Illuminating Africa's Energy Future: Insights from the 2024 NIES

Demystifying Petroleum Marketing: Professor Okoye's Trailblazing Insights

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Oil Theft Tactics Rejig Overdue

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From the Publisher/Editor-in-Chief

Oil theft and pipeline vandalism in Nigeria has persisted despite government efforts, prompting concerns over the efficacy of existing measures to address it. The Nigerian National Petroleum Company (NNPC) Limited faces significant challenges in combating this issue, with 6,465 illegal refineries and 4,876 illegal pipeline connections discovered and dismantled. Seeking assistance, NNPC recently appealed to the Economic and Financial Crimes Commission (EFCC) to address crude oil theft, emphasizing its detrimental impact on the economy.

Despite multi-billion naira contracts with local security firms like Tantita Security Services Ltd., led by former militant leader Government Ekpemepulo, the problem persists. NNPC renewed Tantita's contract worth N48bn per year, sparking debate over the reliance on private contractors for pipeline surveillance. While some stakeholders support this approach, others, including Rivers State Governor Siminalayi Fubara and ex-militant leader Mujahid Asari-Dokubo, criticize it.

Government officials like Senator Heineken Lokpobiri and the National Security Adviser Nuhu Ribadu have however endorsed the use of private contractors, citing the need to combat oil theft. However, experts caution against relying solely on militants for pipeline security, emphasizing the Petroleum Industry Act's provision for host communities to safeguard installations. They argue that this approach may incentivize further disruption of government assets. This concern informed the choice of our cover story for March, titled "Oil Theft: Tactics Rejig Overdue".

The 2024 Nigerian International Energy Summit (NIES) convened stakeholders to address Nigeria's pivotal role in Africa's energy landscape. With the theme "Navigating The New Energy World Order: Security, Transition and Finance," discussions highlighted the importance of energy security, transition, and financing in Nigeria's sustainable development. President Bola Ahmed Tinubu emphasized energy security as crucial for Nigeria's future, advocating for subsidy removal and private sector participation. Global perspectives from leaders like H.E. Haitham Al Ghais and H.E. Dr. Omar Farouk Ibrahim stressed regional cooperation and the significance of gas in Nigeria's energy transition. Indigenous empowerment and collaboration emerged as focal points, with leaders like Mall. (Dr.) Mele Kolo Kyari and Mr. Abdulrazaq Isa emphasizing local participation and industry transformation. Innovative financing and partnerships were highlighted, with calls for an Africa Energy Bank to fund oil investments. The summit concluded with a vision for a brighter energy future through leadership, collaboration, and strategic vision, positioning Nigeria as a beacon for Africa's energy advancement. We have for you in this edition, an overview and photos of the largest annual energy gathering in the most populous black nation, which took place in Abuja last month.

The former Group Executive Director, Ventures and Business Development, NNPC, Professor (Sir) Billy Okoye recently in Abuja showcased his groundbreaking contributions to petroleum marketing with his two books and AptFuel Technology application launch. His works delved into petroleum marketing intricacies, while the AptFuel app revolutionizes fuel station management, offering real-time information and cost reduction strategies. These two books are must-read literature for those interested in crude oil and petroleum marketing subject. ***Valuechain*** will explore the possibility of serializing these interesting books for our readers in our Energy Literature section in our subsequent outings.

As usual, we also have other juicy reports for you in this edition ranging from columns, entertainment, Innovation world, sports and a whole lot more. Thank you for always keeping a date with us.

Do have a lovely time reading.

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UTM Offshore FLNG Project Set to Transform Nigeria's Gas Sector

By Patience Chat Moses

In the heart of Nigeria's oil-rich Niger Delta, a ground-breaking endeavour is underway, poised to redefine the nation's energy landscape. UTM Offshore Limited, an indigenous company, is spearheading Nigeria's first Floating Liquefied Natural Gas (FLNG) facility—a visionary project set to revolutionize the country's energy sector.

At the Nigerian Content Tower in Yenagoa, Bayelsa State, a pivotal meeting unfolded between UTM Offshore Limited's leadership, led by Group Managing Director, Mr. Julius Rone, and the esteemed Executive Secretary of the Nigerian Content Development and Monitoring Board (NCDMB), Engr. Felix Omatsola Ogbe. The agenda? To secure critical investment and accelerate approvals necessary for the swift realization of this transformative FLNG project.

With a target completion date set for 2028, the UTM FLNG facility aims to produce a staggering 450,000 tonnes of Liquefied Petroleum Gas (LPG) annually— a feat that promises to significantly alleviate Nigeria's pressing demand for cooking gas and diminish dependence on LPG imports.

In his address, Mr. Rone emphasized the project's indigenous roots and its potential to unlock Nigeria's offshore gas reserves, bolster energy security and facilitate technology transfer—a testament to Nigerian ingenuity and capability in executing projects of global acclaim. Giving a brief on the company, the Group Managing Director stated that UTM is a 100 per cent indigenous company, and it will promote domestic consumption of cooking gas, among other benefits.

In a bid to garner support and foster local participation, UTM Offshore Limited announced plans for roadshows in Uyo and Abuja, slated for April 2024. These roadshows will serve as platforms to showcase the myriad Nigerian Content opportunities within the FLNG project, encouraging broader engagement from domestic oil and gas services companies.

Providing further details, the Technical Manager of the FLNG, Engr. George Amara stated that the project's target total production is 2.72 million tonnes per annum (MTPA), with LNG accounting for 1.81 MTPA, LPG taking up 0.45 MTPA, and condensate making up 0.25 MTPA.

Engr. George Amara outlined the ambitious production targets of the FLNG project, encompassing LNG, LPG, and condensate. With pivotal milestones achieved—including approvals for engineering design and local content development plans—the project is poised to leverage Nigeria's fabrication yards for in-country activities, thus enhancing local capacity and driving industrial growth.

In response to UTM Offshore Limited's appeal, Engr. Ogbe expressed the NCDMB's steadfast commitment to supporting the project, pledging timely approvals and proactive assistance. Additionally, he emphasised the Board's willingness to explore equity investment opportunities, signalling a strong endorsement of indigenous-led initiatives within Nigeria's energy sector.

As Nigeria embarks on its journey towards energy sufficiency, energy security and economic resilience, it is expected that more collaborations between visionary entities like UTM Offshore Limited and supportive institutions such as NCDMB will unfold to serve as beacons of hope.

With the exit of multinational oil companies, we earnestly entreat that more indigenous companies will excavate and build a new and robust energy, oil and gas enterprises that will herald a new era of progress, innovation, and sustainable development—a testament to the power of indigenous ingenuity in shaping Nigeria's energy future.

Revolutionizing Urban Mobility: Tricycles Go Green with Funtay's CNG Innovation

By Ufuoma Ese

Tricycles form a symphony of urban life. Often overshadowed by their larger and more powerful counterparts in the transportation industry, they play a crucial yet often under-appreciated role in facilitating mobility, particularly in densely populated urban areas and developing regions. These three-wheeled vehicles, propelled by human power or small engines, offer a versatile and accessible mode of transportation that addresses various needs, from short-distance commuting to goods delivery. Despite their humble appearance, tricycles contribute significantly to the transportation ecosystem, offering solutions to challenges such as congestion, environmental sustainability, and accessibility.

Often regarded as the unsung heroes of urban mobility, tricycles are undergoing a transformative evolution, thanks to the pioneering efforts of companies like Funtay Integrated Business Limited.

At the recently concluded 2024 Nigeria International Energy Summit (NIES), Funtay unveiled a ground-breaking innovation poised to revolutionize the transportation landscape: the conversion of traditional petrol motor tricycles to run on Compressed Natural Gas (CNG). This strategic shift marks a monumental advancement in the quest for sustainable and eco-friendly transportation solutions, aligning with global efforts to combat climate change and reduce carbon emissions.

Engr. Martins Erabor, the Business Development Officer of Funtay Integrated Business Limited, shed light on the vision driving this ground-breaking initiative in an exclusive interview with ***Valuechain.*** "We are tackling head-on the challenges associated with petrol motor spirit (PMS) by introducing a clean, efficient, and cost-effective alternative," he explained. Funtay's ingenious technology involves retrofitting tricycles with a CNG cylinder positioned behind the passenger seat, retaining the original fuelling mechanism while enabling a seamless transition from petrol to gas-powered operation.

The efficiency and sustainability of the CNG system are nothing short of remarkable. With an installed capacity of 30 kilograms of compressed gas, each tricycle can cover approximately 100 kilometres when filled to 80% capacity. This not only extends mileage but also reduces operational costs and significantly mitigates carbon emissions, contributing to a cleaner and healthier urban environment.

However, as with any innovative solution, challenges and considerations emerge. Questions arise regarding passenger comfort and safety, particularly with the CNG cylinder positioned behind the passengers' heads. Additionally, concerns about the availability of specialized mechanics trained to work on these converted tricycles underscore the importance of a skilled workforce to support maintenance and repairs for CNG systems.

Nevertheless, the adoption of CNG technology aligns harmoniously with Nigeria's broader energy diversification goals. With vast reserves of natural gas waiting to be tapped, the nation stands on the cusp of an energy revolution. Funtay's pioneering initiative not only harnesses this abundant domestic resource but also positions Nigeria as a frontrunner in sustainable transportation innovation on the global stage, paving the way for a greener and more prosperous future. Tricycles, once merely a symphony of urban life, are now poised to orchestrate a sustainable transportation renaissance.

Illuminating Africa's Energy Future: Insights from the 2024 Nigerian International Energy Summit

By William Emmanuel Ukpoju

Dignitaries at the NIES 2023

In the heart of Africa's most populous nation, the 7th edition of the Nigerian International Energy Summit (NIES) 2024 convened in Abuja, marking a fundamental moment in the continent's energy landscape. Against a backdrop of global energy transitions and evolving geopolitical dynamics, stakeholders from government, industry, academia, and civil society gathered to chart a course towards a sustainable and secure energy future.

Nigeria, often dubbed the "Giant of Africa," stands as a beacon of potential and promise on the continent. With its vast population, abundant natural resources, and dynamic economy, Nigeria holds a pivotal role in shaping Africa's energy landscape. In this feature, ***Valuechain*** delves into the complexities, challenges, and opportunities facing Nigeria's energy sector, exploring the insights and initiatives unveiled at the Nigerian International Energy Summit (NIES) 2024.

Theme and timeliness

The theme of the 2024 NIES, "Navigating The New Energy World Order: Security, Transition and Finance," resonated deeply with the challenges and opportunities facing Nigeria and Africa at large. Against the backdrop of rapid transformations in the global energy landscape, the summit provided a platform to address critical issues of energy security, transition, and financing. As Nigeria seeks to diversify its economy and harness its abundant energy resources, the timely discussions at NIES underscored the imperative of strategic vision and collaboration in shaping the continent's energy future.

Presidential vision and the imperative of energy security

Emphasizing the paramount importance of energy security for Nigeria's sustainable development, President Bola Ahmed Tinubu set the tone for the summit with his inaugural address: energy security stands as the cornerstone of Nigeria's sustainable development agenda; from the removal of petroleum subsidies to fostering private sector participation, President Tinubu articulated a strategic vision to ensure transparency, accountability, and resilience in Nigeria's energy infrastructure and emphasised the critical importance of energy security for Nigeria's future.

According to the President, "energy security as we know is of paramount importance; it is not just a national concern, it is also a global imperative. In the face of emerging challenges, both geo-political and technological, we must ensure the resilience of our energy infrastructure. The decisions we make here will impact the energy security of generations to come."

Speaking on petroleum subsidy removal, the President has this to say: "This gathering affords me the opportunity to once again address a crucial issue that has been at the forefront of our national discussion: the removal of the petroleum subsidy. Our great nation has long been dependent on the revenue generated from oil export and as we stand at the threshold of the 21st century, it is imperative that we re-evaluate our energy policies to ensure a sustainable and secure future. The decision to remove petroleum subsidy is a challenging one but it is a step that we must all take to secure our energy future and foster economic growth and development. Energy security is a paramount concern of any nation striving for economic stability and development. It encompasses not only the availability and accessibility of energy resources but also the resilience of our energy infrastructure. The petroleum subsidy has over the years, strained our economic resources leading to inefficiencies and most importantly, hindering our ability to invest in critical areas of energy security". The President added, "By removing subsidies, we are creating a more transparent and accountable energy future. The funds that were previously allocated to subsidising petroleum products are now re-directed towards developing and upgrading our energy and other social infrastructure. Furthermore, the removal of the petrol subsidy has encouraged other private sector participation in the energy industry with the potential of attracting more local and international investors. This, of course, leads to innovation and competition that will drive down costs and improve the overall efficiency of our oil sector".

"The decision to remove the petroleum subsidy is not an easy one, it is a necessary one for the long-term energy security and economic prosperity of our beloved nation. While we are immersed in energy security, let us not forget that energy transition is another key aspect of our discussion. We stand on the brink of a new era where traditional energy sources are being complimented and in some cases, replaced by cleaner and more sustainable alternatives. This transition is not only an environmental necessity but also an economic opportunity. We must leverage innovation and collaboration to ensure a smooth and just transition that will leave no one behind," the President said.

President Tinubu also spoke about the current challenges facing Nigerians, "...I'm actually aware of the effect this decision may have had on our citizens especially those with lower incomes... in parallel with the subsidy removal, and my administration is committed to implementing social intervention programmes to mitigate the short-term effects on vulnerable populations. These programmes will therefore ensure that the burden of the subsidy removal is shared equitably and that the most vulnerable among us are protected."

Speaking on finance as crucial to energy security and development, Mr. President noted that, "Finance has always played a pivotal role in driving the energy agenda. Adequate funding is crucial to support the developmental and deployment of cutting-edge technologies, infrastructure and projects that will shape our energy future. As a nation, we must explore innovative financing models, engage with the private sector and attract investments that will propel us to a more resilient and diversified energy sector. The collective wisdom in this is a powerful source going by the collection of government, industry leaders, the academia and civil societies all coming together under the NIES 2024 platform to share insights and forge collaborations that will drive progress", he concluded.

Global perspectives

The presence of international dignitaries, including H. E. Haitham Al Ghais, Secretary General of OPEC, and H. E. Dr. Omar Farouk Ibrahim, Secretary General of APPO, added a global dimension to the summit. Their insights into Africa's role in the global energy market and the importance of regional cooperation stressed the interconnectedness of energy security and economic devel-

President Tinubu also spoke about the current challenges facing Nigerians, "...I'm actually aware of the effect this decision may have had on our citizens especially those with lower incomes... in parallel with the subsidy removal, and my administration is committed to implementing social intervention programmes to mitigate the short-term effects on vulnerable populations. These programmes will therefore ensure that the burden of the subsidy removal is shared equitably and that the most vulnerable among us are protected."

opment. From OPEC's historic ties to Africa to APPO's visionary plans for the continent's energy industry, the contributions of these esteemed leaders provided valuable perspectives on Africa's energy renaissance. The politics vis-à-vis the quest for renewable energy was the salient path towed by Dr. Omar Farouk Ibrahim. According to him, "all the environmental concerns are the sensible reasons for the quest for energy transition; the driving ideology of energy transition is energy security. Energy security, not for you and me but for the developed countries that have used fossil fuel for over a hundred and twenty years to industrialise their economy and to make the lives of their people better.

"In one hundred and twenty years, they put in the atmosphere, over two thousand, five hundred Giger tonnes of emissions. It is this legacy emission that is the root cause of the climate crisis we are told the world faces today. But instead of addressing the root causes of the crisis, namely the legacy emissions, we are focusing on the contemporary emissions".

"As we gather here, we should be asking ourselves if the solutions that the developed countries are putting forward to address the climate challenge are the only or the best solutions that shall bring justice to all.

"Africa cannot afford to abandon, hundreds of billions of barrels of proven crude oil reserves and hundreds of trillions of standard cubic feet of gas in the name of righting the wrong committed by others, especially when those others are still benefitting from the wrong actions that they took at the expense of others and they have the capacity to right those wrongs without denying others the opportunity to also use the same source of energy to better the lives of their people", he quizzed.

The renowned APPO Chief ended his speech by calling on African leaders, academics and intellectuals to put on a new "thinking cap" that will guarantee energy security for future generations in Africa, "It is imperative on African academics, intellectuals and leaders to put on their thinking caps and to see the imperative of a new paradigm shift in the search of solutions to the climate challenge. For us in APPO, we

H. E. Haitham Al Ghais

have put on that cap already, we are looking at a new model of sustaining and growing the African energy industry", he said.

Lending his voice to this call, the Honourable Minister of State Petroleum Resources (Oil), Sen. Heineken Lokpobiri, said, "In my capacity as Minister for Petroleum Resources (Oil), I've aligned with the APPO Secretary General, I've aligned with the OPEC Secretary General, I've aligned with my colleagues all over OPEC and in Africa. Our target is to explore these resources in a more environmentally and sustainable way. We are not stopping, we need the money to build and transit, and for us to transit, we must get the right investments."

Like other speakers, Sen. Lokpobiri also spoke about energy security, but this time, he questioned why Nigeria has not been able to turn around its fortunes using the abundant oil and gas reserves found in the country. He said, "let me talk about energy security in Nigeria; Nigeria suffers from energy poverty even though we have an abundance of oil and gas reserves. I have said oftentimes that these abundant reserves have not translated to economic prosperity, contrary to the situation we have found in the Middle East. Go to Kuwait, Saudi and UAE you will see that it is the same resources that we have that they have been able to translate into prosperity. What are they doing that we cannot do? That is the question we should ask ourselves and this summit should look for answers", he quizzed.

"The time has come for this 2024 summit to be able to unravel what other countries have done to be able to bring economic prosperity to their nations that we have not done even though we may have more resources in terms of reserves than they have. At the end of this summit, I believe that we will be able to resolve that puzzle so that going forward, we will be able to transition toward real economic prosperity."

Sen. Heineken Lokpobiri also frowned at situations whereby oil wells are allocated to politicians who do not have the technical capacity to translate crude to wealth. "What we have done in the past, a situation where the allocation of oil blocks is politicised and it ended in the pockets of politicians. I have also said, if you have reserves underground and you don't bring them out, they don't translate to anything and the only way we can do that, in my opinion, is to ensure that we give it to those who have full capacity, both financially and technically to be able to explore this oil and gas for the benefits of Nigerians".

