this happens, it should bring additional cost savings as the devaluation of the naira always has a negative impact on the purchase of foreign goods.

Are there any key projects in the industry that might present opportunities for you in the future?

KS: Potentially, the majority of them. Even before they start, inspections and surveys have to take place. Our clients know the kind of service we deliver. We have already done surveys and inspections for these companies, so they know our capabilities. We are in constant contact with our clients and they are eager to deploy our services, but the uncertainty of this pandemic has left a lot of things up in the air. All in all, there are opportunities for sure, but we don't know when they will be realised.

How confident are you in the country's energy future?

KS: First of all, Nigeria has to tackle the maintenance issue. Production needs to be ramped up, which will be very difficult without a solid maintenance programme. It also looks like the oil price is not going to go back to previous levels anytime soon, so it would be prudent to focus on maintenance and incrementally increase production to sustainable levels.

> "Nigeria has to tackle the maintenance issue. Production needs to be ramped up, which will be very difficult without a solid maintenance programme."

TM: People need to look at the lifespan of the assets they have. I believe some companies are already looking at the extension of their assets' lifespans, and others will follow since they are likely to suspend near future exploration. They will look at which asset is profitable and what needs maintaining or upgrading. ■

NLNG Train 7 on track

In an era when the dual shock has caused major hydrocarbons projects to be shelved, Nigeria is proving resilient. Nigeria LNG (NLNG) recently sealed a multi-billion-dollar EPC contract which will kick off the construction of Train 7 in its Bonny Island LNG complex. The expansion will consolidate the nation as one of the world's most prominent gas hubs, and help leverage its abundant gas reserves.

NLNG's current LNG production:

22 million tpy

NLNG's LNG production after Train 7 is completed:

30 million tpy

Share of global LNG exports originating at the Bonny Island complex:

6%

NLNG is a joint venture between NNPC (49%), Shell (25.6%), Total (15%) and Eni (10.4%). Situated on the Bight of Biafra, the Bonny Island LNG facility plant holds six liquefaction units, which have a combined production capacity of 22 million tonnes per year (tpy) of LNG and 5 million tpy of NGLs. Feedstock of 99.1 mcm (3.5 bcf per day) is obtained from various fields in the Niger Delta.

The LNG produced is channelled into 16 long-term sales and purchase agreements (SPAs) with 10 different buyers. Galp and Total recently renewed their deals, each for a 10-year span starting in 2021, while others expect to do the same soon. The complex generates 6% of global LNG exports.

FORWARD STEPS: In a time of crisis, NLNG has proven its resilience by taking the FID to go forward with the construction of the greenfield LNG train. In May 2020, the EPC contract was awarded to an alliance of Saipem, Chiyoda and Daewoo. The total value of this deal exceeds USD 4 billion, where Saipem, as the leader, will have a 60% share, which equates to USD 2.7 billion.

The expansion will include the construction of a 7.6-million-tpy liquefaction unit, a storage tank of 84,200 cubic metres, a condensate tank of 36,000 cubic metres and three gas turbine generators. With the new train, Nigeria expects to increase the plant's total LNG capacity by 35%, reaching 30 million tpy. Following the same design used for Train 6, the venture aims to deliver its first LNG shipment by 2024.

The Train 7 project reveals how Nigeria is weathering the Covid-19 storm. The entire value network of the venture is set at USD 10 billion-12 billion. This includes the EPC phase and the development of natural gas assets for extra feedstock, as well as new pipelines to supply it.

The financial arrangements are complex. USD 3 billion will be financed using a multi-tranche funding scheme wherein an array of third-party actors, including export credit agencies (i.e. KEXIM, K-SURE, SACE), development finance institutions (i.e. Afreximbank, Africa Finance Corporation), 16 international commercial banks and 10 local banks will participate. This sets a precedent in the sector, as it represents the first large-scale LNG project funded by multi-source corporate financing.

Such enthusiasm among investors is expected to entice further inflow of FDI into the country. “We are quite pleased that the Train 7 EPC deal was signed during these difficult but crucial times,” Chief Timipre Marlin Sylva, minister of state for petroleum resources, told The Energy Year. “It tells the global investment community that Nigeria is prepared to beat the crisis.”

CREATING OPPORTUNITIES: Train 7 comes at a difficult time. Experts forecast that natural gas demand will fall by 2% this year, affecting the price for spot LNG, which will remain low until 2021. By contrast, the production of LNG has kept its pace, as plants are designed to run at high utilisation rates. This has led to an inevitable supply glut, which has left many Nigerian LNG cargoes adrift with no buyer in sight. Those under SPAs are delaying deliveries by easing up shipping speed or chartering longer routes until prices pick up.

Given the circumstances, NLNG has been compelled to adopt a series of flexible measures that guarantee a controlled start-up of the project. EPC works will be limited during the first 12 months while major manufacturing will remain on hold until the situation normalises. Despite the challenges, the fact of Train 7 being a five-year term expansion is ideal, as it will boost local development, giving time for the sector to recover.

Most importantly, the project will be a native incubator of opportunities. At its peak, its construction is expected to employ more than 10,000 workers, with the total in-country engineering man-hours set at 55%, surpassing the level stipulated by the Local Content Act.

More than 70,000 tonnes of material will be used to fabricate the condensate stabilisation unit; non-cryogenic vessels, tanks, flare systems and pipe racks which will be assembled locally; and all LV and HV cables, valves, protective coating, and sacrifice anodes will be purchased from indigenous vendors. This will reactivate the local supply chain but also create spinoff opportunities in the areas of civil construction, logistics and maintenance.

The Train 7 project will have a major impact on Nigeria's energy projections. NLNG expects to increase its annual shipments from Bonny Island to become the fifth-largest global LNG supplier. The government will generate up to USD 20 billion from these activities, a vital boon for its economy.

In addition, the expansion will increase the plant's total LPG production, which today stands at 1 million tpy. The demand for LPG has grown in Nigeria over recent years, and Train 7 will cater for the domestic market, with NLNG taking more than 40% of the market share.

Lastly, the need for additional feedstock for the new train will ramp up upstream activities in the region, developing non-associated gasfields and reviving stranded gas assets. “The signing of the LNG Train 7 EPC contract is a clear testimony to the country’s huge undiscovered gas potential,” Engr. Sarki Auwalu, director and CEO of Nigeria’s Department of Petroleum Resources, told The Energy Year. “We have great in-country capacity and potential for gas-based industries that need to be developed.”

A GAS-FUELLED FUTURE: Nigeria is a gas haven within Africa, holding around 5.4 tcm (190.7 tcf) of proven reserves. The government has underlined the need to increase its non-oil-related backlog by shifting into gas as a more sustainable source. As managing director of NLNG Engr. Tony Attah said: “Nigeria has ridden on the back of oil for more than 50 years, it is now time to fly on the wings of gas.”