"What this government wants to bring is to ensure that we identify those who have proven capacity, both locally and internationally so that we will be able to explore these resources for the benefit of our people. For us to guarantee energy security in Nigeria, we need to get the right investments at this particular time", he added.

Gas: Nigeria's path to sustainable energy

Rt. Hon. Obong Emem Ekperikpe Ekpo, Minister of State Petroleum Resources (Gas), emphasized the pivotal role of gas in Nigeria's energy transition. With significant reserves and a commitment to cleaner energy sources, Nigeria is poised to become a regional powerhouse in gas production and utilization. From power generation to industrialization, gas emerges as a key driver of Nigeria's sustainable energy future. To this end, Hon. Ekperikpe pointed out, "In our transition to a sustainable energy future, Nigeria has chosen gas as our transition fuel, facilitating it from more conventional to new and renewable energy sources. With its lower carbon, natural gas

"Lastly, we will continue to strengthen partnerships with neighbouring countries to enhance regional gas trade and cooperation through the West African gas pipeline and other initiatives including the Nigerian-Morocco gas pipeline and the Trans-Sahara Gas pipeline among others."

aligns with global climate objectives while providing a reliable solution for our energy needs. Nigeria with significant gas reserves should leverage its advantage to become a key player in the global energy transition and a regional powerhouse for geo-processing and industrialisation."

Ekperikpe noted that the 2024 NIES theme, "resonates deeply with the path the gas industry must take to ensure Nigeria's economic transformation." He added that "Energy security extends beyond geopolitical stability to include energy infrastructure, resilience, diversity and reliability. The gas industry with its abundant proven reserve of more than 208 trillion cubic feet and further exploration potentials is crucial for enhancing energy security. With the proven reserves, Nigeria has no business with energy poverty", he reaffirmed.

Most importantly, the Honourable Minister highlighted four major steps his ministry is taking to revitalise the country's economy through natural gas:

"One, we are accelerating the development of gas-fired power plants and working with our counterparts in the Ministry of Power to ensure a reliable gas supply to enhance the optimal availability of electricity nationwide. This goes hand-in-hand with encouraging private sector participation in the power sector through attractive investments, frameworks and incentives".

"Secondly, we are promoting the use of natural gas for industries to reduce operational costs and enhance completion. We are doing this by facilitating the establishment of gas-based industries to create more employment opportunities and boost economic growth".

"Thirdly, we will continue the development of the necessary infrastructure widespread access to clean and affordable natural gas for domestic consumption and encourage the adoption of Compressed Natural Gas energy (CNG) and Liquefied Petroleum Gas (LPG) for transportation and household use respectively".

"Lastly, we will continue to strengthen partnerships with neighbouring countries to enhance regional gas trade and cooperation through the West African gas pipeline and other initiatives including the Nigerian-Morocco gas pipeline and the Trans-Sahara Gas pipeline among others. We also want to explore more international markets for our Liquefied Natural Gas (LNG) exports, thereby positioning Nigeria as a major player in the global gas market."

Indigenous empowerment and industry transformation

A highlight of the summit was the emphasis on indigenous participation and empowerment in Nigeria's energy sector. Speakers such as Mele Kolo Kyari, GCEO of NNPC Limited, and Mr. Abdulrazaq Isa, Chairman of Independent Petroleum Producers Group (IPPG)/ Walter Smith Group, highlighted the transformative potential of empowering local operators and driving industry innovation. Their calls for collaboration, investment, and inclusivity highlighted the shift towards a more sustainable and inclusive energy ecosystem in Nigeria. For Mele Kyari, the decision of the NNPC to fast-track the transition of the exiting IOCs is sacrosanct. He stressed that "at the NNPC, we facilitate any sale on accessing discounts and we have no interest in preventing any of our partners from taking down their position".

"If we have the choice, we would love Shell and Exxon Mobile to remain in Nigeria but that is not an option now, they would like to exit and it is our job to facilitate their exits in a manner that will be mutually beneficial to the exiting partners, the incoming partners and also the NNPC Limited. Don't forget that NNPC Limited is owned by over 200 million people and the key issue is that every arrangement must be of mutual benefit to all. It is not enough to exit, our partners are working harmoniously with us and we understand their support for NNPC Limited to ensure that we retain value for all. We are working with our multinational partners to ensure that in the end, more resources will be created, more capacity will be created in our country, and indigenous companies including NNPC can develop more capacity to ensure that we fit into the on-going energy transition conversation".

"Let me assure our partners that we will work with you, all we want is for us to do something that will be of mutual benefit to all and don't forget that we are now investors. We are not regulators; we are a business with a role to provide national energy security by law. This means the balancing is the role of the oil company, particularly the NNPC and I am sure no country has that clarity of definition like we have in our country today", he stressed.

On the other hand, Mr. Abdulrazaq Isa, Chairman of Independent Petroleum Producers Group (IPPG)/Walter Smith Group is very hopeful that the divestment will "bring about the growth of indigenous participation in Nigeria and control in the country's energy sector which will lead to increased empowerment, economic growth and potentially, more sustainable management of Nigeria's hydrocarbon resources."

Mr. Abdulrazaq further stated, "overall, the divestment of oil and gas assets to indigenous operators in Nigeria will foster greater sustainability, inclusivity and prosperity within the industry and the broader economy. As this new dawn emerges for our industry, notably driven by indigenous operators, energy security as well as accelerated bio-capture from Nigeria's hydrocarbon assets, socio-economic development and transformation of our citizens must remain a priority."

The IPPG Boss however expressed worry that "The current status where the sellers have signalled full intention to leave, whereas the buyers are yet to effectively take over the operations of the assets, is very detrimental to the sector and the country."

He called on the government to ensure prompt intervention with the view to untangle all issues and diligently fast-track all relevant approvals.

Collaborative solutions and innovative financing

Throughout the summit, collaboration emerged as a central theme, with stakeholders across sectors and borders coming together to address Nigeria's energy challenges. From exploring innovative financing models to leveraging technology and expertise, the discussions at NIES 2024 showcased a wealth of collaborative solutions to drive progress. The commitment to harnessing collective wisdom and resources accentuated the transformative potential of partnerships in shaping Nigeria's energy future. One is key- for Africa to triumph and get the energy transition right; it must have access to finance. This was the major call by all the participants at the Summit and for Nigeria to succeed in this regard; accessing finance must be top on the agenda.

To this end, H. E. Dr. Omar Farouk Ibrahim, Secretary General of APPO, reassured that "on 31st March 2024, a decision on which African country will host the Africa Energy Bank will be taken. Seven countries are in the race for it; Algeria, Egypt, Nigeria, Ghana, South Africa, Benin Republic and Cote d'Ivoire. There is real competition. The take-off is on or before 30th June this year", he reaffirmed.

According to the Honourable Minister of State Petroleum Resources (Oil), Sen. Heineken Lokpobiri, "Funding is fundamental and the only way we can be held back in optimising the potential we have in the oil and gas industry is our inability to access finance, if we have access to finance, we will invest the way countries in the West are investing".

H. E. Dr. Omar Farouk Ibrahim

The Honourable Minister said, "America is the highest producer because they are sustaining their investments in oil and gas" and lamented that "...in the last five years, we have slowed down on investment in oil and gas, and we are the lowest in the world. Between 2017 and 2022, if we look at the figures, Nigeria's investment compared to sales was only 5%, Angola had 46%, Brazil had 150%, Mozambique had over 90%, and Ghana had 615%. There must be something we are not doing that we must start doing now and this is the essence of this year's summit".

He expressed happiness that" ... the theme of this year's summit has to do with energy security, energy transition and finance. It is our candid hope that you the experts that are gathered here for these three days' summit will be able to come up with some ingenious ideas to ensure that we have energy security in Nigeria and ramp up production because we have so many idle wells. The only way we can guarantee security is to ramp up production in the upstream so that the midstream and the downstream can also be successful. We need to increase our production in upstream so that we will be able to produce the right quantity that will service our obligations both locally and internationally."

Sen. Lokpobiri nevertheless, gave some reassuring updates about what the government is doing to guarantee stability and production in the industry. "Dangote Refinery needs about 6050 b/d; we are rehabilitating our government-owned refineries that want to meet up with about 4050 b/d. We have a couple of modular refineries that are also coming up. We need to ramp up production to ensure a smooth transition from fossil fuel to gas because our gas is associated. At the end of this summit, we should have solutions to our fuel problems; Nigeria does not need to import fuel. Our refineries will come into full operations by the end of this year, like Port-Harcourt Refinery, the first phase has begun, Warri is about to be completed between now and the next two months, Kaduna will follow, and all will be rehabilitated this year", the Minister reassured.

While making suggestions about funding for the industry, Sen. Lokpobiri said "At the OPEC level we need an OPEC Bank, perhaps the West is no longer willing to fund oil investments in Africa, let's get an OPEC Bank that can fund our investments."

As the curtains close on the 2024 Nigerian International Energy Summit, the echoes of collaboration, innovation, and strategic vision reverberated across Nigeria and beyond. The insights, initiatives, and partnerships forged at NIES 2024 lay the foundation for a brighter and more sustainable energy future for Africa's powerhouse.

With leadership, collaboration, and a shared commitment to harnessing Africa's energy potential, the journey towards illuminating Africa's energy future has only just begun. As Nigeria charts its course towards a sustainable energy future, the insights and initiatives unveiled at the Nigerian International Energy Summit 2024 offer a roadmap for progress. From energy security to industry transformation, Nigeria stands at the border of a new era in its energy journey. With collaboration, innovation, and strategic vision, Nigeria is poised to harness its vast energy potential to power the nation's growth and prosperity, setting an example for the continent and beyond.

Photosplash from the
Nigerian International Energy Summit, 2024

Moments from the N.I.E.S 2024 where global energy leaders converged to discuss the future of the Industry. In the spotlight, H.E. Haitham Al Ghais, Secretary General of OPEC, H.E. Dr. Omar Farouk Ibrahim, Secretary General of APPO, Honourable Minister of State Petroleum Resources (Oil), Sen. Heineken Lokpobiri, Rt. Hon. Obong Emem Ekperikpe Ekpo, Minister of State Petroleum Resources (Gas), Mall. Mele Kolo Kyari, GCEO of NNPC Limited and the Secretary to the Government of the Federation, Sen. George Akume, among numerous others, shared insights to shape energy policies in Nigeria and the world.

This year's event themed: Navigating the New Energy World Order: Security, Transition and Finance, saw over 4,380 participants physically at this live event in Abuja, Nigeria and 2,983 join us virtually via our live streams – making a total of 7,363 participants across the 5 days.


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LIVE
CLOSING COCKTAILS
AFRICAN RAVE

Demystifying Petroleum Marketing: Professor Okoye's Trailblazing Insights

By William Emmanuel Ukpoju

In a recent event hosted in the heart of Nigeria's capital, Abuja, Professor Okoye unveiled his magnum opus: "Dynamics of Petroleum Products Marketing," "Insight into Crude Oil Marketing," and the ground-breaking Apt-Fuel Technology application. This innovation represents the culmination of years of tireless research, offering a beacon of clarity amidst the tumultuous seas of energy commerce. In this special feature, ***Valuechain*** *delves into the narrative of Professor Billy Okoye's journey, exploring the profound impact of his contributions on the landscape of petroleum marketing, and the transformative potential they hold for the future of Nigeria's oil and gas industry.*

Professor Billy Okoye, the Coordinator of Oil, Gas, and Energy Marketing at the University of Abuja Business School, has emerged as a leading authority in petroleum marketing, unveiling the intricacies of this vital sector through his ground-breaking works.

At a recent event tagged "Unveiling of my books" held at the International Conference Centre, Abuja, Professor Okoye unveiled his latest literary contributions to the field: "Dynamics of Petroleum Products Marketing" and "Insight into Crude Oil Marketing." These titles represent a culmination of over two decades of relentless dedication, research, and hands-on experience in the oil and gas arena. Professor Okoye's aim is clear: to demystify the complexities of petroleum marketing and offer invaluable insights into this dynamic industry.

"Dynamics of Petroleum Products Marketing" delves deep into the multifaceted world of marketing within the petroleum industry. From refining processes to pricing mechanisms, political influences, and the ongoing energy transition, this book offers a comprehensive framework for navigating the ever-changing landscape of petroleum products marketing. Similarly, "Insight into Crude Oil Marketing" provides a detailed exploration of crude oil marketing dynamics, commercial processes, geopolitical influences, and technological advancements, shedding light on the critical aspects of this cornerstone of the global economy.

However, Professor Okoye's contributions extend beyond theoretical insights. The launch of the AptFuel Technology application underscores his commitment to innovation and efficiency within the industry. This ground-breaking technology simplifies fuel station management, offering real-time information systems, cost reduction strategies, and improved returns for stakeholders. With AptFuel Technology, Professor Okoye is revolutionizing fuel station opera-

tions, paving the way for streamlined processes and enhanced profitability.

During his review, Hon. Damat Adullahi, CEO of Damat and Sons Limited, represented by Abdullahi Shuaibu Damat, said the AptFuel application will help people determine product availability at preferred destinations to refuel their vehicles. Shuaibu said that the current happenings concerning deregulation show that there will be price variations that will open a window for people to have choices in the prices of petroleum products. “At the comfort of your home, once you download AptFuel mobile application to your phone, it will give you an insight about the fuel station to utilise in terms of proximity, product availability and best rated according to users.

“The application has a navigation system such as the ‘Uber’ application which will help one to choose a preferred fuel station from one’s comfort zone after comparing prices, then navigate you to the station”, he said.

Damat further stated that Prof. Okoye had over the time studied the challenges faced by Nigerians especially motorists concerning transactions while trying to make payment at the fuel stations. To this effect, users of the application can access the ‘Instant Wallet’ which could allow code generation to be given to a third party (driver) at a stipulated price to be scanned by a fuel attendant for accurate sale and value.

While delivering his speech, Professor Okoye commended Dr. Mele Kyari's leadership at the Nigerian National Petroleum Company Limited (NNPC) and further emphasised the positive strides made under Kyari's tenure. Escaping the burden of losses and achieving significant profits, coupled with transformative initiatives such as the Gwagwalada Independent Power Project, reflect a commitment to driving growth and development within the oil and gas sector.

Dr. Kyari, in turn, lauded Professor Okoye's efforts in knowledge transfer, acknowledging the profound impact of his works on shaping the future of the oil and gas industry in Nigeria and beyond. With their collective vision and expertise, Okoye and Kyari are charting a course towards a more prosperous and sustainable future for the Nigerian oil and gas industry.

Professor Billy Okoye’s pioneering works and technological innovations, alongside Dr. Mele Kyari's transformative leadership, herald a new era of progress and innovation in Nigeria's oil and gas sector. As the industry continues to evolve, Professor Okoye's contributions serve as a guiding light, illuminating the path towards excellence and prosperity in petroleum marketing.

Finally, as the curtains draw close on an eventful evening in Abuja, it's evident that Professor Billy Okoye's legacy transcends the pages of his books and the confines of the lecture hall. His unwavering dedication to unravelling the intricacies of petroleum marketing has not only shed light on the industry's complexities but has also paved the way for innovation and progress.

With his trilogy of works and ground-breaking AptFuel Technology application, Professor Okoye has armed industry stakeholders with the knowledge and tools needed to navigate the ever-evolving landscape of energy commerce. As Nigeria's oil and gas sector stands on the cusp of transformation, fuelled by visionary leadership and scholarly insights, one thing remains certain: the legacy of Professor Billy Okoye will continue to shape the narrative of petroleum marketing for generations to come.

Electrifying the Road Ahead: The Growth of Electric Vehicles in Nigeria

By Abubakar Ismail

In recent years, Nigeria has been experiencing a notable surge in the adoption and growth of electric vehicles (EVs), signaling a significant shift towards sustainable transportation solutions in the country.

This transformation has been fueled by the innovative contributions of indigenous companies which have been instrumental in driving the momentum towards a greener automotive landscape.

Several factors have contributed to the growing popularity of electric vehicles in Nigeria, reflecting both local and global trends.

Environmental awareness

With increasing concerns about air pollution and climate change, there is a growing awareness of the environmental benefits of electric vehicles. Nigerians are becoming more conscious of the need to reduce greenhouse gas emissions and embrace cleaner transportation alternatives.

Rising fuel costs

The fluctuating prices of traditional fossil fuels, such as petrol and diesel, have led many Nigerians to seek more cost-effective alternatives. Electric vehicles offer a compelling solution, as they are generally cheaper to operate and maintain compared to conventional vehicles.

Government initiatives

The Nigerian government has introduced various policies and incentives to promote the adoption of electric vehicles and reduce dependence on fossil fuels. These initiatives include tax incentives, import duty waivers, and investments in charging infrastructure.

Technological advancements

Advances in battery technology, electric drive trains, and charging infrastructure have made electric vehicles more practical and accessible for consumers. Improvements in range, performance, and charging times have addressed some of the key barriers to EV adoption.

Urban congestion and air quality

Nigeria's rapidly growing urban centers are facing increasing challenges related to traffic congestion and air pollution. Electric vehicles offer a cleaner and quieter alternative to traditional vehicles, making them well-suited for urban mobility solutions.

The growth of electric vehicles in Nigeria has been driven by the efforts of pioneering companies that are leading the way in EV innovation and adoption.

Experts attribute the increasing investment in electric buses to the long-term operational cost advantages they offer, resulting in a significant reduction in transportation expenses over time.

Gbenga Faleye, CEO of SAGLEV, emphasised Nigeria's substantial potential for electric vehicles, noting that 50 per cent of Nigerians have access to 12 hours of electricity per week, rendering them potential EV buyers.

Faleye highlighted the viability of electric vehicles due to the already high costs of petrol and diesel, a factor his company has diligently monitored for the past 3-5 years. He emphasised the ripe state of Nigeria's transportation industry, particularly in mass transit, noting the comparative expense of

Gbenga Faleye

operating CNG vehicles.

"We are innovating for the future," O. Paul Andrew the Executive Chairman of BlackPace Group, said. "We are currently setting up supercharging stations at different parks and filling stations; we will replicate Tesla's vision in Nigeria".

BlackPace Group is leading the charge in advocating for the adoption of Electric Vehicles on Nigerian roads, emphasising their zero-emission benefits.