And indeed, energy paradigms seem to be shifting in a country that has

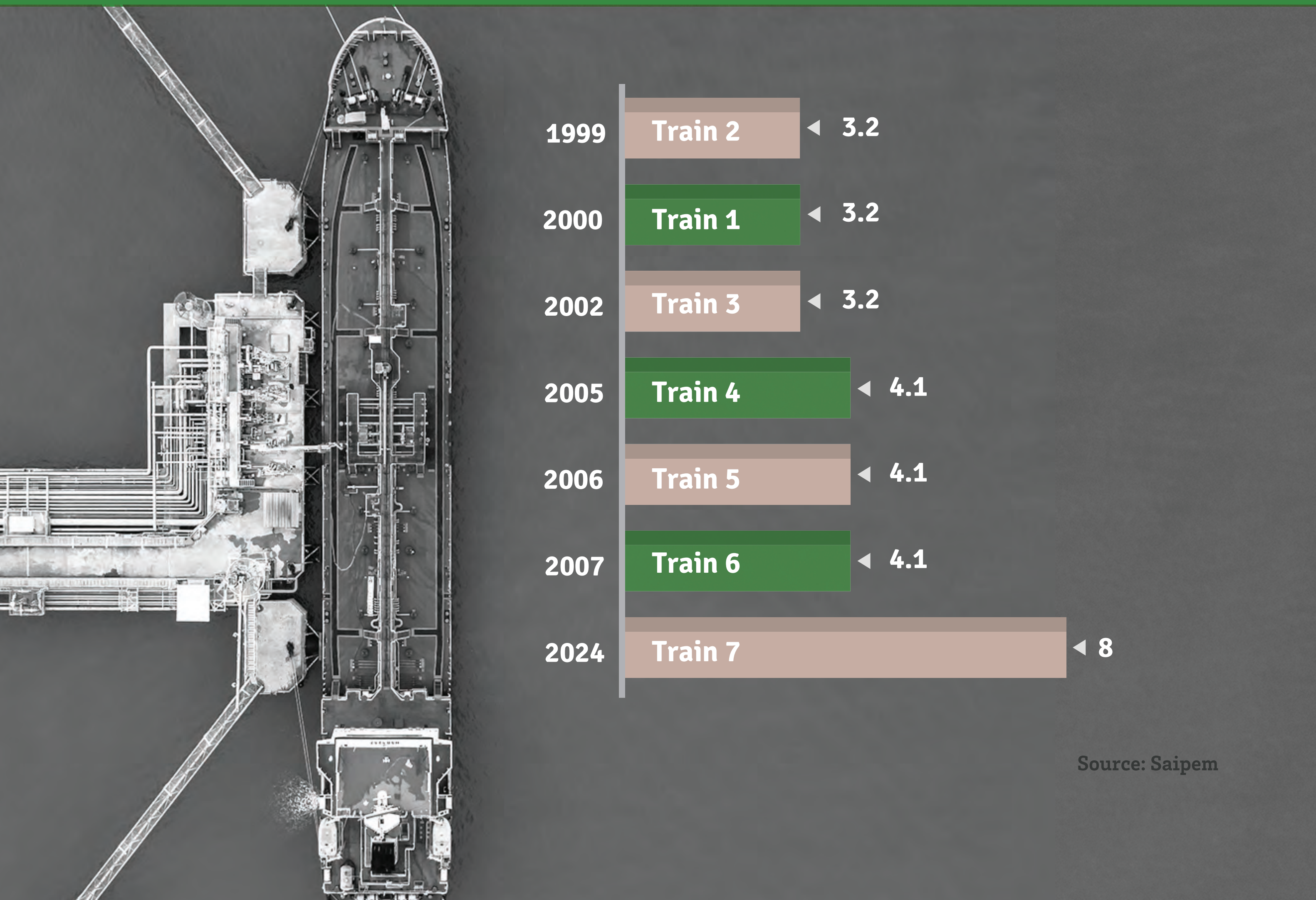
declared 2020 the “year of gas.” Given the oil crash, strategies to diversify into natural gas have strengthened. NNPC’s larger ambition is to increase the number of trains at Bonny Island to 12. LNG demand is expected to double by 2040, so the expansion of this complex will be vital to meeting the world’s future energy demand, and will remain a keystone in the nation’s growth agenda.

Similarly, Nigeria’s gas output is expected to rise in coming years, as seen in the efforts made by IOCs and local E&P firms to exploit non-associated gasfields. So far, gas has been mainly used for LNG exports, while only 10% is destined for domestic consumption.

The country has struggled to maximise its gas value for domestic use due to frail infrastructure and an unfavourable regulatory regime. However, NNPC has made laudable efforts to reverse the situation. In February 2020, the Nigerian Gas Transportation Network Code was launched, aiming to integrate the local gas market. This new regulation is poised to advance local gas infrastructure, promote gas-to-power and gas-to-industry projects, and decrease gas flaring.

All in all, the government is making inroads for the establishment of LNG, LPG and CNG initiatives, setting firm grounds on which projects such as Train 7 will run efficiently in the future. ■

Capacity of trains at Bonny Island LNG facility (million tpy)



Source: Saipem

Nigeria's Train 7 timeline

2018

July

The FEED contract is signed under a dual-feed process.

2019

March

NLNG and Nigerian Content Development and Monitoring Board sign the Nigeria Content Plan for the Train 7 extension.

September

NLNG issues a letter of intent for the EPC contract to the SCD-JV consortium formed by Saipem, Chiyoda and Daewoo.

December

NLNG stakeholders take the FID for the Train 7 project.

2020

May

NLNG officially awards the Train 7 EPC contract to the SCD-JV consortium.

Source: NLNG

In trying times, look to align

The Energy Year talks to Dimeji Bassir, CEO of Ofserv, about the importance of stakeholders sharing a vision and the prospects for Nigerian companies in the marginal fields bid round. Ofserv is an oil and gas services company that works at all stages of the country's hydrocarbons value chain, particularly in drilling, surface/subsurface engineering consulting and facilities maintenance/inspections.

Dimeji BASSIR
CEO
OFSERV

To what extent can you accommodate further rate reductions?

There is one magic number which has been thrown around, 40%, which presupposes that there were 70-80% margins or more to start with. But the reality is, prices never went back up to their pre-2015 levels. In Nigeria, rate reductions are approached in a reactionary way. We need to align and seek out existing opportunities to challenge certain legacy practices through a fundamental shift in operating philosophy. How do we rethink the prevailing operating and contractual models to derive efficiencies? Where do we have redundancies? Where and how can risk/reward be better aligned between client and contractor?

For example, in the way we drill wells, what aspects are considered nice to have as opposed to absolute necessities? Thinking about it this way, you would likely end up with higher cost efficiencies. But the mentality is: I am the big dog and you do my bidding as the contractor – go on, cut 40% of your rates. This is totally different from the scale-down approach, where there is a stakeholder alignment in terms of a shared vision and a shared goal, where you cut a lot of the redundancies and there will be a general realignment across the stakeholders.

Where do you carry out more work in this current situation?

We were privileged to have provided Nigerian content support to Saipem at the bid stage for NLNG Train 7 and are poised to be part of the success story on the project going forward. Naturally, there is a lot of attention on that project and competition among service providers is intense. It is an obvious area of opportunity for us because of our engineering, design, procurement and construction capabilities. We recently formed an alliance with a technically strong engineering company that offers niche services out of North America and India. They also had the Train 7 project on their radar, and were looking out for a Nigerian partner.

It is a great match for us as we have limited capabilities in some of the areas where

> "We need to align and seek out existing opportunities to challenge certain legacy practices through a fundamental shift in operating philosophy."

we have been supporting Saipem in the bid stage, such as providing training on engineering design software. Organically we could take this forward a little bit, but on a larger scale our alliance with Ingenero greatly solidifies our position.

Could the Train 7 project serve as an example that will further digitalisation?

Looking at plants, digitalisation comes into play where the industry begins to look at areas where they can design some IoT-type aspect into a project. The managing director of NLNG asked the question of how they could retroactively introduce some digital concepts into the existing LNG trains. This is purely from an operational and maintenance perspective. It is critical to infuse that kind of thinking from the beginning.

However, regarding the activity of design, I can give you a good example. I know a number of Nigerian engineering companies who were unable to execute any work for the first two months of the lockdown, primarily because their offices were locked down, and all their data were on physical servers in the office. Now you ask yourself the question: Why have cloud-based servers not been adopted yet, after being around for at least five years? Perhaps it is a cultural thing, or the industry in general not being forward-thinking enough.

What are the prospects for indigenous companies in the marginal fields bidding round announced in June?