On the other hand, Egoras Technology announced plans to inaugurate 'Egostation', a blockchain-powered electric vehicle (EV) charging station in Rivers State, Nigeria. "Powered by Egoras' proprietary blockchain solution, Egochain, Egostation is poised to revolutionise the landscape of EV charging," the company said.

"This initiative not only ensures heightened transparency but also incentivises station ownership, thereby fostering the widespread adoption of electric vehicles across Nigeria."

The company's innovative solutions have addressed concerns such as range anxiety and charging accessibility, making electric vehicles more practical and convenient for Nigerian consumers.

By developing affordable and efficient battery technologies and investing in a network of charging stations, Egoras Technology has contributed to the viability and sustainability of electric vehicles in Nigeria.

Ugoji Harry, the Chief Executive Officer at Egoras, expressed his enthusiasm for the project, emphasising its transformative potential. "We are excited to introduce Egostation as a game-changer in EV charging technology."

The growing popularity of electric vehicles in Nigeria has significant implications for the future of transportation in the country. Some of these implications include:

Reduced environmental impact

By transitioning to electric vehicles, Nigeria can significantly reduce its carbon footprint and air pollution levels, contributing to improved public health and environmental sustainability.

Energy security

Electric vehicles can help reduce Nigeria's dependence on imported fossil fuels, enhancing energy security and resilience against volatile global oil markets.

Economic opportunities

The growth of the electric vehicle industry presents new economic opportunities for Nigeria, including job creation, investments in manufacturing and infrastructure, and the development of a local EV ecosystem.

Sustainable urban mobility

Electric vehicles offer a sustainable solution to urban congestion and air quality challenges in Nigeria's rapidly growing cities. By promoting the use of EVs for public and private transportation, Nigeria can create more livable and resilient urban environments.

The fluctuating prices of traditional fossil fuels, such as petrol and diesel, have led many Nigerians to seek more cost-effective alternatives. Electric vehicles offer a compelling solution, as they are generally cheaper to operate and maintain compared to conventional vehicles.

FG Ban on Cooking Gas Export and the Aftermath

By Gideon Osaka

The Federal Government recently announced the ban on exportation of liquefied petroleum gas (LPG), commonly known as cooking gas, in a bid to combat the surging prices of the product. This policy direction of the government which is to bolster domestic supply and subsequently drive down cooking gas prices across the nation was announced by the Minister of Petroleum (Gas), Ekperikpe Ekpo, during a crucial gathering of internal stakeholders in Abuja on Thursday, February 22, 2024.

Natural and liquefied gas was the second-highest export of the country, according to a 2021 National Bureau of Statistics (NBS) report. Data from ***Volza***, which tracks export import figures, showed that LPG export shipments from Nigeria in 2023 stood at 118, and the exports were made by 20 Nigeria exporters to 18 buyers. Most of Nigeria's LPG exports go to Turkey, Philippines and Kenya. Nigeria reportedly exported 700,000 tonnes of LPG in 2022. However, the irony is that Nigeria is a net exporter of LPG; however, it is dependent on imported LPG as the import of LPG increases the cost burden on the Nigerian end-user.

Valuechain reports that prior to the announcement of the import ban by the government, the cost of cooking gas had seen a notable escalation, burdening households across major cities. Reports indicate that prices soared to unprecedented levels, reaching between N17,000 and N18,000 to refill a 12.5kg cylinder, a significant surge from the N9,000 the product was sold few months earlier. This

Ekperikpe Ekpo

alarming spike in prices had raised concerns among consumers and stakeholders alike, prompting urgent action from the government.

By halting exports, the government aims to redirect the entirety of production towards meeting local demand, thereby increasing supply within the country. This influx of supply is anticipated to exert downward pressure on prices, providing relief to consumers grappling with the financial strain of high cooking gas costs.

By this action, Nigeria joins countries like Kazakhstan and Niger which recently halted exports of LPG in a bid to bolster prices. To prevent shortages in the domestic market, the government of Kazakhstan in March extended the ban on export of liquefied petroleum gas (LPG) for six months. Niger, five months ago, banned all exports of LPG until further notice. According to the government, national production should be used to supply the domestic market, and in case of surplus, a special authorization can be requested to export it. Niger normally exports its surplus LPG to neighbouring Nigeria.

The latest initiative by the Nigerian government adds to some recent effort and commitment by the government to crash the price of the product and drive the growth of the sector. The government had in November 2023 announced the withdrawal of value-added tax (VAT) and customs duty on the importation of LPG and its associated equipment. The decision to withdraw VAT on LPG was in line with President Bola Tinubu's commitment to improving the investment climate in Nigeria, increasing the supply of LPG to meet local demand, reducing market prices and promoting clean cooking practices. Other items exempted from VAT and duty payment are LPG cylinders, LPG cascades, gas leak detectors, steel pipes, steel valves and fittings, LPG dispensers, gas generators, and LPG trucks, among others.

Interventions have also been made by operators in the LPG market like the Nigeria Liquefied Natural Gas (NLNG) company, which supplies around 40% of the domestic LPG consumption. NLNG recently reiterated its commitment to supply 100 per cent of its LPG production (Propane and Butane) to the Nigerian market in keeping with a January 2023 an-

As LPG stakeholders navigate this evolving landscape, there is cautious optimism for a more favorable future. By extension, what we can do at this point is wait and hope that this initiative proves productive for the general Nigerian populace.

nouncement to begin 100 percent supply of its LPG to the Nigerian market. The company had in 2021, announced it was reducing LPG exports and increasing supplies to domestic market as part of the measures to support the Federal Government's efforts to deepen domestic gas supply and economic growth. It increased domestic supply to 450,000mt per annum, from 250,000mt/year with the balance of its output exported to Western markets.

Market impact one month after

Although it is still early days as the export ban was announced barely one month ago, the intended impact may take some time to be felt in the market. However, ***Valuechain*** market survey showed that the price of LPG has been oscillating in the last one month, even though some locations in Nigeria have reported marginal drop in price. Findings showed that in February, LPG depot prices per 20mt in naira at PPMC Apapa depot, NIPCO, Navgas, Matrix, Stockgap, Prudent, Rain Oil, Dozzy, Techno Oil, 11plc, AA Rano and Shafa Energy depots ranged between N23 million and N22 million. However, in March, average depot prices per 20mt ranged between N21 million and N22 million.

In the retail market, the prices of cooking gas vary significantly across different states. States like Imo, Abia, and Abuja recorded the highest prices, likely due to factors such as transportation costs, local demand-supply dynamics, and distribution inefficiencies. Prices still hovered around N1200 and N1400 per kg.

According to LPG in Nigeria, a social enterprise, championing the use of LPG in Nigeria through advocacy and LPG-related information, the Federal Government's decision to curtail the exportation of LPG signals a proactive response to address these burgeoning issues. By prioritizing domestic supply and channeling production towards meeting local demand, the government aims to alleviate the strain on consumers and stabilize prices across the country. According to the group, the strategic move not only fosters energy security but also underscores a commitment to fostering economic growth and development through the harnessing of Nigeria's abundant gas reserves.

"While the ban on exportation offers a promising avenue for mitigating the challenges facing the LPG sector, its effectiveness hinges on seamless implementation and sustained efforts. Collaborative engagement with stakeholders, including industry players and regulatory bodies, remains paramount to navigate potential hurdles and ensure the smooth execution of the government's directives", the group said in a blog post.

As LPG stakeholders navigate this evolving landscape, there is cautious optimism for a more favorable future. By extension, what we can do at this point is wait and hope that this initiative proves productive for the general Nigerian populace. The ban on exportation represents a crucial step towards reinvigorating the domestic market and revitalizing the industry, offering renewed hope for businesses and consumers alike. With concerted action and strategic initiatives, Nigeria's LPG sector stands poised to overcome present obstacles and emerge stronger, contributing to a cleaner, more sustainable energy future for the nation.

Nigeria Grapples with Impact of Declining Oil Foreign Investment

By Abubakar Ismail

In recent years, Nigeria's economy has faced mounting challenges as foreign direct investment (FDI) in the oil sector shows signs of decline, indicating a shift in the global investment landscape, with profound implications for Nigeria, a country heavily reliant on oil revenue.

According to recent data from the National Bureau of Statistics (NBS), FDI inflows into the country's oil sector have experienced a notable downturn. Figures reveal a decrease of 15 per cent in oil FDI over the past two fiscal quarters alone, plunging from $2.5 billion to $2.1 billion.

"This decline in foreign investment in our oil sector is a cause for concern," remarked Aisha Abdullahi, an Economist. "Nigeria's economy is intricately linked to its oil industry, and any reduction in FDI threatens economic stability and growth prospects".

The ramifications of this dwindling investment are palpable across various sectors of Nigerian society. As oil revenues diminish, the government faces mounting pressure to diversify the economy and reduce dependence on crude oil.

However, progress in diversification efforts has been slow, leaving the country vulnerable to fluctuations in oil prices and investment patterns. For context, Mele Kyari, the Group Chief Executive Officer (GCEO) of the Nigerian National Petroleum Company (NNPC) Limited, emphasized the formidable challenge posed by crude oil theft in Nigeria.

While speaking during a visit by the House of Representatives' Special Committee on Oil Theft to NNPC's headquarters in Abuja, Kyari said that the nation would face dire consequences if the rampant theft of crude oil persists unchecked.

"The decline in oil FDI highlights the urgent need for Nigeria to accelerate its economic diversification agenda," stated Dr. Ibrahim Yusuf, a financial analyst based in Abuja. "Diversification is crucial not only for economic resilience but also for job creation and sustainable development."

The impact of reduced oil FDI extends beyond the economic sphere, affecting social programs and infrastructure development initiatives. With fewer resources at its disposal, the government may face challenges in funding

essential services such as healthcare, education, and infrastructure maintenance, potentially exacerbating socio-economic disparities.

Analysts said that the country must redouble its efforts to attract foreign investment across various sectors and create an enabling environment for businesses to thrive. According to them, this requires robust policies, streamlined regulatory frameworks, and targeted incentives to attract investors and stimulate economic growth.

As Nigeria navigates the complexities of a shifting global investment landscape, stakeholders emphasise the importance of proactive measures to mitigate the impact of declining oil FDI. By prioritising economic diversification, fostering a conducive business environment, and implementing strategic policies, Nigeria can weather the challenges posed by fading oil investment and chart a path towards sustainable development and prosperity.

"FDI serves also as a barometer of how investors perceive the economy. The lowest FDI in 13 years implies that investors have become less comfortable with the long-term stability of the economy," Eze Odiri, a public sector consultant, said.

According to him, it must be noted that 2023 was an election year hence investors may have decided to take a wait-and-see approach.

"FDI which is normally longer-term capital is much more beneficial to a country as it creates the organic growth of businesses, boosts job creation, and eventually generates revenue streams for government via taxation, levies, etc. FDI is also a major source of foreign exchange to the country.

"This reduction in capital importation will lead to less job creation and less revenue for the government in the medium to long term. It also affects the exchange rate as less foreign exchange is available for the CBN.

"The real effect of the Federal Government's foreign investment drive will be seen in capital importation numbers and not on the pages of newspapers," he added.

Last year, Nigeria stood as Africa's third-largest recipient of Foreign Direct Investment (FDI), trailing only Egypt and Ethiopia. Positioned as one of the continent's most promising hubs of economic growth, Nigeria magnetises a plethora of investors across sectors such as hydrocarbon, energy, and construction.

According to the UNCTAD's 2022 World Investment Report, FDI inflows to Nigeria surged to $4.8 billion in 2021, marking a significant uptick from the previous year's $2.3 billion and surpassing pre-pandemic levels.

With a total FDI stock estimated at $91.8 billion, equivalent to approximately 20.8 per cent of the nation's GDP, Nigeria continues to allure investments, with the oil and gas sector leading the pack followed by telecommunications, manufacturing, real estate, and agriculture.

The United Kingdom boasts a rich history of trade and investment with Nigeria, standing out as one of the foremost contributors to the country's economic landscape.

Alongside this established relationship, China has emerged as a significant player in Nigeria's development, notably focusing on bolstering infrastructure through ventures like roadways, railways, and power generation facilities. Similarly, the United States maintains its prominence as a key investor, particularly within Nigeria's vital oil and gas industry.

In the second quarter of 2022, data from the Bank of Nigeria reveals a substantial surge in capital influx, reaching $1.5 billion compared to $875.62 million in the same period of 2021, marking a notable 75.34 per cent increase.

Portfolio investments led the charge, comprising 49.33 per cent (757.32 million), closely trailed by other forms of investment at 41.09 per cent ($630.87 million), while foreign direct investment contributed 9.58 per cent ($147.16 million) to the overall capital inflow.

Remarkably, the United Kingdom emerged as the largest contributor, accounting for 50.8 per cent of the total investment, outpacing other significant investors such as Singapore (9 per cent) and South Africa (8 per cent).

As Nigeria navigates the complexities of a shifting global investment landscape, stakeholders emphasise the importance of proactive measures to mitigate the impact of declining oil FDI. By prioritising economic diversification, fostering a conducive business environment, and implementing strategic policies, Nigeria can weather the challenges posed by fading oil investment and chart a path toward sustainable development and prosperity.

Why Nigeria Plans Ending Electricity Subsidies

By Yange Ikyaa

There have been media reports in recent times that the Federal Government of Nigeria is planning to end subsidies on electricity in the country.

Energy subsidies are measures that keep prices for customers below market levels, or for suppliers above market levels, or reduce costs for customers and suppliers. They may be direct cash transfers to suppliers, customers, or related bodies, as well as indirect support mechanisms, such as tax exemptions and rebates, price controls, trade restrictions, and strategic limits on market access.

However, if such reports of planned subsidy abolition in Nigeria are anything to go by, this will certainly represent a drastic policy shift from the decades-long practice of government spending on making cheaper electrical energy available to Nigerian citizens. But what has informed this swift policy shift on electricity supply in Nigeria?

According to findings by ***Valuechain,*** the abolition of subsidy payments by government on electricity is intended to tackle economic challenges, such as the monumental electricity subsidy debt which continues to perennially eat a dip hole into the government's pocket. It is also expected that reforming the energy sector and improving fiscal sustainability in Nigeria could encourage private investments into the nation's electricity sector.

Industry data show that the government of Nigeria at different tiers has continued to contend with huge debts to electricity generating companies. These debts have been estimated at more than NN1.3 trillion ($870 million), while the electricity subsidy budget for the year 2024 was set at N450 billion ($30 million), which is much below the N2 billion ($1.3 billion) needed to close the gap. In addition, the Nigerian government is also said to owe $1.3 billion to different gas companies around the country. This is because the government covers the gap between the cost-reflective tariffs and the actual end-user tariffs payable by customers, representing about 11% of the final cost.

According to Nigerian Electricity Regulatory Commission (NERC), generation costs represented 49% of end-use tariffs in 2022, followed by distribution costs (24%), efficiency losses (18%), and transmission costs (18%).

The International Renewable Energy Agency tracked some $634 billion in energy-sector subsidies in 2020, and found that around 70% were fossil fuel subsidies, about 20% went to renewable power generation, 6% to biofuels, and just over 3% to nuclear energy production.

The main arguments for energy subsidies include security of supply, where subsidies are used to ensure adequate domestic supply by supporting indigenous fuel production in order to reduce import dependency, or supporting overseas activities of national energy companies, or to secure the electricity grid.

Another argument for it is en-

vironmental and health improvement, where subsidies are used to improve health by reducing air pollution, and to fulfill international climate pledges. For example, the International Energy Administration (IEA) maintains that the purchase price of heat pumps should be subsidized.

Yet others support subsidies for economic benefits, insisting that subsidies in the form of reduced prices are used to stimulate particular economic sectors or segments of the population, such as in alleviating poverty and increasing access to energy in developing countries.

With regards to fossil fuel prices in particular, Ian Parry, the lead author of a 2021 IMF report, said that "some countries are reluctant to raise energy prices because they think it will harm the poor. But holding down fossil fuel prices is a highly inefficient way to help the poor, because most of the benefits accrue to wealthier households. It would be better to target resources towards helping poor and vulnerable people directly."

Furthermore, there are those who still believe that subsidies come with employment and social benefits, where they are used to maintain employment, especially in periods of economic transition.

In 2021, with regards to fossil fuel prices in particular, Ipek Gençsü, at the Overseas Development Institute, said that "subsidy reform requires support for vulnerable consumers who will be impacted by rising costs, as well for workers in industries which simply have to shut down.

"It also requires information campaigns, showing how the savings will be redistributed to society in the form of healthcare, education and other social services. Many people oppose subsidy reform because they see it solely as governments taking something away, and not giving back."

But there are also those who oppose subsidies and their main arguments against energy subsidies are that some energy subsidies, such as fossil fuel subsidies, counter the goal of sustainable development, as they may lead to higher consumption and waste, exacerbating the harmful effects of energy use on the environment, or creating a heavy burden on government finances and weakening the potential for economies to grow by undermining private and public investment in the energy sector.

The opponents of energy subsidies have also argued that, most benefits from fossil fuel subsidies in developing countries go to the richest 20% of households, yet fossil fuels are very critical in the production of electricity worldwide.

Again energy subsidies are accused of impeding the expansion of distribution networks and the development of more environmentally benign energy technologies, and do not always help the people that need them most.

A study conducted by the World Bank finds that subsidies to the large commercial businesses that dominate the energy sector are not justified. However, some experts have insisted that under some circumstances, it is reasonable to use subsidies to promote access to energy for the poorest households in developing countries. Although they further argued that energy subsidies should encourage access to modern energy sources, but not to cover operating costs of companies. Another study conducted by the World Resources Institute found that energy subsidies often go to capital intensive projects at the expense of smaller or distributed alternatives.

The Energy Information Administration (EIA), an independent agency of the U.S. Department of Energy, evaluated the amount of subsidies that the federal government provides energy producers for fiscal years 2016 through 2022, in its report on Federal Financial Interventions and Subsidies in Energy, updating its previous subsidy reports.

According to that report, federal subsidies to support renewable energy formed nearly half of all federal energy-related support between fiscal years 2016 and 2022, while traditional fuels (coal, natural gas, oil and nuclear) received just 15 per cent of all subsidies between 2016 and 2022, with renewables, conservation and end use receiving a whopping 85 per cent.

Renewable subsidies more than doubled between 2016 and 2022, increasing to $15.6 billion in fiscal year 2022 from $7.4 billion in fiscal year 2016. Federal subsidies and incentives to support renewable energy in fiscal year 2022 were almost 5 times higher than those for fossil energy, which totaled $3.2 billion in subsidies. The subsidies in EIA's report do not include state and local subsidies, mandates or incentives that in many cases are quite substantial, especially for renewable energy sources.

EIA also did not include the massive subsidies authorized in the Inflation Reduction Act (IRA) since it was passed in August 2022. Goldman Sachs has estimated the costs of that bill at $1.2 trillion.

Overall, it could be said that energy subsidies require coordination and integrated implementation, especially in light of globalization and increased interconnectedness of energy policies, thus, their regulation at the World Trade Organization is often seen as necessary.

Furthermore, there are those who still believe that subsidies come with employment and social benefits, where they are used to maintain employment, especially in periods of economic transition.

Why Oil Production in Nigeria Remains More Expensive

By Yange Ikyaa

Recently, the Organization of the Petroleum Exporting Countries (OPEC) advised the Nigerian National Petroleum Company (NNPC) Limited to increase oil production in the country in order to derive increased advantage from the $14 trillion investment opportunity in the global oil market.

OPEC Secretary General, Haitham al-Ghais, while making the call, said that despite the pushback on oil and gas production from different interest groups across the globe, the world would still require about $14 trillion worth of investments from now till the year 2035 to be able to meet global demand on the commodity.

The OPEC Boss further expressed that his Vienna-based organization remains in agreement with NNPC's view of broad-minded perspective on energy, opposing the position being advocated in some quarters that considers certain energy sources as adverse. He reiterated OPEC's commitment to working closely with the NNPC to achieve Nigeria's aspirations towards attracting investments and growing petroleum production.

While al-Ghais' advice to Nigeria to do everything possible to tap into the $14 trillion global opportunity by raising petroleum production volumes and continue to make oil and gas a reliable source of energy to the world remains in force; the high financial cost of heeding to it may constitute a hindrance to this national economic ambition.

This is because Nigeria has been labelled as the second most expensive nation in the world in terms of crude oil production, and second only to the United States' shale oil extraction.

According to official figures, oil companies operating in Nigeria quote an average of $48.71 as their cost of producing crude oil per barrel in the country.

"The oil companies know we tax the difference between the selling price and the cost of production, which is why they gave us $48.71 as their cost of production," said Zacch Adedeji, Chairman of the Federal Inland Revenue Service (FIRS), during his agency's 2024 budget presentation to lawmakers at the National Assembly.

Much of this production cost is however said to stem from insecurity, commonly in the Niger Delta area of Nigeria, where crude oil production takes place in the country, leading to some arguments that, it is much cheaper to produce crude oil in Iraq, a war-ravaged nation, Saudi Arabia or in Iran than in Nigeria.

It is now common knowledge in Nigeria that oil companies operating in the Niger Delta routinely allocate huge budgets to mili-

tants in the area, who threaten the security of their assets. They are also faced with multiple taxations amidst other ancillary costs.

Not too long ago in the last quarter of 2023, President Bola Ahmed Tinubu renewed the contract of Tantita Security Services, owned by ex-Niger Delta militant leader, Government Ekpemupolo, popularly known as Tompolo, to protect oil and gas pipelines, as well as other petroleum assets in the creeks of the Niger Delta and also in Ondo State.

All these negative factors combine to make Nigeria a rather expensive country for oil production, with the $48.71 per barrel cost placing Nigeria among oil-producing nations with the highest cost of crude oil production anywhere in the world.

According to Rystad Energy, the South American nation of Brazil spends roughly $35/barrel on pre-salt oil production costs. Nearby in Venezuela, the cost of producing a barrel of oil falls between $15 and $30.

The cost of producing a barrel of oil in the United States varies by region, but shale oil production costs range on average between $35 and $70 per barrel, with oil production by conventional means costing about $20 to $40 per barrel.

Then, in Saudi Arabia, the country boasts of some of the lowest production costs in the world, ranging between $2 to $8 per barrel. Still in the Middle East, Iran has relatively low production costs, estimated to be around $10 to $15 per barrel, despite grappling with challenges relating to international economic sanctions imposed by the West on account of its nuclear programmes.

In the United Arab Emirates, the cost of producing a barrel of crude oil falls between $10 and $20; while Iraq has cheap production costs, estimated at around $10 to $20 per barrel.

For China, crude oil production costs remain relatively high, yet lower than what is obtainable in Nigeria, as the world largest market produces oil at an estimated cost of around $35 to $40 per barrel.

In Russia, crude oil production costs range between $15 and $25 per barrel, as compared to Nigeria's $48.71.

Recently, the Group Chief Executive Officer (GCEO) of the Nigerian National Petroleum Company (NNPC) Limited, Malam Mele Kyari, blamed the high average cost of crude oil production in Nigeria on insecurity and other sundry issues.

His words: "Security means everything to the oil and gas sector. Insecurity doesn't stop the oil and gas industry from operating. They (oil companies) operate in Afghanistan, any country that you know there's conflicts, but what it does is that it adds a premium to the cost of production."

The NNPC Boss made this assertion during a speech as a guest speaker at the 2024 Faculty of Science Lecture at the Obafemi Awolowo University, Ile-Ife, where he further noted that "in our country today, when businesses come here from other countries, they know that, what would cost $100 in one country, you probably want to add another $30 in this country."

As a result of these challenges, more and more multinational petroleum companies are relocating to offshore destinations for their new projects, where production is more secure and insulated from armed militants; although this new trend requires enormous financial commitments.

Many big names in the industry are leading the way in these relocations to offshore drilling. The recent decision by Shell to sell its onshore assets in Nigeria for $2.4 billion is the most notable of these onshore departures.

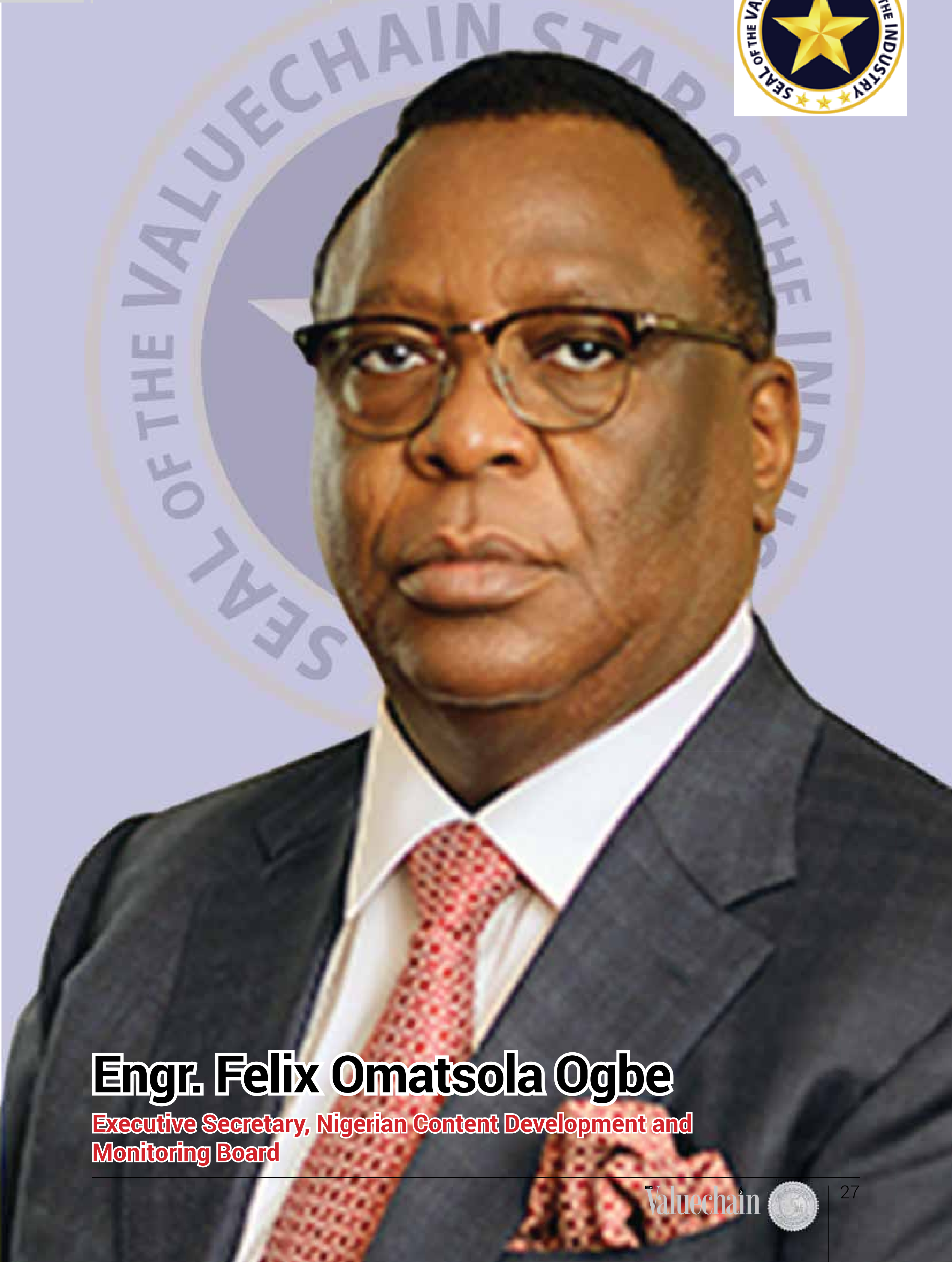
In addition to the numbers, Italy's Eni disclosed in the third quarter of 2023, its intention to sell its onshore division to one of Nigeria's indigenous energy giants, Oando. But prior to this development, a Chinese firm, Addax, had earlier sold its onshore assets of four oil blocs to NNPC Limited.

Also, not left out in this goodbye spree to Nigerian onshore oil business is Norwegian petroleum company, Equinor, which terminated 30 years of energy dealings with Africa's most populous nation and largest economy, late last year.

But the most shocking element of this disclosure was Equinor's decision to sell its Nigerian subsidiary to a little-known company, Chappal Energies.

Much of this production cost is however said to stem from insecurity, commonly in the Niger Delta area of Nigeria, where crude oil production takes place in the country, leading to some arguments that, it is much cheaper to produce crude oil in Iraq, a war-ravaged nation, Saudi Arabia or in Iran than in Nigeria.

COURIER & LOGISTICS



Engr. Felix Omatsola Ogbe

Executive Secretary, Nigerian Content Development and Monitoring Board

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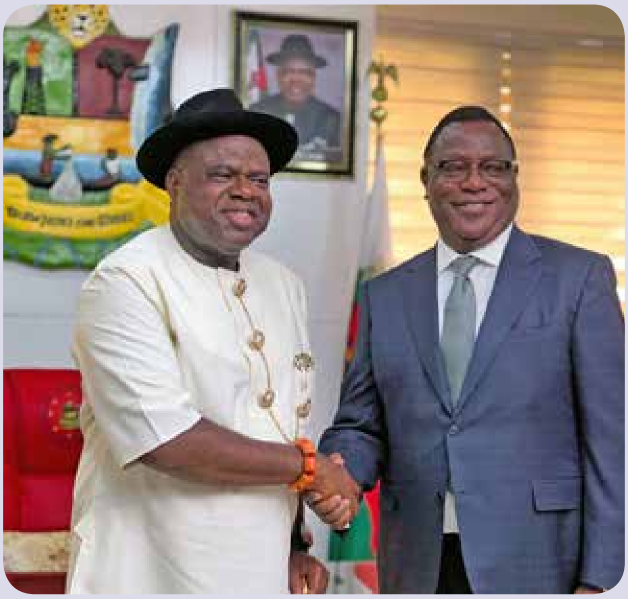
By Danlami Nasir Isah

He managed several in-house construction services to support CNL activities and operations in Nigeria including the Escravos Gas to Liquid (EGTL) Plant and Gas Plant in Escravos, Nigeria; the Escravos Gas Project (EGP - 3B), Lagos and Warri; East Area (Rivers, Bayelsa, Imo & Offshore Construction group), with responsibility for Engineering Designs and Construction requirements to support East Area, overseeing fabrication yards construction activities, oil production activities and drill sites preparation in swamp locations in Rivers State; whilst also supervising construction of buildings for living and office accommodation.

Engr. Felix Omatsola Ogbe was appointed as the Executive Secretary (ES) of the NCDMB on December 7, 2023, by His Excellency, President Bola Ahmed Tinubu, GCFR. In this role, he is saddled with the responsibilities of overseeing the entire operations and management of the organization.

Engr. Felix Ogbe will have oversight over Nigerian Content performance in the Nigerian oil and gas industry. He will drive the 10-Year Strategic Roadmap which the NCDMB instituted in 2017 with a target of 70% Nigerian Content retention at the end of 2027. He will also lead the continent-wide local content initiatives driven by NCDMB in partnership with organisations such as APPO, Afrexim Bank, AfDB, etc.

Prior to his appointment, Engr. Felix Ogbe was the Managing Director BREFEL Limited/NIMA Energy LLC. In this role, he was responsible for overseeing various projects executed by the company across the



oil and gas industry, medical and Medicare services/projects, within and outside Nigeria.

He spent 24 years in Chevron Nigeria Limited, from 1990 – 2014, retiring voluntarily to set up his private firm. He has varied and extensive experience in oil and gas facilities, onshore and offshore; LNG; Water Drilling, Treatment, and Storage facilities; Civil, Building, and Dredging; and other construction experience in Nigeria, Africa, Busan South Korea, and United States of America from Conceptions, Engineering Designs, Project, and Construction Management to Commissioning Phase.

He managed several in-house construction services to support CNL activities and operations in Nigeria including the Escravos Gas to Liquid (EGTL) Plant and Gas Plant in Escravos, Nigeria; the Escravos Gas Project (EGP – 3B), Lagos and Warri; East Area (Rivers, Bayelsa, Imo & Offshore Construction group), with responsibility for Engineering Designs and Construction requirements to support East Area, overseeing fabrication yards construction activities, oil production activities and drill sites preparation in swamp locations in Rivers State; whilst also supervising construction of buildings for living and office accommodation.

He also served at the San Ramon, California, USA Headquarters of Chevron where he worked on Project Estimation, Costing and Budgeting, Projects Specifications and Implementation, Safety in Design, Use of Software for project costing and budgeting (COPES), etc.

He has attended several courses both within and outside Nigeria including but not limited to Design and Construction Strategy for Oil and Gas Production Facilities, Project Execution and Management, amongst others, and he is a member of several professional organizations, some of which are: Member, Nigerian Society of Engineers; Member, Council of Registered Engineers of Nigeria (COREN), and American Institute of Civil Engineers.

Engr. Felix Ogbe holds a Master's degree in Civil Engineering and another Master of Science (MSc) degree in Construction Management.

The Executive Secretary's personal interest and hobbies include Football, Music, Travelling, Reading, and Writing.

He is married with children.

Oil Theft Tactics Rejig Overdue

By Gideon Osaka

The rising spate of crude oil theft and pipeline vandalism has ignited concerns over the effectiveness of the measures deployed by the Federal Government to stem the hydra-headed existential economic challenge facing the country. Amid multi-billion naira pipeline surveillance contracts awarded to local security outfits, the Nigerian National Petroleum Company (NNPC) Ltd. has continued to decry its inability to deal with the scale of oil theft and vandalism in the country as more efforts yield less of the desired outcomes.

Valuechain reports that from all indications, the priority of the government is to crack down on organized gangs and thieves sabotaging critical oil assets in the Niger Delta, rather than dealing with the root cause of the problem. This is evident in the scale of incidents and discoveries reported regularly by the NNPC and other NNPC-funded local and national security outfits.

For instance, early this year, the NNPC Limited announced that it recorded 112 incidences of crude oil theft between December 23 and 29, 2023 in the Niger delta. In a documentary posted on its X handle, the company revealed that 42 illegal refineries were discovered in Konsho and Tebidaba in Bayelsa state; Obokofia in Imo state; Ogidigben, Mereje and Obodo Omadina, in Delta state. Illegal refineries in Umuire, Abia state, and Upata in Rivers state, were also discovered and destroyed. Within one week (December 30, 2023 and January 5, 2024), the company announced it recorded 157 incidents. According to a report made available to the public at the time, 52 illegal refineries were discovered in Obuzo and Owaza in Abia, Ohaji/Egbema in Imo, Rumuekpe in Rivers and Otuesegha in Bayelsa. Illegal storage sites were also uncovered in parts of Akwa Ibom State.

The spate of oil theft and vandalism continued unabated, as between January 6 and 12, a total of 211 incidents were reported, with no fewer than 83 illegal refineries discovered. Between January 13 and 19, the company announced that 214 incidents of oil theft were recorded in the region. According to the oil company, "72 illegal refineries were discovered across several locations" in Rivers, Bayelsa and Abia states especially in Ogubolo, Rivers, "where an illegal refinery is being destroyed". 42 illegal oil connections were uncovered in Rivers, Delta and Bayelsa states. Also, 26 cases of vandalism were reported in Rivers and Imo. Two cases of oil spill caused by vandals and eight illegal storage sites were discovered across several locations.

Between 10th and 16th of February, 2024, the NNPC Limited announced it discovered 223 fresh illegal connections and illegal refineries. As seen in a two-minute video it posted on its X handle, sacks of crude oil were discovered in Warri, while cans of crude oil were seized in Edo State. More oil sacks were also seized in Oloibiri, Bayelsa State. Vandalised wellheads and pipelines were spotted in Bayelsa, and vehicles used for operations by the oil thieves were seized in Ole, Ugheli, and Warri in Delta State.

Providing insight as to the scale of crude oil theft since 2022, Group CEO, NNPC, Mele Kyari told the House of Representatives Special Committee on Oil Theft who were on an oversight tour at the NNPCL Towers on Wednesday March 13, that, at least 6,465 illegal refineries have been discovered and destroyed while 4,876 illegal connections to pipelines have been discovered and removed.

We need help

Apparently overwhelmed by the growing threat the continued theft of oil has on the country's economy, the NNPC Ltd had on Monday,


Mele Kyari


Siminalayi Fubara


Ola Olukayode

March 11, reached out to the Economic and Financial Crimes Commission (EFCC) for help to tackle the menace of crude oil theft. Making the appeal at an interactive session with the EFCC's helmsman Ola Olukoyede at the NNPC Towers in Abuja, the Group CEO of the company, Mele Kyari, spoke passionately about the efforts by NNPC Ltd. to eradicate and stem crude oil theft and pipeline vandalism, contending that going by the volume of oil stolen daily and the brazenness with which the perpetrators operate, crude oil theft was the most humongous and virulent economic crime that must attract the attention of the EFCC.