Speaking of Train 7 or the new bidding round, the current president supports these initiatives as he sees them as positively projecting Nigeria's image and benefitting Nigerians in many ways. As a company we see an opportunity here, and regarding digitalisation there is a lot we are contributing to the process from our subsurface consulting capabilities.

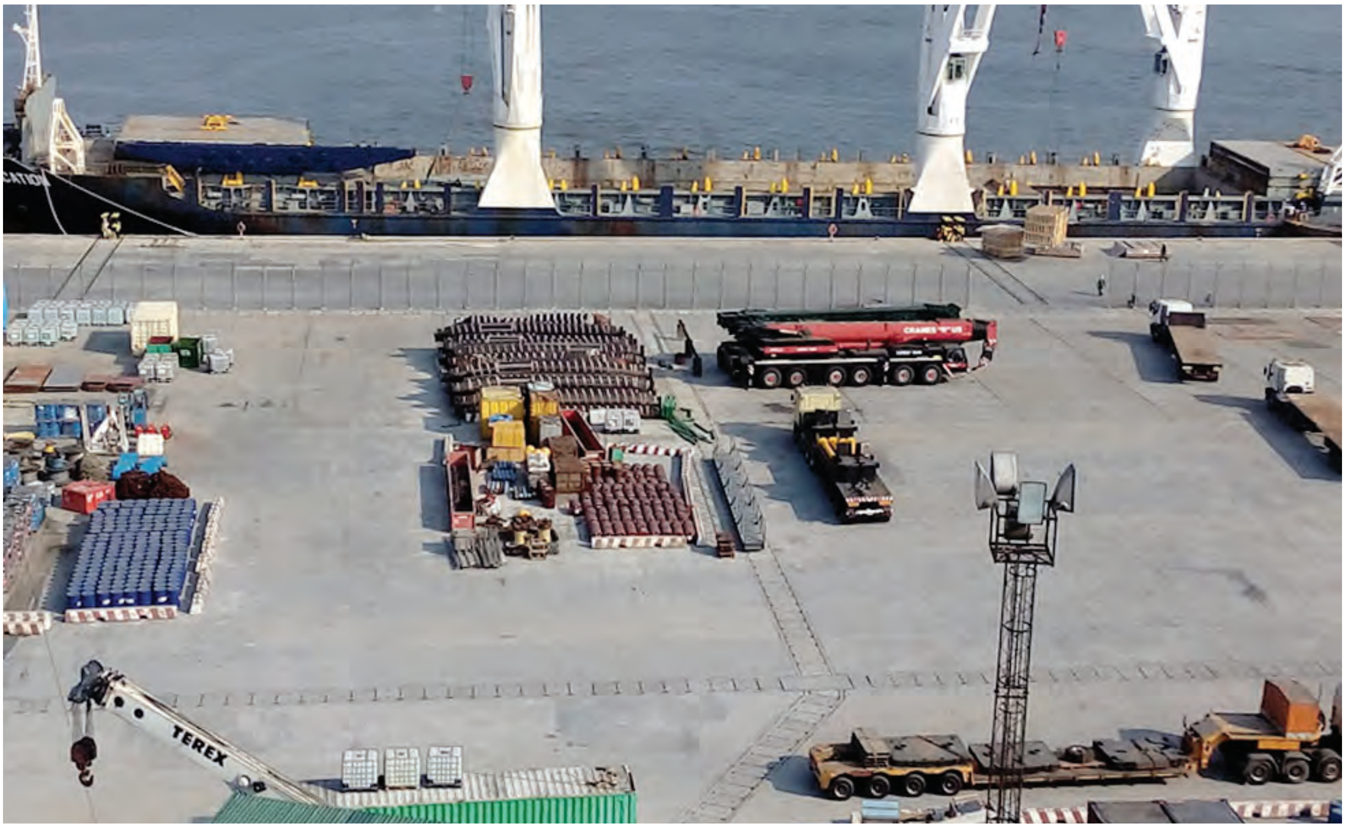
Funding sources for the petroleum industry are thinning out globally. Exxon and Shell, as massive and strong as they are, today are going through very challenging times in their ability to fund capital projects. So you can imagine the level of challenge for those Nigerian companies who would be the beneficiaries of the marginal fields. I think funding will be extremely challenging for them. But if on paper the process is transparently executed and results in a few Nigerian companies being awarded marginal fields, then it is a good thing.

The Nigerian government is obviously supportive of Nigerian companies taking on these fields. You want to encourage them rather than be too punitive when they have not met the minimum work requirement. While overall it is not auspicious in terms of timing, we will see where the bid round goes. ■

Seni EDU
CEO
EKO SUPPORT SERVICES

Silver linings in Nigeria

The Energy Year talks to Seni Edu, CEO of Eko Support Services, about the pandemic's impact on Nigeria's logistics sector and how the company is adjusting its operations to tackle new challenges. Eko Support Services is a Nigerian-owned logistics company.



How has Nigeria's logistics sector been affected by the pandemic?

Logistics operations have to continue somehow as many items in Nigeria are import-dependent. Ports have remained open. The logistics of moving personnel has been challenging as most of the public transport network has been shut down. We had to hire buses and adjust shift times to cope.

Regarding port operations, the president issued a directive that any vessel coming into Nigeria's seaports had to spend 14 days on the water before entering the port. This caused an issue at the beginning, especially for vessels coming from nearby countries only one to three days of sailing away. There was no point in sailing two days and then waiting at anchorage until 14 days since the last port call.

This rule was later adjusted to apply only to vessels coming from European and Asian countries, as that is where the centre of the epidemic was at that time. That adjustment created extra procedures, with port health authorities having to go offshore to test the crew and then quarantine the vessel in case of infection. When China itself locked down, that also affected the importation of many items.

In the oil and gas sector, we had two projects cancelled by June 2020. With the dual shock of the oil price crash and the pandemic, even if they had already spent money to mobilise, clients decided to shut down projects. For offshore, most companies continued to work, and it has been challenging to find support services for that – for materials, technicians or spare parts. It also raised costs as you need to take extra precautions and things take a bit longer. All in all, we've managed to keep the wheel moving, and now we're seeing a bit more activity.

Have you faced any challenges regarding your water treatment plant?

The main challenge has been maintenance. Just getting the chlorine or the personnel for this has been difficult. Or if there is any technical problem, even if we can get the technicians, they've had issues getting the spare parts that we don't have in stock, as the supplier is not able to provide them or

> “We have found that by working remotely, people make fewer mistakes.”

get them into the country. Some cranes broke down simply because we could not get them repaired for 10 weeks.

Have you been able to utilise this downtime for in-house advancements?

We accelerated the upgrade of our ERP [enterprise resource planning] system. Regarding remote work, for the operational personnel there is no substitution as they have to be there physically. However, for support roles such as documentation, planning and finance, the work can be done electronically. So, this has been more about how we can work remotely and we have found that by working remotely, people make fewer mistakes. With the commute time removed, you can be more productive and relaxed.

Even past this period, we have to continue to adjust the way we work, and allow for more remote work. Now, having the tools, our personnel are able to work that way. They can connect to the main system remotely, so there is no reason for everyone to come in every day. At the same time, we need to make sure our policies are able to cope with that.

What are your expectations regarding indigenous companies utilising your facilities going forward?

We have supported the indigenous E&P companies and EPC contractors and what I see is that IOCs are reducing the number of expats here. I know some expats that have left because of the pandemic might not come back due to the cost-cutting measures. There will be more opportunities for the indigenous companies as IOCs move deeper offshore. There have also been some discoveries offshore Lagos, which is an opportunity for us.

We are trying to create a system that is a bit disruptive to the traditional model, one that is able to deliver more services with less space. We can’t grow without other areas to go into, and that means we need a second location, which has its own challenges regarding logistics and connectivity. So how do we optimise the space we have here?

We’re approaching this by thinking differently. Rather than giving a client X number of square metres, we have them give us as much data as possible, and using AI and other technologies we can plan the inventory better, including when it has to be on the vessel based on the activity they are doing. It helps us to drive more tonnage through a square metre.

What future impacts do you anticipate from the crisis?

I think it is an opportunity. The world is changing – now faster than before. The oil price has a big impact on the planning and one has to be quite nimble and flexible to be able to react to any massive price movements and understand that the price is not going to be where it was before. This will have an impact in terms of people working from home, which decreases the demand for oil. It will also result in the acceleration of renewable energies.

In Nigeria, given the fact that we had the last marginal field bidding round 17 years ago, there are many opportunities for new players to bring in new technology, especially in the field of cost cutting, as we have not been too cost-cautious here. ■

Samaila ZUBAIRU
President and CEO
AFRICA FINANCE CORPORATION

Pragmatic solutions

The Energy Year talks to Samaila Zubairu, president and CEO of Africa Finance Corporation (AFC), about the road ahead for trade and energy finance in Africa and opportunities for import substitution. AFC was established by sovereign African states in 2007 to provide private sector-led infrastructure investment and development across Africa for natural resource and industrial assets.

What is AFC's mandate and what lies ahead for trade and energy finance in these troubled times?

Africa Finance Corporation was established as a multilateral financial institution to provide pragmatic solutions for Africa's large and growing infrastructure investment deficit, within its challenging operating environment. We do this by structuring and financing infrastructure, natural resource and industrial projects with the ultimate goal of boosting productivity and fostering sustainable economic growth and development across the African continent. Since our creation in 2007 we have invested USD 7.2 billion across 32 African states.

We have membership across 27 African states. The natural resource sector is one of our focus areas, where we cover oil (midstream, upstream), gas and mining. Power is also one of our critical areas given it is where Africa needs the most intervention. Africa requires investment in excess of USD 170 billion annually to bridge the infrastructure investment gap. USD 67 billion is needed for water and sanitation and USD 50 billion for energy. USD 46 billion is required for transport and logistics and another USD 7 billion for information and communications technology.

Today, we have a roster of renewables projects across the continent. We have financed some of the most impactful projects for renewable energy in Africa. We built the first wind farm in Cape Verde, which provides 20% of the island's energy requirements. We are constructing a wind farm in Djibouti – a country where most energy is currently imported – which will provide them with energy independence. We are also building hydropower dams in Côte d'Ivoire and Cameroon, where we use blended finance to attract a diverse pool of financiers. We have helped build transmission lines in Ghana and Rwanda to support power distribution.

How has the pandemic affected the liquidity of firms in Africa?

This is a once-in-a-century event. There has been nothing like it during our lifetimes and no one was prepared for a global shutdown and the resulting economic slowdown due to lockdown measures. We see deep contractions in growth across the globe, with knock-on effects for African countries and businesses. Africa will experience its first recession in 25 years as a result of the pandemic. In response, we put together a programme to provide development support solutions for sovereign clients that are dealing with the twin challenges of liquidity and solvency.

We have seen significant volatility in commodity prices, coupled with the sharp fall in crude oil prices. Of course, there was a slowdown in activity; demand for crude oil collapsed and people tried to move towards investing in safer financial instruments, essentially moving to cash at the height of the crisis. We saw a great deal of volatility in global financial markets as well, and what at the time resembled the start of a global financial market crisis.

These trends have been corrected, mainly owing to the aggressive monetary stimulus and liquidity injection by major global central banks. We are now seeing a strong rebound in financial markets coupled with some signs of an economic recovery, particularly in China. As a result, the prices of many commodities have also recovered.

As China gets back to business, we have seen economic activity becoming more robust in one of several ports that we have invested in across Africa. This situation – i.e., the outlook for global demand and in turn, for commodity prices – is especially critical because many African countries are dependent on commodities for foreign currency and revenues.

What opportunities does this crisis hold for African countries?

This current conjuncture presents a significant opportunity for Africa because the disruptions in the global supply chain have underscored the continent's need to enhance private equity investments and incentivise domestic manufacturing to take the place of imports. By doing so Africa can create jobs domestically, not to mention developing a level of self-sufficiency, and therefore resilience to similar events in the future.

Because of the continent's lack of manufacturing capacity the bulk of jobs on the continent are in the informal sector, i.e., the services and subsistence sectors. Africa has significant resources, but there is very little value addition taking place on the continent, so we end up being price takers and earning the least amount in the commodity's entire value chain. But if there is value addition, there can be local consumption of the output (which reduces imports and their associated costs), and then you can export as well and command a higher price than you would for unprocessed commodities.

This is a time for us to seriously consider import substitution, especially for basic commodities and some primary healthcare equipment that we need. At a time when global supply chains are severely disrupted, there is a golden opportunity for continental Africa to develop and increase local manufacturing capacity on the continent. AFC is ready to support this. Import substitution is a big part of our strategic imperative; we work with anyone that launches production on the continent. At AFC, we stand ready to support any of the continent's import substitution projects.

AFC's commitment to delivering developmental impact has seen us refine our investment approach to Africa's infrastructure needs, with a focus on early intervention and ownership of its total value chain and providing the leadership in infrastructure ecosystem investment that integrates Africa's economies. ■

Bet on Nigerian expertise

The Energy Year talks to Chidi Egonu, CFO at Energia Limited, about the new normal for business operations during the Covid-19 pandemic and expectations for Nigeria's coming marginal fields bid round. Energia is an indigenous E&P company that operates the Ebendo and Obodeti fields in the Niger Delta in a joint venture with Oando.

Chidi EGONU
CFO
ENERGIA LIMITED

How has the Covid-19 pandemic affected your business?

A significant impact has been seen in the price of oil. As well, a bit of opex has been spent on moving people in the Covid-19 environment. Another impact is in the need to ensure a safe environment without contamination for workers during a crew change. It is not a regular crew change where people can move freely without any concerns. Additionally, we need to restrict access to the field and not compromise what we have already put in place.

In Nigeria, states have decided to lock down geographical areas to stop the spread of Covid-19. One could not move from one state to another without required permits. The oil industry has come together with joint efforts to operate in the current environment, but it is still an additional challenge.

A lot of work we used to do from the office we now do from home. A lot of things are happening virtually. We must sign documents electronically before we can send them out, which involves taking additional measures. There is also a certain psychological element when you are quarantined and cannot go out to socialise.

However efficient your system is, there is always room for improvement. It is key to constantly pay attention to details. Regarding our production, we managed to maintain some level of consistency and remain within the government quota. We do our best to do the math and make sure we do not lose any barrels beyond the tolerated limits.

How can the Nigerian hydrocarbons community react to unprecedented disruption caused by the pandemic and the oil price collapse?

There is never a truly bad time to make necessary changes. There will always be difficulties and situations. What is lacking is the willpower. The oil industry is known for carrying on as if nothing is happening. Oil flows 24 hours a day. No matter what is happening, production continues.

Covid-19 has presented us with generational challenges, but we cannot allow Covid-19 to define us. The government is doing what it can within this environment. Passing the Petroleum Industry Bill is something that requires a lot of courage and we must move forward with this.

What are your expectations for the coming marginal fields bidding round in Nigeria?

We are interested in bidding in the new round. A lot of companies will look at their strengths and where they think they will play best. In addition, some will form joint ventures and try to bid together to operate a field.

When one looks at the history of the Nigerian oil industry, one can see that knowledge and experience have indeed been transferred. Nigerians have proven themselves in the industry, even when they work for multinationals. Those that work globally have come together in some cases and bid for a field to operate. The same thing will happen in this instance. Many more locals have joined this experienced set of people since 2003 when the last bidding round happened.