"There is one big challenge that you will need to help us with, Mr. Chairman. That challenge is crude theft. Today, we have disconnected up to 4,846 illegal pipes connected to our pipelines; that is out of 5,543 such illegal connection points. That means there are a vast number of such connections that we have not removed."

"These things don't just happen from the blues. They happen in communities and locations we all know. As we remove one illegal connection, another one comes up. It is sad".

Decrying the state oil firm's inability to continue to deal with the scale of oil theft, Kyari two days earlier during an oversight visit by the House of Representatives Special Committee on Oil Theft/Losses, revealed that the scale of the infraction was unbelievable and the company would not be able to deal with it.

Valuechain reports that crude oil theft has been on the increase in the Niger Delta despite efforts to stem the tide. The situation continues to threaten the 28.77 trillion naira 2024 budget which is based on crude oil production of 1.78 million barrels per day. Though there seems to be a gradual improvement in oil production, the country is still below the OPEC quota of 1.58 million barrels per day in 2024. The country's inability to meet her production targets has been largely attributed to crude oil theft.

Theft continues despite multi-billion contracts

The menace continues to ravage the industry despite acclaimed industry-wide security collaboration and a number of successes, especially joint operations with the Nigerian military, which has resulted in the destruction of several illegal refineries.

The admittance of its inability to deal with theft and vandalism calls for the review of multibillion naira pipeline surveillance contracts to the local security firms engaged and national security forces. Amid public outcry, local security outfits like Pipeline Infrastructure Nigeria Limited (PINL), Maton Engineering Ltd and Tantita Security Services Ltd. have continued to clinch lucrative pipeline surveillance contracts from the state oil company. This is outside the support funding the company offers to government security agencies.

Of particular public interest is NNPC's reported renewal of the pipeline surveillance contract to Tantita Security Company led by former militant leader Government

Of particular public interest is NNPCL's reported renewal of the pipeline surveillance contract to Tantita Security Company led by former militant leader Government Ekpemepulo aka Tompolo for three years, in a move acknowledging the efforts of Tantita in combating oil theft. The contract was first awarded in August 2022 to protect critical oil and gas infrastructure and secure permanent peace in the oil rich Niger Delta region.


Nuhu Ribadu


Senator Heineken Lokpobiri


Tompolo

Ekpemepulo aka Tompolo for three years, in a move acknowledging the efforts of Tantita in combating oil theft. The contract was first awarded in August 2022 to protect critical oil and gas infrastructure and secure permanent peace in the oil rich Niger Delta region. Based on the contract reportedly worth N48bn per year (N4bn per month), Tantita Security Services Limited, was expected to protect all oil pipelines crisscrossing nearly all the states in the Niger Delta: Delta, Ondo, Imo, Rivers and some parts of Bayelsa State, in collaboration with other major stakeholders in the oil-bearing communities in the region.

The Group CEO of the NNPC Limited, Mele Kyari, had in August 2022, justified the government's decision to award the pipelines surveillance contract to Tantita, explaining that the decision was necessitated by the need to hire private contractors to man its oil pipeline network nationwide due to massive oil theft.

He said, "the security agencies are doing their part, end-to-end pipeline surveillance would require the involvement of private entities and community stakeholders. We need private contractors to man the right of way to these pipelines. So we put up a framework for contractors to come and bid and they were selected through a tender process. And we believe we made the right decision," the NNPC boss stated then.

Although some stakeholders in the Niger Delta have openly criticized the decision to award such surveillance contract to "one man", chief among them are Rivers State Governor, Siminalayi Fubara, and Mujahid Asari-Dokubo, ex-militant leader and founder of the Niger-Delta People Volunteer Force (NDPVF), the local security outfit continues to garner support from critical stakeholders in the government.

While the Senate, through its Committee on Petroleum (Upstream) has backed the decision last November to award the contract to Tantita, the Minister of State for Petroleum (Oil), Senator Heineken Lokpobiri, also supported the idea, expressing "gratitude to Tantita that has been commissioned by the NNPC to be able to do some work" on the problem of pipeline vandalisation and illegal bunkering, which he said has become an existential problem. On his part, the National Security Adviser (NSA), Nuhu Ribadu after inspecting illegal facilities in Delta State with Lokpobiri on Saturday, August 26, 2023, said the Federal Government would sustain its partnership with Tantita Security Services Limited, to curb the crime of pipeline vandalism and oil theft in the Niger Delta.


Asari Dokubo

Experts have cautioned that, leaving the security of pipelines in the hands of militants rather than government establishments is not sustainable as this would only encourage other militants to increase their capacity to disrupt government installations to gain attention.

Others wondered why the government would fund locals to protect assets whereas the Petroleum Industry Act 2021 made host communities responsible for the security of oil installations. There is a provision that 3% of the budget of oil companies be paid to Host Community Trust for the development of their communities. The law envisages that, if members of host communities destroyed oil installations, the cost of repairs shall be deducted from the 3%.

Africa Energy Bank crucial to Energy Salvation in the Continent

– APPO Sec. Gen, Dr. Omar Farouk Ibrahim

In the realm of African energy, few voices resonate with as much authority and insight as that of Dr. Omar Farouk Ibrahim, the Secretary General of the African Petroleum Producers' Organization (APPO). With nearly four decades of experience in the oil and gas industry and a profound commitment to advancing Africa's energy landscape, Dr. Ibrahim stands at the forefront of shaping the continent's energy destiny.

As the driving force behind APPO's strategic initiatives and regional collaborations, Dr. Ibrahim has been instrumental in steering Africa towards a path of sustainable energy, oil and gas development. While APPO acknowledges the global shift towards renewable energy sources, it believes that the current drive for energy transition is more ideologically driven than environmentally motivated. APPO emphasizes the importance of maintaining energy security and argues for the development of technologies to make oil and gas production more environmentally friendly.

APPO is focused on addressing challenges facing the African oil and gas industry, including financing, technology, and market development. Efforts are being made to reduce dependence on foreign financing, technology, and markets, and to enhance regional cooperation in these areas.

APPO's main focus for 2024 is the establishment of the Africa Energy Bank, which aims to provide necessary funding for energy projects across the African continent, particularly in the oil and gas sector. The bank is expected to become operational by the middle of the year.

As a driving force in the African oil and gas sector, APPO emphasizes the importance of cooperation and collaboration among member countries, especially in policy-making and operations. Technical forums, such as the Forum of Chief Executive Officers of National Oil Companies and the Forum of Directors for Training, Research, Innovation, and Development, have been established to facilitate this collaboration.

In this exclusive interview, we delve deep into Dr. Ibrahim's vision for the future, exploring APPO's groundbreaking initiatives, strategies for fostering collaboration among African petroleum-producing nations, and the organization's response to the evolving global energy landscape.

Valuechain's William Emmanuel Ukpoju *embarks on a journey through the complexities and opportunities of Africa's energy sector, guided by the unparalleled expertise and unwavering dedication of Dr. Omar Farouk Ibrahim.*

Dr. Omar Farouk Ibrahim

For record purposes, we would like you to kindly introduce yourself, Sir.

My name is Dr Omar Farouk Ibrahim, I'm the Secretary General of the African Petroleum Producers' Organization (APPO), and I am also the regional chair for the Africa World Energy Council. The African Petroleum Producers' Organization (APPO) has its Headquarters in Brazzaville, Congo and it has 18 member countries. It has been 37 years since it was founded.

Could you provide an insight into the initiatives and priorities of APPO for 2024?

Thank you very much. For APPO, we don't look at issues in terms of months and years. We look at issues in terms of short, medium and long-term because, for the oil and gas industry, it's not something that you will say I have started something this year and I want to achieve it this year. What we expect to materialize from what we have been working on in the last year and a half is the Africa Energy Bank. We have been working since mid–2022 on establishing the Africa Energy Bank. For this year, APPO looks forward to the take-off of Africa Energy Bank, an institution that we believe will fill the gap regarding the decisions of the countries on which we have been depending for funding our oil and gas projects, particularly in Africa. The Africa Energy Bank will become operational by the middle of this year and we look forward to it being able to provide the necessary funds for energy projects on the African continent, particularly Oil and gas projects.

How is APPO promoting collaboration among African-petroleum producing countries?

I think it is important that APPO was established in 1987 in Lagos, Nigeria; and for the first thirty-something years, collaboration or cooperation has been limited to ministerial meetings, and meetings of experts; but after the reform of APPO, a reform that was informed by the global paradigm shift from fossil fuel to renewable energies which is euphemistically called the energy transition, we came to the conclusion that, if you really want to make progress in the African oil and gas industry, no country can make that progress all by itself. We needed greater cooperation and collaboration not just in policy-making but also in operations. As a result, we established some very important technical forums. The first is the forum of Chief Executive Officers of National Oil Companies of APPO member countries. In the last two years since the establishment of that body, we have had five meetings, the sixth one will take place in Equatorial Guinea. The first was in Luanda, the second in Abuja, the third was again in Luanda, the fourth was in Algiers, fifth in Brazzaville and the sixth will be held in Equatorial Guinea.

The importance of these meetings lies in the fact that; in the last meeting for example, out of the eighteen member countries of APPO, sixteen CEOs were at that meeting in person and two were represented. We were talking about the challenges facing the industry in terms of operations – how to go about it, how to pull resources together, and why it doesn't make sense for individual African countries to go out searching for solutions to common problems. Why don't they come together to do this? And that's exactly what we are doing. That same body advised on the need to establish a forum of directors, training, research, innovation and development institutions in Africa, we have had two meetings already and the third is going to be in Nigeria, sometime in April. There is now a greater understanding in Africa that the salvation of the continent lies in the hands of Africans but individually as countries, that salvation cannot come to them. They need to put their hands and resources together and that is exactly what APPO is championing and we are confident that we are on the right path. We are working towards creating regional centers of excellence in the various sectors of the oil and gas industry. In the past, every country has its training institutions and research institutions in oil and gas, but these are very expensive enterprises – you need a lot of money to say that you have excellent institutions. The only way to go about this is to come together, pull resources together and have a synergy that will enhance the oil and gas sector in Africa.

What strategies is APPO employing to address challenges such as fluctuating oil prices as they affect member countries?

To us in APPO, stabilizing the oil market is not one of our responsibilities. We do that through our members who are in OPEC. OPEC is responsible or sees it as its responsibility to work to stabilize the global oil market and in doing that, our member countries that constitute a majority of OPEC are fully on board and they do everything they can to do that. In APPO, our concern is how you address the challenges that are today facing the African oil and gas industry and these are essentially three; one is the financing of the oil and gas industry because in the last 70 to 100 years that Africa has been producing oil and gas, we have come to depend heavily on foreign financing. The

One, a country has to pay its subscription, and a country has to provide APPO with the Headquarters of the bank, fully furnished. Also, a country has to ratify the Charter of the bank and the host country agreement.

Dr. Omar Farouk Ibrahim

second challenge is technology. Just as we have depended on foreign finance for our oil and gas, we have also depended heavily on foreign technology for our oil and gas production. Finally, we have also depended heavily on foreign markets for our oil and gas. Merely a hundred years of producing oil and gas on the African continent, Africa still exports 75% of the oil that it produces and over 45% of the gas that it produces. And this is done at a time when Africa has nearly a billion people living without access to modern energy, over six hundred million do not have access to electricity. The challenge is how do we ensure that we are able to finance our projects even if we don't get money from the traditional funders of our industry. How do we master the technology of oil and gas when these foreigners have decided to move away with their technologies and have stopped research in oil and gas; how do we develop our own market because we have the people, we have the potential; what we have failed to do is to develop the market. And this is what APPO is doing.

What are some of the concrete steps APPO is taking to promote gender equality and inclusivity within the sector in Africa?

Let me tell you sincerely, that I don't believe in this gender equality in oil and gas. Anybody can go into the industry and do it; if you succeed, you succeed. I mean, you guys go and take ideas from somewhere and you come and implant it in your society, I don't believe in it. I give women their rights, their privileges and powers just like I give men. I'm not going to say because you are a woman then... I mean don't carry things from depraved societies and... no, I don't want that! Sorry!

Lastly Sir, with the global shift towards renewable energy sources, how is APPO adapting its focus to embrace sustainable energy practices? We know you have been forthright concerning this issue.

We have no problems with renewable energies or what you call sustainable energy. Let me tell you sincerely, personally, I don't believe that the current drive for energy transition is informed by a concern for the environment. I believe it is more ideologically driven because the powerful countries of today do not have or control today's modern energy. If it's Europe that has the reserves that are found in the Middle East and Africa today, what they will be talking about is not abandoning oil and gas but they will be talking about technologies that will make oil and gas environmentally friendly. The technologies are there but they are not determined to further develop and deploy them because they believe that if they do that, that which they call energy security will not be there. They are afraid to put their destinies in the hands of people that they can't control yet these are the same people who are telling us "The world is a global village"; trade should be everywhere... open your borders but there are areas that they say no, we can't open our borders because they are too secure. We want to be able to control our energy, to own it and we do not have that technology. Whether you stay with oil and gas or move to renewables, the trap is there. You are not going to abandon oil and gas for real energies that you don't even control and you don't have the means of producing, researching and so on. We don't have the power to stop this, but we are not going to abandon what we have for what we hope to get.

In conclusion Sir, do you think Nigeria stands a chance as regards situating the Africa Energy Bank Headquarters in Nigeria?

Africa Energy Bank is a project of the eighteen member countries of APPO and Afreximbank. Nigeria is a member like any of the eighteen countries. As of today, we closed the nominations, seven member countries of APPO have indicated interests, and we have sets of criteria for selection. Whichever country that meets the criteria best will get it. Yes, Nigeria is the biggest producer, yes, Nigeria has the largest population, and yes, Nigeria is a leader in the oil and gas industry in Africa, but Nigeria should not take things for granted.

What are some of these criteria that a member country should fulfill before it can be considered for the Africa Energy Bank?

One, a country has to pay its subscription, and a country has to provide APPO with the Headquarters of the bank, fully furnished. Also, a country has to ratify the Charter of the bank and the host country agreement. These are the key items, the rest are, that the country must provide a conducive environment for banking operations.

Presidential Executive Order (PEO) 2024 on Non-Associated Gas Development in Nigeria: Matters Arising and Pedagogical Perspectives

Professor Omowumi O. Iledare

1.0 Preamble

The Presidential Executive Order (PEO) 2024 to incentivize non-associated (NAG) Greenfield Development has received great acclamation among industry stakeholders and energy analysts. The oil and gas companies operating in the shallow-water and onshore terrains in Nigeria are majorly thrilled at the ease at which the NAG order came to pass. The PEO 2024 aims to make investments in NAG projects competitive and attractive to investors. Interestingly, Nigeria has done laudable things in the past to spur gas development within the context of investment attractiveness and competitiveness. However, not much empirical evidence is there to support that such incentives for gas development have contributed meaningfully to the national economy in terms of the total value of goods produced and services provided in Nigeria. Excellent examples include NLNG fiscal incentives, the Associated Gas Flaring Act incentives, the Gas -to-Liquid incentives, and the many incentives in the PIA targeted at natural gas development. As a matter of fact, the contribution of gas to the federation account despite the proliferation of gas targeted incentives, over the last several decades, leaves much to be desired. Thus, this op-ed aims to instructively espouse the importance of fiscal rules of general applications in the implementation of PEO 2024 to expand the development of non-associated gas with intergenerational implications. The premise being that a thousand cubic feet incentivized to be produced or developed without maximizing the mutuality of interests of all stakeholders is bound to be suboptimal. Thus, effectiveness and efficiency in the implementation strategy must be beyond rent seeking and rent sharing but for maximizing the social well-being of citizens in the Federation without compromising fiscal attractiveness and competitiveness.

2.0 NAG executive order synopsis

According to sources, the NAG Order 2024 stipulates that there shall be a tax credit of $1 per MSCF of gas or 30 per cent of the fiscal gas price for gas production from NAG greenfield projects, whichever is lower. However, the Natural Gas Liquids (NGL) content from such greenfield NAG project must not exceed 30 barrels per Million Standard Cubic Feet (MMSCF) to earn the tax credit. There is also a stipulated period, January 1, 2029, within which such a project can earn the tax-credit benefit. This additional noble specification, perhaps, is to enable immediate investment action and produce impactful results. On the other hand, if the NGL exceeds 30 barrels per MMSCF but less than or equal to 1,000 barrels per MMSCF, then the gas tax credit shall be at the rate of US$0.50 per MSCF or 30 per cent of the fiscal gas price, whichever is lower.

For sustainability, the NAG development incentives stretched beyond the immediate bounded time. Greenfield NAG projects that do not start commercial gas production by January 1, 2029 shall be eligible for gas tax allowance of US$0.50 per MSCF or 30 percent of the fiscal gas price, whichever is lower. There is a caveat that the NGL content does not exceed 100 barrels per MMSCF to qualify. It is important to understand the difference between tax credits and tax allowances. The former is a deduction from a chargeable tax and the latter is a deduction before estimating chargeable tax. Every taxpayer prefers the former to the latter. That truism, perhaps, is evident in the enthusiasm at which industry players embraced PEO 2024, notwithstanding the caveat that, after ten years the tax credits shall become tax allowances in perpetuity. There is also another stipulation that is important to note- the gas tax credit shall not exceed the company income tax payable for that year by that company. Of cause, this derives from lessons learnt from the PSC 1993 investment tax credit saga, with an unending tax credit based on efforts with little or no consideration for output and with no dynamic impact on the petroleum profit tax dynamics.

To the extent possible, however, and with effective and efficient implementation, which of course may have institutional delimitation because of lack of institutional empowerment and societal prebendalistic propensity to be transactional; the Order is in line with the PIA philosophy to reward output rather than efforts. PEO 2024 is certainly creditable because of the silence of PIA 2021 on production allowance for gas and specifically, NAG. However, PEO 2024 is not an Act but a Presidential Executive Order that is subject to political premium and constituency powerplay, which the PIA was designed to avoid. That the President opted for an Executive Order beats my imagination and makes me to think differently from those that have been humming praise about this NAG Order. Not all things that are lawful are beneficial,

especially if stakeholders' mutuality of interests is sub-optimal in the long run with no empirical evidence of value creation to the economy.