Do you think local players will make bids on offshore plays?

When you look at offshore, you have shallow and deep waters. Most of the staff you have at these locations are Nigerians. If a Nigerian company decides to bid for an offshore block, I will definitely bet on their ability to successfully develop that block. These people have gained an impressive amount of experience over the years. I am confident that if a local company decides to go that route, it will make a big impact.

How do you view the attractiveness of Nigeria's downstream sector to investors?

The refinery business is an opportunity on its own. However, companies look carefully before investing. From the outside one might think that every type of crude has the same characteristics and the same yield

when it is refined. The reality is quite different. Each promoter wants to study its feedstock before making any decisions. There are huge opportunities in this space. A few refineries will come on line in the next few years. Presently, Nigeria imports a lot of refined products.

Nigeria is a huge opportunity for international investors. We have major international oil companies in the country for this reason. The margins are healthy, and you have a government that listens and does what is possible to make the business environment friendly. ■

Abiodun OSHODI
Managing Director
ILF CONSULTING ENGINEERS

Consolidation as the way forward

The Energy Year talks to Abiodun Oshodi, managing director of ILF Consulting Engineers, about what the company did to prepare for situations such as the Covid-19 pandemic and the opportunities for re-evaluation that the crisis offers. ILF Consulting Engineers is an international engineering and consulting firm that provides technical expertise on industrial and infrastructure projects.

What factors have contributed to ILF's preparedness to face the dual shock of Covid-19 and a collapse in oil prices?
Firstly, all the infrastructure is available for our employees to function and carry out their daily responsibilities. We are unable to move around freely and that has had an impact on our operations; however, the biggest concern remains the health and safety of our staff. Right now, Nigeria is in the middle of the community transmission stage, so it is not a matter of imported cases anymore, but a matter of the virus being transmitted within local communities in the country. We are now potentially more vulnerable to catching Covid-19 anytime we leave our homes.

We are still concerned about the way things will play out in the energy industry as a whole; however, I believe the right precautions have been taken within our field of activities. As a company, we are experiencing some delays, but we keep meeting our contractual obligations. Working from home has never been a common practice in Nigeria, and the current situation has been a huge exposure to what is possible.

In fact, the efficiency of our workforce has increased in the past two months. We have displayed flexibility and an ability to make quick decisions despite some of the challenges our people have faced in their remote work environment, such as access to power and the occurrence of blackouts.

Achieving broadband internet access is still a challenge in Africa, and we are trying to go around that bottleneck in certain parts of the country. But deadlines are being met and targets have been achieved. We are optimistic but cautious, hoping that the numbers of infected people will come down quickly and a vaccine will be found quickly.

How can Nigeria's gas market ensure business continuity for all industry actors during this period?
I am very optimistic about the country's gas market prospects, as gas still represents a new frontier in Nigeria. Currently, most of our projects are gas related. Regardless of what is happening in the global crude oil market, the impact has not been significant on natural gas prices.

> "It is obvious that coming together will be one of the few ways for industry actors to survive and navigate the crisis."

For instance, the AKK [Ajaokuta–Kaduna–Kano] pipeline project has seen a lot of traction and has been moving full speed ahead. With our partners and the EPC contractors, we are progressing with the project. We are also providing consulting services for entities interested in the NGFCP [Nigerian Gas Flare Commercialization Programme]. We are supporting various gas supply projects. As long as the FID is completed and the funds are available, Train 7 will also bring a huge amount of work to the engineering sector in Nigeria.

How can digitalisation help companies overcome the challenges associated with the slowdown that has hit the oil industry?
Companies that started to embrace digitalisation after the 2014 oil price shock have managed to move forward in a lean and flexible way. What the current crisis has taught us so far is that you can actually work efficiently in a remote environment. Industry players must get together and establish the right infrastructure that will suit all the projects going forward. The overall capacity to store and analyse industry data is still very poor in Nigeria, and everybody is still struggling to have good internet access in their homes.

We have been embracing digitalisation and smart technologies in ILF. Clients want to see what additional value we can bring to them so that they can optimise their costs. We are emphasising the benefits of 3D modelling in reducing rework to enhance project performance levels and increase efficiency. Our teams are able to work on the same project models at the same time.

Companies have come to realise that these technologies can change the way we work permanently. Now, it is time to start putting more capex into industrial digitalisation and developing state-of-the-art techniques. It's incredible that I do not need to fly six hours to London to have a meeting. Instead, I can do it on Zoom sitting in my room while also looking at a process plant through a 3D model. I am sure that we will see a boom in technologies following this pandemic as a result of necessity and the realisation that things can be done without physical presence.

What options are available for the government to stimulate growth while combatting the current crisis?

Unfortunately, the country does not have enough financial reserves to be able to support small and medium-sized businesses. Nigeria has gone from having tens of billions of dollars in reserves to just millions in the ECA. There are several different arguments as to what each administration has done in the past 10 to 20 years, but the question is this: What can we do now to boost our economy?

We have gone into this recession without having taken the necessary actions to properly recover from the previous oil price shock in 2014, and we are still suffering the consequences. But we are where we are today, and the government's ability to help companies is limited. We are not able to offer similar support packages as the ones introduced by the governments in the US, Japan or the UK.

The Central Bank of Nigeria and the Bank of Industry have done quite a bit to support the economy in the past several months. The Bank of Industry has reduced interest rates by 2% for every loan. The new policy directions released by the central bank to stimulate economic growth were also encouraging. However, we will not know whether these actions were sufficient or not until we are out of this crisis.

How can the crisis change contractors' receptiveness to entering into joint ventures and sharing profits?

We were always open to the idea of collaborating with our peers and other industry players. You can find a lot of consortiums that have come together to do work on large projects simply because we cannot match the millions of man-hours on our own that are required by the operators for such a large-scale development. Thankfully, Nigeria has a lot of large-scale developments and there will be work for everyone. Consolidation is the way forward. It may not have to be a merger, but rather a joint venture for a specific project.

It is obvious that coming together will be one of the few ways for industry actors to survive and navigate the crisis.

What do you make of the current downturn's long-term implications for business practices in Nigeria?

For me, the pandemic presents an opportunity to rethink our model. We need to look at the size of our government, the long-term viability of our projects and the opportunities to streamline a lot of other areas. We need to think it through this time and not make the same mistakes we did after the 2014 recession.

Secondly, Nigeria offers a huge amount of opportunities for investors. We have to put in the right policies and establish the right market dynamics, as projects are there to be invested in. We need to think in the right direction; however, we have often suffered in the past when it comes to turning those thoughts into actions. I hope this pandemic sends a message to all of us that we need to do things differently. ■

A shift away from oil dependence

Nigeria has relied on oil flows and prices for decades, proving itself vulnerable to major market shocks. A restructuring of the country's energy industry seems to be unravelling, as it takes on the quest to diversify away from its black gold, and into more reliable and sustainable sources.

Value of CBN's package aimed at boosting local manufacturing and production in key sectors:

Around USD 9 billion

Nigeria's 2025 target for renewables in the energy mix:

23%

Although petroleum accounts for a modest 10% of Nigeria's GDP, it contributes around 86% of export income, 30% of banking sector credit and over 50% of government revenue. For decades, earnings from crude oil have fuelled socio-economic development. This has helped spur what is now the largest economy in Africa, worth at least USD 400 billion. Certainly, Nigeria's oil industry is a key shaper of its economy and governance. Yet many believe that the nation's oil wealth is overshadowed by its oil dependence, a gift-and-curse paradox which is highlighted in times of crisis.

The dual shock of 2020 has hit Nigeria differently, and the reasons behind this lie in its recent past. The Nigerian oil boom of the 1970s altered the country's economic fabric by channelling FDI towards oil at the expense of traditional sectors. Nigeria became an oil state where grand modernising projects contributed to an overall rise in inflation and overreliance on foreign exchange, symptoms of the so-called Dutch Disease.

Since then, a mono-product economy has been established, where activity surrounding this single commodity has determined the economic fate of the nation. Consequently, Nigeria has remained hostage to global oil price fluctuations – flourishing with oil highs and weakening with oil lows. Past shocks have forced governments to pursue structural adjustment programmes and loans, which have increased Nigeria's fiscal burden and total debt.

"The country has remained tied to the apron strings of oil. It has become so bad that when the oil price crashes, Nigeria's economy crashes along with it. This should not be," President H.E. Muhammadu Buhari told The Energy Year. However, the country is determined to overcome the turmoil and see projects thriving soon.

RESIST THE SLUMP: The double shock has had a deep effect on Nigeria's oil-dependent economy. The fall of oil prices and the supply glut are expected to cut the country's yearly revenue by up to 50%, affecting capital budgeting and annual expenditure. This might delay critical projects such as the Second Niger Bridge and Mambilla Hydropower Project, in turn hampering Nigeria's development goals.

In the oil industry, players have implemented strategies to rationalise expenditure and harness revenues, leading to the delay of major FIDs. IOCs such as ExxonMobil, Chevron and Total have scaled back their E&P efforts, reducing operational costs and divesting from upscale assets which are deemed unprofitable with the barrel under USD 50-60.

Similarly, local companies are enduring liquidity problems and have imposed major cutbacks. Like in past slumps, unstable firms will succumb to market strains while small and medium-sized ones will have to resort to smart and cost-efficient strategies to excel in a world of low oil prices. Lastly, the drop in oil price has taken a major toll on Nigeria's economic anchor, witnessed in the devaluation of the naira and a further deepening of total debt, which today exceeds a 21% debt-to-GDP ratio.

As a response, the government has put all hands on deck to tackle the crisis on various fronts. A holistic strategy has been launched to buttress economic and monetary strength, incentivise business continuity and reactivate the oil and gas industry. The Central Bank of Nigeria established a package of around USD 9 billion aimed mainly at boosting local

Nigeria's real GDP growth, 2012-2021

	Barrel price of Bonny Light (USD)	Real GDP growth (%)
2012	113	4.3
2013	111	5.4
2014	100	6.3
2015	52	2.7
2016	45	-1.6
2017	55	0.8
2018	72	1.9
2019	65	2.2
2020*	30	-3.4
2021*	40	2.4

*Forecast

Source: IMF, World Bank

manufacturing and production in key sectors, as well as supporting the construction of critical infrastructure.

Fiscal policies have also been introduced, establishing a reduction of the oil benchmark for this year's budget from USD 57 to USD 30 per barrel. This was added to tax relief, debt rescheduling and a reduction of loan interest rates – all expected to alleviate the impact the crisis has had on businesses.

Within the oil industry, the government has had to limit itself to OPEC's output cap (around 1.5 million bopd), but has urged the industry to minimise disruptions and prevent further losses in revenue. In June 2020, DPR launched its marginal fields bid round as a means to boost E&P activities, spur indigenous opportunities and, above all, entice investment.

Key hydrocarbons ventures have also been furthered, namely the Train 7 LNG project and the Ajaokuta-Kaduna-Kano (AKK) gas pipeline. Meanwhile, government efforts to trim redundant costs have included cancelling premium motor spirit subsidies and rolling out tighter accountability mechanisms to prevent further revenue leakage in the sector.

"I am confident that our local oil and gas industry will come out of the Covid-19 crisis stronger than before," Chief Timipre Marlin Sylva, minister of state for petroleum resources, told The Energy Year. "The current crisis has proven to us that we cannot continue to depend solely on oil. We must expand our economy."

ALTERNATIVE ROADS: The crisis has led to an introspective debate on Nigeria's economic foundation. A commodity that was once termed "black gold" today struggles to maintain its market value, prompting calls for diversification. The government is under pressure to begin investing in a more inclusive and sustainable economy, wherein sectors such as agriculture, manufacturing and telecoms will be essential.

At the same time, ensuring a robust energy industry is imperative, since oil revenues will continue to fuel the country's economy and serve as an important stabiliser in years to come. Still, the crisis has resulted in a perfect storm which offers Nigeria a clean slate to reboot its entire energy industry and gradually diversify its mix. It is here where other sectors come into play.

NATURAL GAS: Natural gas has the potential to diversify and grow the country's economy. Interest in developing Nigeria's associated gasfields is on the rise, opening up promising avenues for investment. Given the chronic shortage of gas within Nigeria, NNPC is pushing a "gas-to-people" agenda, aiming to use natural gas to meet power, industrial and housing needs.

Both the LNG and LPG industries are expected to launch the country into

A holistic strategy will buttress economic and monetary strength, incentivise business continuity and reactivate the oil and gas industry.

a further development stage, ameliorating social, economic and environmental issues. Projects such as the Obiafu-Obrikom-Oben (OB3) pipeline, AKK pipeline and Escravos-Lagos Pipeline System expansion will help create the arteries through which gas will power the Nigeria of tomorrow.

"Gas is going to be huge for Nigeria," Kayode Thomas, CEO of Bell Oil & Gas, told The Energy Year. "There is talk about the ups and downs of the oil price and how it will rebound, but gas does not have that volatility yet. Gas is going to be key for the country, and it has just been tapped."

RENEWABLES: Renewable energy has received a great deal of attention during the downturn. The country's Renewable Energy Master Plan aims to increase the supply of clean electricity, reaching 23% of the mix by 2025. Hydropower is set to acquire more importance, given the construction of the 3.05-GW Mambilla Hydroelectric Plant, which is slated to be completed in 2025.

In addition, Nigeria's nascent solar sector is gaining ground. The country is said to offer the largest and most attractive off-grid opportunities in the African continent, and is determined to live up to these expectations.

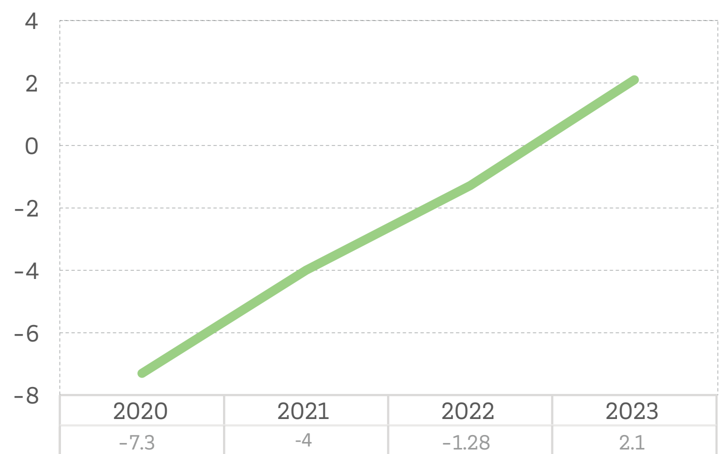
The Rural Electrification Agency, with the support of the World Bank, is making laudable efforts to spur the development of mini-grid projects, as a means to provide electricity to power-less rural areas across Nigeria. Initiatives like the Interconnected Mini-Grid Acceleration Scheme will gradually harness sector interest and help the solar market grow.

PETROCHEMICALS: The petrochemicals industry also represents a buoyant opportunity for the country's post-Covid era. With 200 million inhabitants and an increasing demand for consumer products, the country seeks to further exploit the potential of its crude oil, moving beyond only exporting it.

Nigeria is a market in itself, and the fabrication of petrochemical products would cater for diverse sectors like medical, agriculture and food packaging, having a multiplier effect on the market by nurturing job creation and in-country value. Projects such as the expansion of the Indorama Eleme and Notore fertiliser plants and the start-up of the Dangote refinery and petrochemical complex are pivotal in the government's diversification agenda moving forwards.