3.0 PIA 2021 fiscals and PEO 2024

Some petroleum economists would rather have embraced an amendment to the PIA 2021 to correct the very last-minute dismantlement of fiscal rules of general applications. The subversion of the core principles of the dual tax system along with compromising the progressive royalty schemes in the PIA 2021 Act enabled stakeholders' equity dilemma. Is PEO 2024, therefore a formal indictment on PIA 2021 fiscals in respect of gas development? A quick review of the classical elements in fiscal regimes, which anchor petroleum rent extraction mechanism, could help answer the question. Understanding the dynamism of mutuality interests among the stakeholders—investors, government, and the society competing for the huge economic rent from petroleum resources development is critical. Interestingly and more often than not, of the three stakeholder groups listed above, the well-being of the society with intergenerational implications is usually compromised if fiscal rules of general applications are not properly applied in fiscal systems design.

Thus, the progressive royalty schemes, the dual tax system, and incentives based on rewards formed the core principles underlying the conceptual framework of PIA 2021. Abiding by the fiscal rules of general applications guarantees competitiveness and attractiveness of fiscal system for investors, and of course, an equitable share of economic rent for the federation account. Thus, equity, efficiency, and effectiveness with Pareto of optimality condition drive the PIA 2021 expectations. Unfortunately, too, the government holding trust for the society tends to surrender its inheritance on the platter of competitiveness and attractiveness trump-card as evident in the last three months of the 20 years PIB journey to PIA and the rapidity of the issuance of PEO 2024, in my opinion. Here are the facts to ponder using the three classical instruments in the PIA 2021 that were compromised and should be amended for posterity.

First, the royalty design in the PIA has three terrains-onshore, shallow water, and deep offshore and three tranches design to slide by production. For the first time also, natural gas either as free gas, solution gas and/or non-associated gas has its own royalty scheme. The drive for competitiveness and attractiveness led to an unjustifiable compromise that led to PEO 2024 to appease majorly by operators in the shallow and onshore terrains. The royalty for natural gas did not follow the original scheme, which differentiates rates by terrain. Instead, the royalty for natural gas was differentiated by market—domestic or international, thereby creating a loophole, which perhaps led to the agitation for the PEO 2024 for NAG.

The second misalignment in the PIA is the special treatment of the deep offshore terrain with respect to the oil royalty scheme based on two tranches rather than three. Of course, we can guess why, the power of the political action capital of oil and gas companies operating in the deep offshore terrain is incredible. It was not difficult for the shallow water operators to see the skewness and waited in the wings to strike. PEO 2024 conceptualization offers the platform to strike quickly, and quickly they did. Thus, in the short run at the least and also in the process, the federation account become delimited and the society is marginalized further even with the PEO 2024 on NAG.

Third, the dual tax system designed to protect CITA with the creation of resource tax, called Ni-

It is quite understandable to identify with the public affirmation and acclamation President Bola Ahmed Tinubu (PBAT) received for issuing PEO 2024. Honestly speaking, however, and even if I am the only Jeremiah in town, targeting NAG with PEO 2024 instead of amending the PIA 2021 is ill-advised and time will tell.

geria Hydrocarbon Tax (NHT) is truncated in the PIA 2021 Act. The Hydrocarbon Tax in the PIA 2021 designed to guard or protect government access to gross revenue without delimiting the attractiveness and competitiveness of fiscal regimes in Nigeria is compromised. The purpose was to give room to incentives targeted at hydrocarbon capacity expansion, reserves growth and government revenue tied to new capacity. To further enhance the desired progressive characteristic of fiscal regime in Nigeria, the NHT was terrain-based and with differential rates. Unfortunately, again, political expediency trumped efficiency, effectiveness, and equity. The stakeholder group interested much more in prosperity than posterity of the federation persuaded the political elites to exclude deep offshore terrain from NHT and used the evolving energy landscape to erroneously exclude natural gas from NHT. Do I see the same political power play with respect for PEO 2024? You bet! When you stop thinking about tomorrow in making decisions today, the consequences of such decisions do catch up sooner than later. The deep offshore terrain and gas from anywhere were erroneously exempted from NHT. Operators in the deepwater as well as gas producers in all terrains are not eligible for production allowance incentives. Could it be that the operators are now attempting to get the allowance incentives through the backdoor with PEO 2024? Time will tell because political expediency tends to deliver the unimaginable to stakeholders with persuasive political power and clout. Unfortunately, the Federation at large bears the axe directly or indirectly with delimited revenue to the constituent states.

Finally, the other classical instrument to enable equity, attractiveness, and competitiveness of PIA 2021 fiscals is a cluster of incentives based on efforts and output. In the past, Nigeria disavowed fiscal incentives described as up-lift as a legalized gold-plating mechanism. The narratives surrounding investment tax credits (ITC) in the PSC 1993 makes it unwelcome in the subsequent production sharing contracts. Thus, investment tax allowance (ITA) replaced ITC in PSC 2000 and PSC 2005. Of course, empirical evidence shows that the investors prefer the former to the latter and the rest is history. Do you wonder why the PIA 2021 journey took that long? The ITC effects contributed. In fact, a study of all the PIB fiscals supports this assertion. The professionals in government must come to terms with the ethics of their professions. It is an obligatory call to duty for them to offer proper advice to political appointees in every sector of the economy for posterity. The persistent lobby against NHT by offshore deep-water operators and gas producers was ill-advised few months to passing of PIA 2021.

4.0 Concluding remarks

This op-ed instructively espouses the importance of fiscal rules of general applications in petroleum resources development. Fiscal incentives to expand the development of non-associated gas have intergenerational implications, implying it should not be about investment attractiveness and competitiveness alone. Understanding the dynamism of mutuality interests among the stakeholders—investors, government, and the society- competing for the huge economic rent from petroleum resources development is critical. The desire to grow and sustain economic development using oil and gas wealth optimally must always be part of the objectives in the long run. Interestingly, Nigeria has done laudable things in the past to spur gas development within the context of investment attractiveness and competitiveness. But not much empirical evidence is there to support that such incentives for gas development have contributed meaningfully to the national economy in terms of the total value of goods produced and services provided in Nigeria. As a matter of fact, the contribution of gas to the federation account despite the proliferation of gas-targeted incentives, over the last several decades, leaves much to be desired. It is quite understandable to identify with the public affirmation and acclamation President Bola Ahmed Tinubu (PBAT) received for issuing PEO 2024. Honestly speaking, however, and even if I am the only Jeremiah in town, targeting NAG with PEO 2024 instead of amending the PIA 2021 is ill-advised and time will tell.

Omowumi Iledare, Ph.D., Snr. Fellow USAEE, Fellow NAEE, Fellow EI, Fellow NIPetE, Professor Emeritus in Petroleum Economics and Executive Director, Emmanuel Egbogah Foundation, Abuja, Nigeria.

NJ Ayuk

'Drill, baby, drill: Gas, baby, gas.'

Although Africa's natural gas production is expected to remain relatively flat over the next two years — increasing only slightly, from 268 billion cubic meters (bcm) today to 272 bcm in 2025 — there's room for optimism about the continent's potential, according to the African Energy Chamber's (AEC) "The State of African Energy 2024 Report."

For Africa to move forward and grow its natural gas output, a two-pronged approach is required: Gas producers must continue to pump from existing fields while countries with new discoveries must get these undeveloped projects to the final investment decision (FID) stage as quickly as possible.

A worrying decline in production

Here's the reason for the urgency: Many of Africa's existing gas production fields, particularly those in the north and west, are maturing or in decline, meaning they are quickly reaching the end of their productive lives. For example, Nigeria, Angola, and Equatorial Guinea currently account for 85% of the total gas output from the West Africa region, and volume is expected to remain the same until 2025. After that, levels will gradually decline: to 75% by 2030, 70% by 2035, and 60% by 2040. Although these fields are considered crucial for sustained production, the need for new projects to come online is critical to prevent a stall in output.

Fortunately, many major new gas finds have been announced in recent years, including finds in Senegal, Mauritania, Angola, Ghana, South Africa, Namibia, and the Ivory Coast. In Namibia alone, Shell's Graff discovery holds approximately 2 billion barrels of oil equivalent (BOE). These new gas discoveries will, however, remain dormant potential unless African governments and gas producers come together quickly to forge realistic actionable plans to capitalize on these vast new resources. Otherwise, new hopes will simply fade into the past as yet more symbols of lost opportunity.

Some good news

These fields along with newly discovered pre-final investment decision (FID) projects have the potential to supercharge output and allow Africa to realize its enormous natural gas potential. As the AEC report notes, any new production growth expected over the next decade will come from both pre-

FID potential — such as emerging upstream economies like Mozambique, Tanzania, Mauritania, Senegal, South Africa, and Ethiopia — as well as from mature producers like Nigeria, Libya, and Algeria.

At a very conservative forecast, production from these pre-FID projects is expected to double year-on-year from 2025 to 2029, with a continued gradual increase until around the late 2030s. Currently, just over 10% of Africa's gas production comes from these pre-FID volumes and will increase to over half of the total output. Therefore, these volumes play a critical role in the continent's natural gas export aspirations, and in becoming a true player in international markets.

There is also great excitement building around the growth of Africa's liquefied natural gas (LNG) export business. As "The State of African Energy 2024 Report" asserts:

"Africa LNG export infrastructure also is shaping in a similar way to the natural gas forecast. Between the bigger producers like Algeria, Nigeria and Egypt, Algeria and Egypt are expected to maintain their existing LNG infrastructure capacity of about 29 million tonnes per annum (MMtpa) and 12.7 MMtpa, respectively. Nigeria's plans involve increasing its LNG infrastructure capacity from the existing 22 MMtpa to 30 MMtpa via the Nigeria LNG (NLNG) Train 7 development and further marginally to just over 31 MMtpa via UTM Offshore's FLNG project."

Some further good news is Mozambique's aspirations to increase its LNG export capacity from its current 3.4 MMtpa to about 43.5 MMtpa by the end of the next decade — by far the largest increase the contentment is likely to see if all the obstacles can be overcome. Lastly, the BP-Kosmos-owned LNG project in the waters off Senegal and Mauritania is also expected to see an increase in the cumulative capacity output of both countries from the current 2.5 MMtpa to 22.5 MMpta overall capacity by the end of the next decade.

As I have written before, for these projects to get off the ground and go online, African governments must do all they can to eliminate any restrictive red tape to ensure speedy turnarounds between hydrocarbon discoveries and FID. Otherwise, their countries will miss out on the major benefits their vast natural gas resources offer.

Natural gas will benefit Africa, its people, and the planet

Despite living on a continent with an abundance of untapped natural gas resources, energy poverty is a daily reality for over 600 million Africans. By harnessing our vast hydrocarbon resources, it's possible to transform the quality of these people's lives, industrialize their economies, build gas-to-power plants, create jobs, and provide energy for clean cooking.

Fortunately, we are seeing a movement in the right direction. Around a dozen African countries are now generating their own electricity with gas they either produce themselves or import.

In addition to having the potential to resolve energy poverty in Africa, natural gas is indispensable in many industries. Natural gas, for example, plays a key role in the production of fertilizers used internationally to grow the food that sustains the entire global population.

Since the Russia-Ukraine conflict started in early 2022, both food and fertilizer prices shot up significantly as Russia started shutting down its gas supplies, thereby limiting fertilizer production and creating a low-supply, high-demand market globally, which left many farmers unable to afford the fertilizers necessary to grow crops. According to the UN, more than 60 countries are now struggling to import food, many of which are African states. Not only can Africa itself benefit by developing its natural gas resources, but it also appears to have an obligation to do so to secure domestic and global food supplies.

Natural gas can also be used as a feedstock for liquid transport fuels, paraffin, base oils, and naphtha, which can generate additional revenues to help build infrastructure, set up new businesses, and bring down unemployment levels. Exporting natural gas as feedstock also has many other great advantages.

Gas feedstock can be used in residential and commercial heating, and used as fuel in manufacturing, food processing, and chemical production. Natural gas feedstock can also be used in combined heat and power (CHP) systems, which simultaneously produce electricity and utilize the wasted heat in other industrial processes, thereby increasing overall efficiency. Natural gas also can be used to produce hydrogen, which is needed in various industries including refineries, ammonia production, and the emerging hydrogen economy. African leaders have a responsibility to explore the uses of natural gas and capitalize on export deals with major players in these industries.

Developing Africa's natural gas resources will create a plethora of new fiscal opportunities. It will also empower the continent's residents to make a good living, which in turn, will stimulate and diversify economies through sustained long-term growth.

It is very clear to me that Africa's natural gas production is on the verge of cosmic growth, but I must reiterate what I have many times before: Africa's new natural gas discoveries will remain just that — discoveries — until leaders start taking a proactive approach to quickly developing and capitalizing on them. At the moment, however, nations are still not fully reaping the enormous benefits of their dormant resources.

I urge all African leaders to do the right thing for themselves and their people. Utilize the unique and lucrative opportunities natural gas offers, monetize your gas, grow your economies, and allow your people access to energy and a decent standard of living.

Energised For a Brighter Future

Aradel Holdings Plc is the foremost fully integrated independent energy company in Nigeria. Our business operations include oil & gas production, oil refining, self-generated power, and renewables.

We pioneered the development of marginal Oil and Gas field operations in Nigeria with the start of crude oil production in 2005 from Ogbele marginal field. To date, we are the first and only non-JV partner supplier of gas to Bonny NLNG Plant. We pioneered Modular Refinery development as well as the concept of Host Community Development Trust Fund.

Our vision is to be the leading company in Africa delivering sustainable energy solutions.

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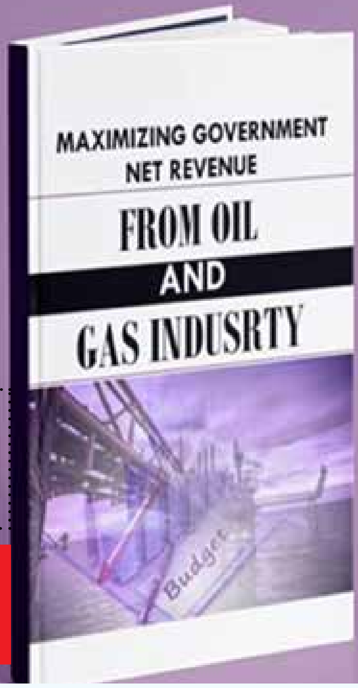
‘Maximizing Government Net Revenue FROM OIL AND GAS INDUSTRY. Cost Engineering Perspectives’



This book is one of the books authored by Engr. Johnson Awoyomi. We intend to carry some chapters of the book here for the benefit of readers.

CHAPTER 9: BEST PRACTICES IN TOTAL COST MANAGEMENT AND SUCCESSFUL DELIVERY OF MAJOR OFFSHORE PROJECTS

9.1 Summary of the chapter

Globally and even within the West African region, in particular, Cost Engineering has a critical role to play throughout the life cycle of major offshore projects from initiation and planning through execution and operation. Resources for the successful delivery of major projects especially within the offshore terrains are very limited. Therefore, cost-effective approaches to delivering and maintaining such projects are essential to creating a strong and competitive economy. This chapter describes how Cost Engineering adds value by helping to ensure cost-effective investments in offshore terrains. This chapter focuses on proven techniques of “Total Cost Management (TCM) – covering: Decision and Economic Analysis, Cost Estimating, Planning and Scheduling, Benchmarking, Contracting and Procurement, Performance Measurement, Cost Monitoring and Cost Control, Forecasting, Progress Reporting, and Finance and Audit to improving the capital program delivery and efficiency of our major offshore projects. According to the AACE International, TCM is the effective application of professional and technical expertise to plan and control resources, costs, profitability, and risk.

Deploying best practices in TCM helps in planning and deciding upon optimal major asset investments as well as helping to control projects during execution. By applying the TCM process tools, Cost Engineers add significant value to both investment decisions (increased profit or other beneficial outcomes) and project system effectiveness (safely on time and on the budget). These proven techniques of TCM are identified, analysed, and discussed in this Chapter to offer recommendations for their applicability in the management of our major offshore projects.

9.2 Introduction - What is TCM?

According to the Association for the Advancement of Cost Engineering (AACE) International, Total Cost Management (TCM) is the effective application of professional and technical expertise to plan and control resources, costs, profitability, and risk of assets, portfolio programs, and projects. For offshore projects where greater risks exist, proper deployment of TCM tools/best practices is a “must-do” to ensure profitability for the stakeholders. The main objective of TCM is to ensure - **Safer, Better, Cost Efficient and Faster Projects**

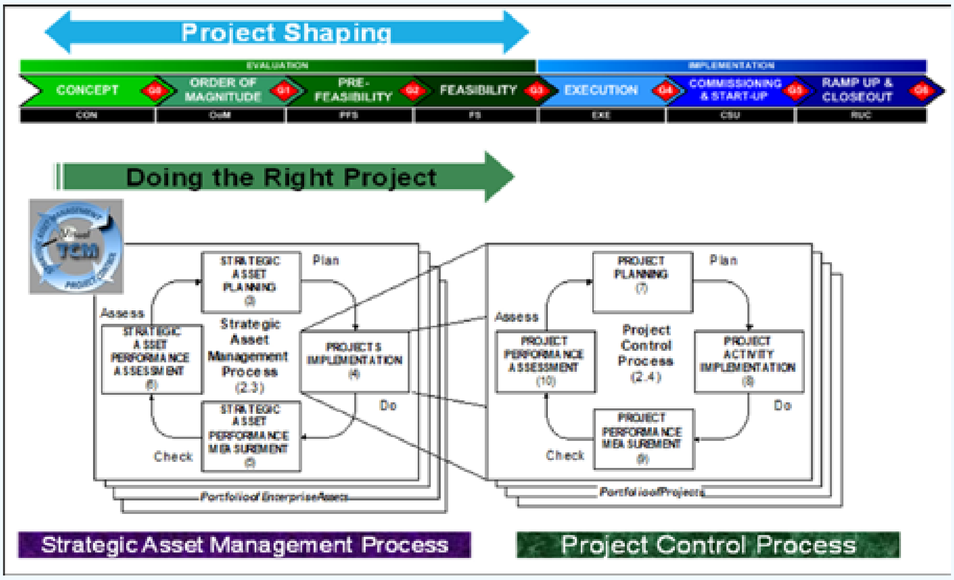


Figure 9-1: TCM’s 2 Sub-processes – Strategic Asset Management & Project Control [3]

In addition to the TCM’s 2 sub-processes (see Figure 9-1) – strategic Asset Management and Project Controls, the TCM Framework is considered as the sum of the practices and processes that an enterprise uses to manage the total life cycle cost investment in its portfolio of strategic assets and is divided into four sections, as outlined in Figure 9-2. The TCM Framework provides a standard organization structure that identifies the parts that make up the complete Total Cost Management picture. TCM is a systematic approach to managing cost throughout the ***life cycle*** of any enterprise, program, facility, project, product, or service (see Figure 9-3). The focus of TCM). TCM is the "process" through which Cost Engineering practices are applied.

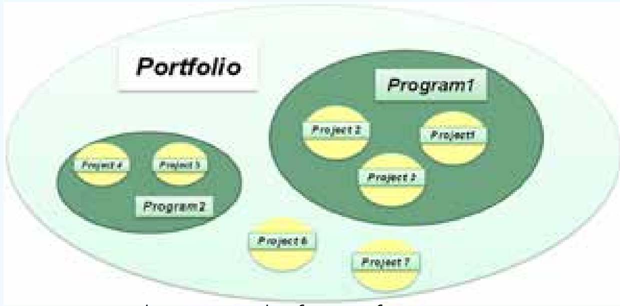


Figure 9-3: The focus of TCM

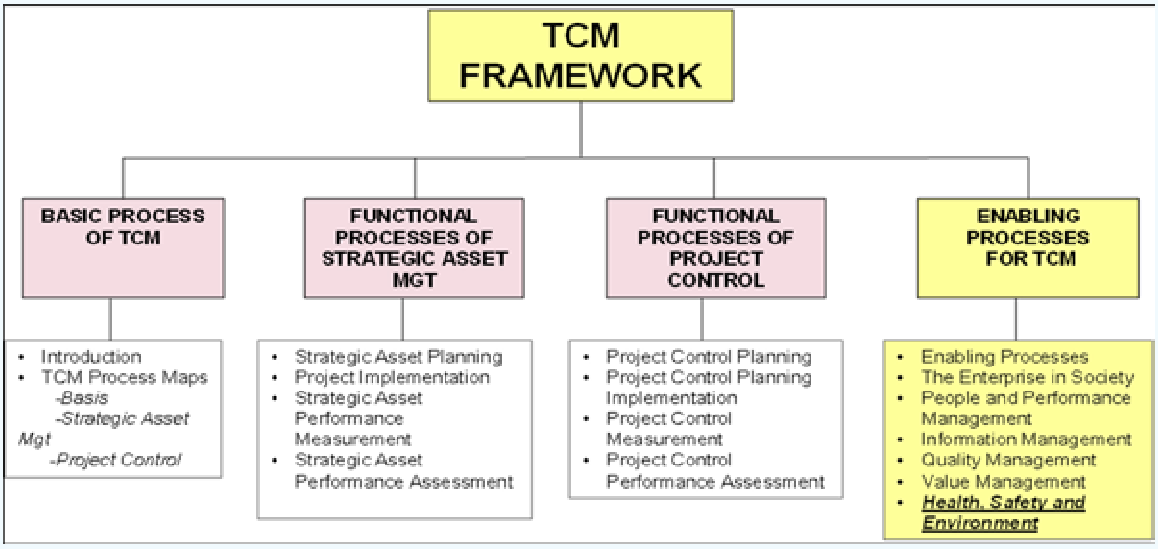


Figure 9-2: Components of the AACE International Total Cost Management Framework [3]

Deploying best practices in TCM helps in planning and deciding upon optimal major asset investments as well as helping to control projects during execution [5]. By applying the TCM process tools, Cost Engineers add significant value to both investment decisions (increased profit or other beneficial outcomes) and project system effectiveness (safely on time and on the budget). TCM not only helps us in planning, scheduling, and estimating a well-defined project before full funding, it also helps us monitor progress through the execution phase of the project. Figure 9-4 demonstrates the relationship within the Total Cost Management Framework. The diagram represents the building blocks of the supporting Plan-Do-Check-Analyze (PDCA) cycles within each process and further demonstrates the nested relationship that the Project Controls process has with the Strategic Asset Management process.

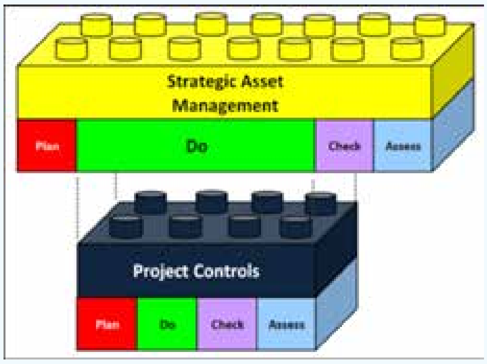


Figure 9-4: Building Blocks of TCM [2]

9.3 Successful projects

No project is considered successful until all the parameters in Figure 9-5 have been satisfactorily addressed. And in answering each question a proper application of TCM best practices is required.

Figure 9-5: Successful project

To be continued

Engr Johnson O. Awoyomi, (FNSE, FNSChE, FOSHA, CCP, CEP, PMP) is the immediate past Managing Director of National Engineering and Technical Company (NETCO), a subsidiary of the NNPC. Email: jawoyomi@Gmail.com

MARCH SHORT TAKES

Compiled By Saidu Abubakar

Nigeria's Trans-Niger Pipeline hits Milestone: Crude transport exceeds 200,000 barrels/day

The Trans-Niger Pipeline (TNP) has achieved a new milestone with crude transport surpassing 200,000 barrels per day (bpd) in the last six months.

NNPC laments, seeks EFCC's Support

The Nigerian National Petroleum Company (NNPC) Limited has lamented that no one is ready to invest in the oil sector due to the menace of oil theft while seeking the help of the Economic and Financial Crimes Commission (EFCC) in tackling the menace.

NNPC has deactivated 6,409 illegal refineries in Niger Delta — Kyari

The Nigerian National Petroleum Company Limited (NNPC) has successfully deactivated 6,409 illegal refineries in the Niger Delta region to combat oil theft.

NUPRC speaks on audit report 'indicting' it for non-remittance into Federation Account

The Nigerian Upstream and Regulatory Commission has reacted to a report quoting an audit report that indicted it and others for non-remittance into the Federation Account.

NCDMB lauds Tinubu on Oil Sector's Executive Orders

The Executive Secretary of the Nigerian Content Development and Monitoring Board (NCDMB), Engr. Felix Omatsola Ogbe on Monday applauded President Bola Ahmed Tinubu, GCFR, for announcing three Presidential Executive Orders directed at incentivizing the Nigerian oil and gas industry, encouraging new investments in the sector, reducing contracting costs and timelines, and promoting cost efficiency in local content requirements.

President Bola Tinubu

SON approves 80 Standards for CNG Adoption in Nigeria

The Standards Organisation of Nigeria (SON) has approved 80 standards for Compressed Natural Gas use in the country.

UTM seeks NCDMB's Equity Investment in Floating LNG Plant

Promoters of Nigeria's first Floating Liquefied Natural Gas (FLNG) facility, UTM Offshore Limited, have urged the Nigerian Content Development and Monitoring Board (NCDMB) to invest equity in the project and to accelerate key approvals that would fast-track the project's development.

NUPRC and Polish firm partner for sustainable energy solutions on global scale

The Nigerian Upstream Petroleum Regulatory Commission (NUPRC) and New Energy Transfer Group (NET) Poland have forged a promising avenue for collaboration aimed at advancing research, promoting sustainable energy solutions, and addressing environmental challenges on a global scale.

IEA set for 17th Energy Efficiency Policy Training Week in Kenya

The International Energy Agency (IEA) has announced its upcoming 17th Energy Efficiency Policy Training Week, which aims to build capacity among policy makers from emerging economies.

Tinubu raises NNPC Contract Approval Threshold to $10m

President Bola Tinubu has raised the contract approval threshold for the Nigerian National Petroleum Company (NNPC) Limited to a minimum of $10 million or its equivalent in Naira.

Kyari calls for Differentiated Energy Transition for Africa

...Says FID on Nigeria Morocco Gas Pipeline to be Taken in December

As global calls for transition to cleaner energy fuels continue to grow, the Group Chief Executive Officer of Nigerian National Petroleum Company Limited (NNPC) Ltd. Mr. Mele Kyari has advocated for a differentiated approach to attaining energy transition for the African continent.

CNG: Federal Govt targets 70% fuel cost reduction

...Begins training, conversion of Army fleet vehicles

The federal government of Nigeria has embarked on an ambitious initiative aimed at slashing fuel costs by up to 70 per cent through the adoption of Compressed Natural Gas (CNG) as an alternative to traditional petroleum-based fuels.

Petrol pump prices skyrocket in Nigeria: Zamfara leads with N750.43/litre average

In a startling revelation, Nigeria witnessed a significant escalation in the average retail price of Premium Motor Spirit (Petrol) in February 2024.

Tinubu's Oil and Gas Policies set to create 2.3m jobs, boost GDP by $17bn – FG

The Federal Government of Nigeria has projected the creation of 2.3 million jobs and a $17 billion boost to the nation's GDP once President Bola Tinubu's new oil and gas policies are implemented.

Hardship: FG moves to establish 1000 CNG centers to ease transportation

...as CAAF24 urges technology driven solution against climate change

As part of ongoing effort to cushion the effect of fuel subsidy removal, the federal government has mapped out strategies aimed at establishing 1000 compressed natural gas centres (CNG) before the end of the year across the country.

Customs thwarts Cameroon-bound fuel smugglers in Adamawa, Taraba axis

The Nigeria Customs Service (NCS) said its operatives in Adamawa and Taraba recently thwarted smugglers from illegally transporting Premium Motor Spirit (PMS) known as petrol to Cameroon.

NLNG seeks IT Partnership, extends deadline for Tendering Exercise

The Nigeria Liquefied Natural Gas Limited (NLNG), a prominent organ in Nigeria's energy sector, has extended its call for expressions of interest in its IT Integrated Support and Services tendering exercise.

CNG Buses

Nigeria facing daunting challenge, as latest NBS Data unveils stark rise in prices of food items

The surge in costs of staple foodstuffs such as rice, beef, beans, garri, and yam is putting a significant strain on consumers' wallets, prompting concerns about food affordability and accessibility, as latest data by the Nigerian Bureau of Statistics (NBS) has shown.

Nigerian Oil, Gas sector to get $5bn this Year - Minister

...Sector to surpass Production target barring any unforeseen circumstances

Nigerian Oil and gas sector shall witness investments to the tune of $5 billion, the Minister of State Petroleum Resources (Oil) Senator Heineken Lokpobiri, has disclosed.

NUPRC meets with Crude Producers and Refinery Owners to ensure full compliance with Domestic Supply Policy

The Nigerian Upstream Petroleum Regulatory Commission (NUPRC) held a meeting with crude oil producers and refinery owners in Nigeria to ensure full adherence to the Domestic Crude Oil Supply Obligation (DCSO) as outlined in the Petroleum Industry Act (PIA).

Oil prices ease on Russian Refineries attack outcomes

Oil prices settled lower as the market weighed the loss of Russian refinery capacity after recent Ukrainian attacks, with Brent crude losing 50 cents to trade at $86.25 a barrel, while the US West Texas Intermediate (WTI) crude fell by 33 cents to close at $81.62 per barrel

NNPC records 136 incidents of crude oil theft in one week

The Nigerian National Petroleum Company Ltd (NNPC) has recorded about 136 incidents of crude oil theft between the 16th and 22nd of March 2024.

Solution to Nigeria's problems lies in petroleum sector – Lokpobiri

The Minister of Petroleum Resources (Oil), Heineken Lokpobiri has said the solution to Nigeria's numerous challenges was in the petroleum sector which he noted, handles the highest percentage of forex transactions.

NNPC denies reducing fuel and diesel prices

The Nigerian National Petroleum Company (NNPC) Limited has denied claims that it has reduced the pump prices of petrol and diesel.

IWAJU: Disney's Entry into Nigerian Cinema

By Patience Chat Moses

Excitement crackles in the air as a ground-breaking announcement echoed through the streets. Disney, the entertainment giant known for its iconic characters and magical storytelling, had forged an unprecedented alliance with Nigeria's film industry. Together, they have created something truly extraordinary: the first-ever Nigerian animated feature film, "IWAJU."

Iwájú is an animated feature miniseries produced by Walt Disney Animation Studios and the Pan-African British-based entertainment company Kugali Media for the streaming service Disney. It was written by Olufikayo Adeola and Halima Hudson and directed by Adeola.

The title of the series, iwájú, roughly translates to "the future" in the Yoruba language.

“Iwájú” is an original animated series set in a futuristic Lagos, Nigeria. The exciting coming-of-age story follows Tola, a young girl from a wealthy island, and her best friend, Kole, a self-taught tech expert, as they discover the secrets and dangers hidden in their different worlds.

The series also explores "deep themes of class, innocence, and challenging the status quo".

Kugali filmmakers—including Director Olufikayo Ziki Adeola, Production Designer, Hamid Ibrahim and Cultural Consultant Toluwalakin Olowofoyeku—take viewers on a unique journey into the world of “Iwájú,” bursting with unique visual elements and technological advancements inspired by the spirit of Lagos.

The series is produced by Disney Animation’s Christina Chen, with a screenplay by Adeola and Halima Hudson. “Iwájú” features the voices of Simisola Gbadamosi, Dayo Okeniyi, Femi Branch, Siji Soetan and Weruche Opia.

The news about the new animation sent shockwaves across the country, sparking fervent discussions in every household and stirring the imagination of aspiring filmmakers and animators alike. For decades, Nigeria had been celebrated for its vibrant Nollywood film industry, but the prospect of collaborating with Disney heralded a new chapter in the nation's cinematic journey.

From the bustling streets of Lagos to the lush savannahs of the countryside, “Iwájú " transports audiences on a magical journey unlike any they had experienced before.

The story draws inspiration from the city of Lagos, Nigeria, due to Lagos being "the culture capital of Nigeria", and due to both its mainland and island areas having a unique, distinct feel that the creative team felt provided an interesting base for the story.

"Iwájú" is more than just a film; it is a celebration of Nigeria's rich cultural heritage and a testament to the power of collaboration across continents.

Iwájú premiered on Disney+ on February 28, 2024, with the release of six episodes.

The series includes an original score composed by Ré Olunuga.

Originally planning a series of sorts, Walt Disney Animation Studios and Kugali Media were developing the long-form series for Disney+ by December 2020. Cinesite was announced to co-produce the series in September 2021, with pre-production already underway at Cinesite Montreal.

As the project gained momentum, a team of talented Nigerian artists, writers, and animators all assembled, each eager to lend their unique perspective and creative flair to the endeavour. Under the guidance of Disney's seasoned veterans, they embarked on a journey of collaboration and innovation, blending traditional Nigerian storytelling with cutting-edge animation techniques.

But the road to completion was not without its challenges. As deadlines loomed and creative differences surfaced, the team faced moments of doubt and uncertainty. Yet, fuelled by their shared passion and determination, they persevered, overcoming obstacles and pushing the boundaries of what was thought possible.

With Disney's entry into Nigerian cinema, a new era of storytelling had begun; one that celebrated the past, embraced the present, and inspired generations yet to come. It carries a shared sense of pride and possibility for the future of Nigerian cinema.

The Art of Patience: A Guide for Teenagers

By Abdulhafiz Mohammed

Introduction

In today's fast-paced world, patience has become a rare virtue. As teenagers, we often find ourselves in situations where we want things to happen instantly, and when they don't, we get frustrated or upset. However, patience is a valuable skill that can significantly improve your life and relationships. In this article, we will discuss the importance of patience, how to cultivate it, and its benefits for teenagers.

1. Understanding the importance of patience

Patience is the ability to tolerate waiting or delays without getting annoyed or angry. It helps us to handle difficult situations calmly and respond thoughtfully rather than reacting impulsively. In various aspects of life, such as academics, relationships and career, patience plays a crucial role. It allows us to make better decisions, maintain a positive attitude, and build strong connections with others.

2. Cultivating patience in daily life

a. Mindfulness: Practice being present in the moment and focus on your thoughts and feelings. This helps in understanding your reactions to situations and enables you to respond patiently.

b. Deep Breathing: When you feel impatient, take a few deep breaths. This simple technique can help calm your mind and body, allowing you to think clearly and respond patiently.

c. Time Management: Plan your tasks and activities efficiently to avoid last-minute stress and rushing. This will help you develop patience as you learn to accept delays and adapt to changes.

d. Empathy: Put yourself in other people's shoes and try to understand their perspectives. This can help you develop patience and compassion towards others, making it easier to deal with their shortcomings.

e. Set Realistic Goals: Avoid setting unrealistic expectations for yourself or others. By setting achievable goals, you can learn to accept the pace of progress and develop patience in the process.

3. Benefits of patience for teenagers

a. Improved Relationships: Patience helps in building strong connections with friends, family, and romantic partners. It allows you to listen attentively, communicate effectively, and resolve conflicts peacefully.

b. Enhanced Academic Performance: Patience enables you to focus on your studies, understand complex concepts, and complete assignments without getting overwhelmed. This leads to better academic performance and reduced stress.

c. Career Success: In the workplace, patience helps you to work collaboratively with colleagues, handle challenging situations and make well-informed decisions. This can significantly contribute to your professional growth and success.

d. Emotional Well-being: Patience helps you to manage stress, anxiety, and frustration more effectively. It promotes emotional stability and overall mental well-being.

Conclusion

Patience is a vital life skill that can greatly enhance your personal and professional life. As a teenager, cultivating patience will not only help you navigate the challenges of adolescence but also prepare you for a successful future. By incorporating mindfulness, deep breathing, time management, empathy, and setting realistic goals into your daily life, you can develop the art of patience and reap its numerous benefits. Remember, patience is not about waiting, but the ability to keep a good attitude while waiting.