The recent pre-testing of the Dangote fertiliser plant – the largest in the world, with a 3-million-tonne-per-year output – clearly reflects the projected importance of this industry. "Looking at domestic gas and pairing Nigeria LNG, LPG, CNG, GTL, gas-to-fertilisers and gas-to-petrochemicals will open a new local industrial revolution," Ibilola Amao, principal consultant at Lonadek Global Services, told The Energy Year. ■

Nigeria's projected GDP growth recovery based on its Covid-19 fiscal stimulus package, 2020-2023 (%)



Source: The Nigerian Economic Summit Group

Ibilola AMAO
Principal Consultant
LONADEK

Hope and optimism

The Energy Year talks to Ibilola Amao, principal consultant for Lonadek Global Services, about shifting trends and key projects in Nigeria's hydrocarbons industry. Lonadek's core competence is in digital asset lifecycle and information management services. For energy companies, Lonadek identifies, develops and engages talent to deploy state-of-the-art technologies for operational excellence.

How has Nigeria's hydrocarbons industry changed its focus amid the low oil price and the Covid-19 pandemic?

Nigeria is responding bullishly to issues related to the pandemic, the glut of oil supply and the downturn in the cost of a barrel of oil. The country has switched its focus to gas. Although the focus has been on oil for the past 60 years, Nigeria is more of a gas province. With the ongoing OPEC issues, Nigeria is trying to implement its gas utilisation programme.

Energy security is a major issue in Nigeria and the focus on selling crude oil to buy finished products has led to a negative trade balance. Looking at domestic gas and pairing Nigeria with LNG, LPG, CNG, GTL, gas-to-fertilisers and gas-to-petrochemicals will open a new local industrial revolution.

With the monetisation of gas and opportunities created around developing central processing units, it is likely we will have more players bid for non-associated gasfields. This will open new opportunities for indigenous players. The post-Covid-19 environment is going to be extremely exciting for Nigeria and Nigerians. We have been forced to look inwards and think creatively and innovatively about energy security.

The wasteful past of exporting crude and importing finished product must come to an end. Everyone is on their toes now. PETAN [Petroleum Technology Association of Nigeria] members, IOCs, independent field owners and marginal field owners are beginning to pool resources and focus on collaboration, co-operation and co-ordination of in-country resources in order to address energy security issues in Nigeria.

What new projects will carry Nigeria's energy industry through the expected downturn?

The FID on Train 7 has gone ahead, which created a buzz in the industry. There is a lot of hope and optimism. Saipem and project

partners within the consortium are beginning to mobilise for various activities. On the back of that will be the Bonga South West development, which will also keep up momentum in the oil and gas industry in the long term. We should have good news about this development before Q2 2021. Additionally, the AKK [Ajaokuta-Kaduna-Kano] gas pipeline project is ongoing.

The government has been very proactive. New projects will bring a lot of stability to the energy industry in Nigeria. The fear of shutting down operations and losing skilled manpower has been addressed in the short to medium term. The government still must do a lot of work on security and safety if the country wants to see continued growth. ■

> "The FID on Train 7 has gone ahead, which created a buzz in the industry. There is a lot of hope and optimism."

Engr. Simbi WABOTE
Executive Secretary
NCDMB

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"Nigeria has come to begin to embrace the potential and role of digitalisation in moving the oil and gas sector forward. We have to prepare ourselves for technology evolution as the world continues to evolve. It should not come as a shock to anybody."

Essential technologies

Dapo ADENIYI
General Manager
WELLTEC NIGERIA

The Energy Year talks to Dapo Adeniyi, general manager of Welltec Nigeria, about the best approach to achieving cost reductions in upstream operations and the promise seen in the continued activity of Nigeria's marginal operators. Welltec is a developer and manufacturer of well technologies for the oil and gas industry.

Is there room for more rate reductions on the services side?

They ask us to reduce prices by 40%, but at the end of the day you can manage 5-10%. We went through a cycle from 2015 to 2018 when the oil price recovered but pricing did not recover. And now we are asked to give discounts on this already terrible pricing. We ask operators where they want to reduce costs. Reducing the cost per barrel of production can be done not by squeezing us but through the use of technology that will save them time, saving rig days.

We provide such technology. As an example, in [Republic of] Congo we offered an operator a technology to decrease the number of rig days to drill a well. We ran our Welltec Annular Barrier technology with a modification called Welltec Annular Isolation. For the first time, we completely removed cement in the reservoir section of that well. The benefit for the client was that as we took out the cement, they didn't have to drill into the water leg of that well. In the past, you needed to do that in order to place cement. Because they didn't have to, they eliminated the complexities associated with drilling into the water leg.

Beyond that benefit, this approach saves time as there was no need to do a wellbore cleanout as we didn't introduce any impurities into the formation. In addition, they didn't have to flow back all the impurities, so that is time saving again. On average, we saved the operator four days of rig time with the potential of up to 10 days.

What opportunities do you see in the Nigerian market going forward?

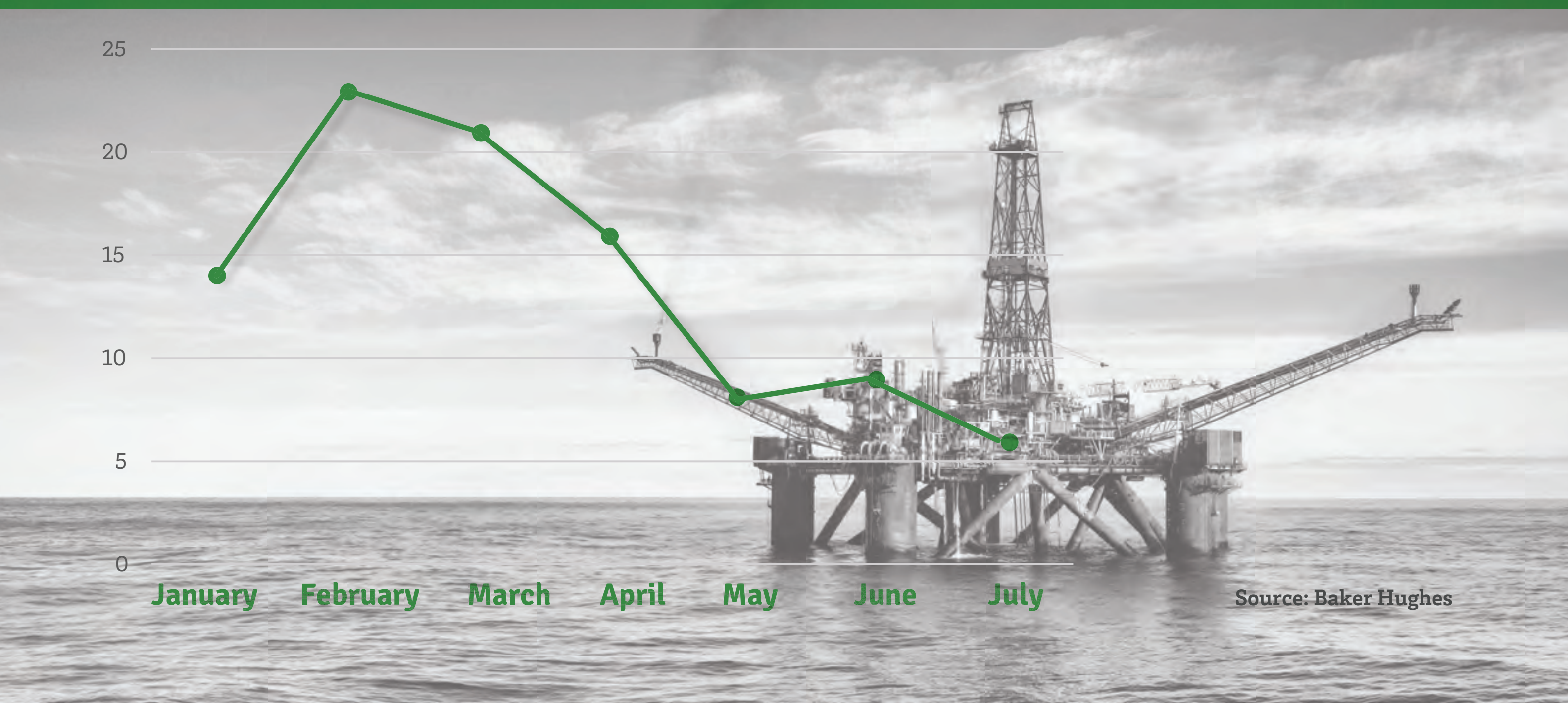
We work with IOCs, NOCs and marginal operators across the entire sector. With these low oil prices now, IOCs are more cautious in terms of activities. But marginal operators seem to be more aggressive – not cutting back, still going ahead with activities. So my sense of optimism is more based on the marginal operators. Once we can handle Covid-19, we will see them go ahead with a lot of the campaigns and work programmes. However, we still have some IOCs going ahead with their plans, even if they have been hampered by the effects of Covid-19 on their facilities.

I think we will have more participation from the marginal operators than from IOCs, just the opposite of what has been the case in the past.

To what extent are these marginal operators using the latest technologies?

It is a challenge, first of all as they don't have the deep pockets that IOCs have. Regarding willingness, some of them are quick to adopt new technologies; you cannot put all of them in one box, and it depends on management. You also have to consider that most of the marginal fields are operated by ex-IOC people, and some have seen new technologies in their previous jobs. The first Welltec Annular Barrier run in Nigeria was not for an IOC but for a marginal operator, and this speaks to their willingness to adopt new technology.

Nigeria's rotary rig count, January-July 2020



To what extent will dynamics between competitors in the service sector be shaken up as a result of this crisis?
When there is crisis in the industry, there is consolidation, and not just in the service sector but from the operators too. In Nigeria, I expect to see some mergers among marginal operators. I hope to see more of that because with that comes more capacity. Those that have the cash will buy other companies and I expect that to happen now. I don't think it will be business as usual; things are going to change and life will be different.

Does this crisis provide an additional stimulus to embrace more technologies and digitalisation?
Most of our technologies are essential for times like this because we are focused on doing things more efficiently and effectively. The average cost of production in Nigeria is between USD 20 and USD 40 per barrel, depending on where you play. With our technology, if you originally produce your oil at USD 20 per barrel, we can bring that down to USD 6 per barrel by recovering production in an already existing well. We help operators to restore and increase their production.

What are the lessons learned from this period? Can Nigeria emerge stronger from this crisis?
Oil has a bad image, gas is cleaner and we are moving towards alternative energies. Right now, Nigeria is more in the position of a rent seeker, but that has to change. We have to drive the full value chain of the oil and gas business in Nigeria. Once we see the Dangote Refinery running, or modular refineries where we consume what we produce, that is the way to keep going. With the effects of Covid-19, I hope we will start looking inwards and do this on our own and not just produce to sell. ■

ON PAGE 4

Chief Timipre Marlin SYLVA
Minister of State for Petroleum Resources

"Post-Covid-19, investors should not hesitate to invest in the country's hydrocarbons industry. Nigeria is getting safer and a lot more attractive, and it offers an environment where operations are becoming more profitable."

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Contributors

Oil reserves held in Nigeria's marginal fields:
2.3 billion barrels

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"We must more aggressively develop gas-based industries."

Chief Timipre Marlin SYLVA
Minister of State for Petroleum Resources

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The Bonny Island complex generates 6% of global LNG exports.

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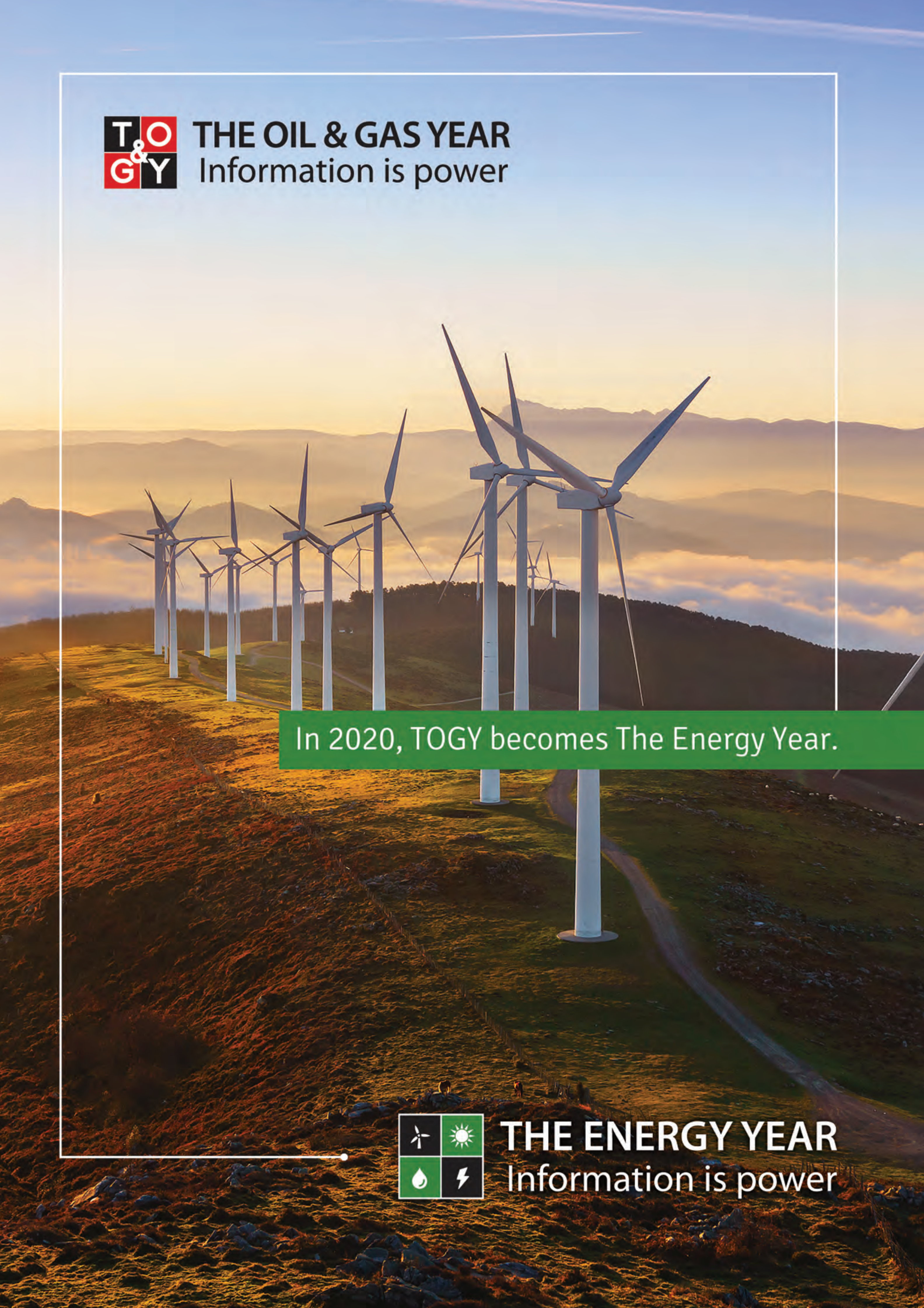
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