Abdulhafiz Mohammed is SS3 student of Al-Itqan Academy, Kaduna

Gene Editing and Ethical Questions for Biomedicine

By Adaobi Rhema Oguejiofor

It is no longer news that technology is rapidly growing and spreading into every sector and endeavour. The medical field is one of those areas where technology is soaring and thriving, with new developments that make saving lives easier springing up every now and then. The desire to solve problems like curing and preventing chronic diseases have led to the deep research and innovation of the Clustered Regularly Interspaced Palindromic Repeats (CRISPR) and CRISPR-associated protein 9 (Cas9) Gene Editing Technology, which gives scientists the ability to change an organism's gene.

The United States of America's National Library of Medicine (NLM) has described CRISPR or Cas9 as a gene-editing technology that is bringing about a major uproar in biomedical research. This technology creates the possibility of correcting errors in the genome, which is the complete genetic information of either Deoxyribonucleic Acids (DNA) or, in some viruses, Ribonucleic Acid (RNA) of an organism, by removing, adding or altering sections of the DNA/RNA sequence. It turns on or off genes in cells and organisms quickly, cheaply and with relative ease. It is currently the simplest, most versatile and precise method of genetic manipulation at the forefront of research in the world of science.

This technology has the potential to treat genetic disorders caused by single gene mutations and also possesses a number of laboratory applications including rapid generation of cellular and animal models, functional genomic screens and live imaging of the cellular genome.

Research has ascertained that CRISPR/Cas9 can be used to repair defective DNA in mice, thereby curing them of genetic disorders and scientists are still working to determine whether this technology is safe and effective for use in humans. Other potential clinical applications of the innovation include gene therapy, the treatment and prevention of more complex diseases like the Human Immunodeficiency Virus (HIV), cancer, heart disease, and mental illness, among others.

CRISPR-Cas9 was adapted from a

naturally occurring genome editing system that bacteria use as an immune defence. These bacteria, when infected with viruses, capture small pieces of the viruses' DNA and insert them into their own DNA in a particular pattern in order to create segments referred to as CRISPR arrays. The CRISPR arrays allow the bacteria to "remember" the viruses or closely related ones and if the viruses resurface again, the bacteria produce RNA segments from the CRISPR arrays that recognize and attach to specific regions of the viruses' DNA. The bacteria can then use Cas9 or a similar enzyme to cut the DNA apart, which therefore disables the virus.

This immune defence system was adapted by researchers to edit DNA. They create a small piece of RNA with a short "guide" sequence that attaches and binds to a specific target sequence in a cell's DNA like the RNA segments bacteria produce from the CRISPR array. This guide RNA also attaches to the Cas9 enzyme and when introduced into cells, it recognizes the intended DNA sequence, and the Cas9 enzyme cuts the DNA at the targeted location, mirroring the process in bacteria. Once the DNA is cut, researchers use the cell's DNA repair machinery to add or delete pieces of genetic material, or to make changes to the DNA by replacing an existing segment with a customized DNA sequence.

Quanta Magazine, a scientific online publication, reported that scientists had originally discovered the CRISPR in bacteria in 1987, but at the time, they did not understand the biological significance of the DNA sequences, and it was not yet named CRISPRs. At Osaka University in Japan, a molecular biologist, Yoshizumi Ishino and his colleagues first found out the characteristic nucleotide repeats and spacers (the code bacteria use to remember viruses) in the gut bacteria (microbe Escherichia coli), and as the technology for genetic analysis improved in the 1990s, other researchers found CRISPRs in many other microbes.

A Spanish scientist at the University of Alicante in Spain, Francisco Mojica in the '90s, extensively researched that CRISPRs put together a series of repetitive patterns in the DNA of bacteria and archaea. He was the first to describe the distinct characteristics of CRISPRs and he found the sequences in 20 different microbes. At first, he called the sequence "Short Regularly Spaced Repeats" (SRSRs), but he later suggested that they be called CRISPRs instead. The term CRISPR first appeared in a 2002 report, which was published in the journal Molecular Microbiology and authored by

Ruud Jansen of Utrecht University.

But in 2012, a professor of biochemistry, biophysics and structural biology at the University of California, Berkeley, Jennifer Doudna and the director of the Max Planck Unit for the Science of Pathogens, Emmanuelle Charpentier took the discovery of this technology a step further and proposed that CRISPR-Cas9 could be used to cut any desired DNA sequence by just providing it with the right template. The two scientists are credited with adapting the bacterial CRISPR/Cas system into a handy gene-editing tool.

In 2013, researchers in the labs of a biochemist Fang Zhang and that of a geneticist, George Church published the first reports describing the use of CRISPR-Cas9 to edit human cells in an experimental setting. The studies conducted in lab dish and animal models of human disease have demonstrated that the technology can effectively correct genetic defects.

A noteworthy factor is that CRISPR is not the first system that enables the editing of DNA in all sorts of organisms. There are other gene-editing technologies, which were used extensively before like TALEN and zinc-finger nucleases (ZFNs). Some experts point out that these tools, have been in use for a sufficient period to become quite refined and they are more accurate than CRISPR-Cas9. However, CRISPR brings an important advantage over all these other techniques as it is much easier and faster to use. Most previous technologies required creating a gene-editing protein from scratch for each specific DNA modification but with CRISPR, the same Cas9 molecule can be directed to any sequence just by providing it with a guide RNA molecule, which is much easier to synthesize.

Life Science, a scientific website, noted that CRISPR technology has been applied in the food and agricultural industries to engineer probiotic cultures and to vaccinate industrial cultures against viruses. It is also being used in crops to improve yield, drought tolerance and nutritional properties.

Another potential application of the technology is to create gene drives, which is a genetic engineering technique that increases the chances of a particular trait passing on from parent to offspring. This kind of genetic engineering derives from a natural phenomenon, where specific versions of genes are more likely to be inherited and according to the Wyss Institute, eventually, over the course of generations, the trait spreads through entire populations.

Concerning the technology's successes, a BBC News report disclosed that during the COVID-19 pandemic, the CRISPR-Cas9 system was used to develop various diagnostic tests for the viral infection. Similarly, on August 2, 2017, scientists revealed in Nature, a scientific journal, that they had removed a heart disease defect in an embryo successfully using CRISPR. Also, on January 2nd, 2018, researchers announced that they may be able to stop fungi and other problems that threaten chocolate production using CRISPR to make the plants more resistant to disease. According to a research published by the journal BioNews, on April 16, 2018, researchers upgraded CRISPR to edit thousands of genes at once.

However, despite its many successes and uses, the tool is not without its defects. George Church stated that to him, the biggest limitation of CRISPR is that it is not a hundred per cent efficient, which implies that, in a given experiment, the technology may successfully edit only a percentage of the targeted DNA. The technology can also create "off-target effects" when DNA is cut at sites other than the intended target. This can lead to the introduction of unintended mutations. Church noted that even when the system cuts on target, there is a chance of not getting a precise edit. He called this "genome vandalism."

The many prospective applications of CRISPR technology have raised questions about the ethical merits and consequences of tampering with genes. In general, making genetic modifications to human embryos and reproductive cells, such as sperm and eggs is known as germline editing and since changes to these cells can be passed on to subsequent generations, using CRISPR technology to make germline edits has raised a number of ethical concerns.

Inconsistent effectiveness, off-target effects, and imprecise edits all pose safety risks as there is much that is still unknown to the scientific community. David Baltimore and a group of scientists, ethicists and legal experts in an article published in 2015, noted that germline editing raises the possibility of unintended consequences for future generations because there are limits to the knowledge of human genetics, gene-environment interactions, and the pathways of disease, including the interplay between one disease and other conditions or diseases in the same patient.

Some other ethical questions that have been raised include, should changes that could fundamentally affect future generations be made without having their consent? What if the use of germline editing changes from being a therapeutic tool to an enhancement tool for various human characteristics?

To address these concerns, the National Academies of Sciences, Engineering and Medicine in the United States put together a comprehensive report with guidelines and recommendations for genome editing. Although the Academies urged for caution in pursuing germline editing, they emphasized that caution does not mean "prohibition." They recommended that germline editing should be done only on genes that lead to serious diseases and only when there are no other reasonable treatment alternatives.

They also stressed the need to collect data on the health risks and benefits, as well as maintain continuous oversight during clinical trials. The Academies recommended that, after a trial is concluded, trial organizers should follow up with the participants' families for multiple generations in order to see what kind of changes persist in the genome over time.

The future of CRISPR gene editing technology is promising, even though it comes with challenges that need to be addressed. For the future, CRISPR can bring about increased efficiency and specificity. Researchers are constantly improving CRISPR to make it more precise and efficient. New variants of the Cas9 enzymes and guide RNA designs are being developed to minimize unintended edits or off-target effects.

Also, because delivering CRISPR machinery safely and effectively inside cells remains a hurdle, new delivery methods using nanoparticles or viruses are being explored to target specific tissues and organs. Beyond targeting only rare genetic disorders, CRISPR holds promise for more common diseases like heart disease, cancer, and Alzheimer's. Therefore, research is ongoing to understand the complex genetics of these diseases and develop CRISPR-based therapies.

For the future, ethical considerations remain paramount because germline editing, where changes are made to sperm, egg, or embryo cells, continues to raise ethical concerns. However, International collaborations are underway to develop guidelines and regulations for safe and responsible use of CRISPR.

Overall, CRISPR gene editing has huge potential for revolutionizing medicine, agriculture, and various other fields. However, addressing the technical challenges, navigating ethical considerations, and fostering open communication with the public concerning the development and use of this technology is very important for its successful and responsible advancement.

Tinubu Appoints Dr. Dayo Mobereola NIMASA DG

By Patience Chat Moses

In a significant development for Nigeria's maritime sector, President Bola Ahmed Tinubu has ushered in a new era of leadership at the Nigerian Maritime Administration and Safety Agency (NIMASA). The announcement comes as the tenure of Dr. Bashir Yusuf Jamoh, the former Director General of NIMASA, draws to a close after four years of service.

President Tinubu approved the appointment of Dr. Dayo Mobereola as the new Director-General of NIMASA for a renewable term of four years. His appointment was announced in a statement by the President's Special Adviser on Media and Publicity, Ajuri Ngelale.

Prior to the appointment of the new D.G, Jamoh had handed over the affairs of the agency to the Executive Director, Finance, and Administration, Chudi Offodile, according to a statement issued by the head of Public Relations, NIMASA, Edward Osagie.

Jamoh handed over to Offodile in compliance with the Federal Government's establishment circular tagged 'End of Tenure Processes for Heads of Extra-Ministerial Departments, Director-Generals, Chief Executive Officers of Parastatals, Agencies, Commissions, and Government-Owned Companies and Succession Guideline' dated December 4, 2017.

The outgoing D.G expressed gratitude to the Federal Government for allowing him serve in the capacity as Director General and urged the next leadership of the agency to consolidate the gains of the past four years.

Under Jamoh Bashir's stewardship, NIMASA witnessed numerous achievements, including the spearheading of the ground-breaking Deep Blue project, aimed at enhancing national security and maritime safety. His leadership also saw the establishment of vital frameworks for combating maritime insecurity in the Gulf of Guinea and promoting the Blue Economy Agenda.

Dr. Dayo Mobereola

Dr. Dayo Mobereola, a distinguished figure with a wealth of experience in transportation and maritime affairs, was appointed as the new Director General of NIMASA. His appointment marks a pivotal moment for the agency as he brings a wealth of expertise to his new role, with years of professional experience in the transportation and maritime sectors. His tenure as Managing Director of the Lagos Metropolitan Area Transport Authority and Commissioner for Transportation in Lagos State underscores his credentials for leading NIMASA into a new era of excellence.

President Tinubu expressed confidence in Dr. Dayo Mobereola's ability to uphold NIMASA's mandate of ensuring world-leading standards of maritime safety administration, marine pollution prevention, and search and rescue operations. He emphasized the importance of improving cabotage enforcement, shipping development, and ship registration in alignment with his government's Renewed Hope Agenda for the maritime sector.

As Dr. Dayo Mobereola assumes the directorship of NIMASA, all eyes are on him to steer the agency towards greater heights, ensuring the continued advancement of Nigeria's maritime industry under his capable leadership.

Clean Energy: CIG begins Mass Sale of Electric Vehicles

By Adaobi Rhema Oguejiofor

As the world is pushing towards net zero, clean energy sources are rapidly revolutionizing every sector including the motoring sector, propelling a shift away from traditional gasoline-powered vehicles, thereby reducing the environmental impact of greenhouse gas emissions and air pollution from the motoring sector.

In line with this, Choice International Group (CIG) Motors Company Limited, one of the leading automobile marketing and assembling companies in Nigeria, has started the distribution and sale of Electric Vehicles (EVs) in commercial quantity in Nigeria. By this development, CIG Motors has become the first automobile company to start the sales and marketing of Electric Vehicles, which are major clean energy transportation systems, in commercial quantity in the country.

The General Manager of Marketing for CIG Motors, Mr. Jubril Arogundade, disclosed this, while noting that the company has already delivered about 30 units of the electric vehicles to customers in Lagos, with an additional order to deliver another 300 units to a customer in Abuja for Electronic hailing (e-hailing) business.

Arogundade said that the development is the company's way of contributing its quota to safeguarding the Nigerian environment as the cars do not contaminate the environment with toxicity like combustion engines. He noted further that the cars come with charging kits that enable customers to charge their vehicles from the comfort of their homes. The cars can be charged to full capacity within 35 minutes and they can deliver amazing power, as well as comfort with low running cost.

According to him, for a start, only three models of the vehicle are available in Nigeria and they include Bingo, Macaron and Yep. He said that the Wuling Macaron is a compact car, which is fashionable with a luxurious interior, adding that despite its com-

pact nature, the Macaron is powerful and has a good turning radius. It also comes with airbags and strong steel body frame, as well as assures of low travel cost.

The standard features in the Macaron are outstanding. It has a remote key and central control lock, electric power steering, economic/spot mode, air-conditioning system and reverse camera. The safety features include an Anti-lock Braking System plus Electronic Brake force Distribution (ABS+EBD) automatic unlocking upon collusion, and automatic locking while in motion.

The Wuling Bingo is also a compact vehicle, which is quite pretty and comes in many beautiful colours with features like the Macaron and more. It comes with four doors, which makes it easy for passengers to go in and out of it.

The Yep vehicle on the other hand is a small SUV that is also beautiful and unique. It has all the features of both the Bingo and Macaron plus Sport Utility powers. It comes in three doors with its square box appearance. It also has a raised platform, which makes it a perfect car for Nigerian roads. Also like the Bingo and Macaron the Yep vehicle is equipped with front Mcpherson independent suspension, a rear three-link integrated axle suspension. The driving type is rear engine, rear drive, and the steering is powered by electricity, among other features.

Comfort and convenience are never lacking in the Yep as it is a compact SUV with advanced matte interior trim, ultra large narrow side 10.25-inch dual screen multi-function steering wheel, height adjustable steering wheel, steering wheel leather coating, and leather seats, among others.

The Wuling vehicles distributed by CIG Motors have, therefore, gone several steps ahead of the Hyundai Kona/SUV and Jet Mover EVs that were produced in small quantities and yet to go into full commercial sales in Nigeria.

CIG Motors is the official representative of Guangzhou Automobile Company (GAC) Limited Motors in Nigeria. GAC Motors has become a household name with models like GAC3, GAC4, GAC5, and GAC8, which are available in Saloons and Sport Utility Vehicles (SUVs). However, CIG is testing the Electric market with the Wuling Brands with models like Macaron, Bingo and Yep.

Electric Vehicles have immense benefits that make them very desirable and efficient. Among such benefits is that Electric Vehicles bring about reduced emissions as they produce zero tailpipe emissions and offer a quiet, smooth driving experience, thereby significantly contributing to cleaner air and a reduced carbon footprint.

Electric Vehicles are also energy efficient when compared to vehicles that use gasoline engines and this leads to lower energy consumption and potentially lower running costs. They also have a higher level of performance by offering impressive acceleration and circulatory force as a result of their inherent characteristics.

With this new sale and distribution of Electric Vehicles in commercial quantity, Nigeria is well on its way to joining the rest of the world in achieving the goal of attaining Net-Zero by 2060.

Rising Costs of Materials: Housing Minister Vows to Punish Corrupt Developers, Operators

By Adaobi Rhema Oguejiofor

Over the years, situations involving corrupt practices by housing developers are no longer uncommon, leaving those in need of houses vulnerable and losing their trust in the Nigerian housing sector. This is why the Minister of Housing and Urban Development, Mr. Ahmed Dangiwa, has warned that Real Estate Developers, who engage in cutting corners would be penalized.

During the flag-off ceremony of Project Broadfield by the Dynamic Mayor Edge Company and the opening of the 102 units of luxury apartments, as well as high-end offices in Abuja, the minister stated this in response to citizens' grievances about the increasing incidents of real estate fraud and customers expressing dissatisfaction as a result of the perceived lack of value for their money.

Dangiwa cautioned developers against deceiving subscribers by delivering substandard projects after collecting payments to provide quality standards in housing projects. He assured that the government is committed to protecting citizens' rights, as well as preventing and tackling real estate fraud, noting that such actions would no longer be tolerated, as the government is collaborating with the Economic and Financial Crimes Commission (EFCC) to ensure accountability and protection of citizens' rights.

In his words," I want to warn all developers that the days of cutting corners in these housing types are over and those who collect money from beneficiaries off-plan and at the end of the day dupe them, should stop doing that because the days for that are over.

"We are collaborating effectively with the EFCC, which is the agency of the government saddled with the responsibility of ensuring the rights of the citizens are enforced, in order to remedy the sector", the minister disclosed.

The Housing Minister expressed that President Bola Ahmed Tinubu is committed to citizens' welfare, and has demonstrated his said commitment through initiatives like the Dynamic Mayor Edge Group's Estate Project, which aligns with the government's vision for sustainable urban development.

Mr. Ahmed Dangiwa

On his part, the Chief Executive Officer (CEO) of the Dynamic Mayor Edge Group, Olumayowa Olurishe, while speaking at the opening, unveiled plans to construct and deliver a minimum of 700 homes by 2027, pledging to make further investments in Nigeria's real estate sector.

He said the company has a vision to be among the top 10 luxury home providers in Nigeria by 2032 because it believes that every Nigerian deserves luxury, irrespective of their budget size. While adding that by 2027, when the Company will be celebrating its 10th anniversary, it plans to have built and delivered at least, 700 homes; he noted that "In the past 6 years, we have completed over 150 affordable luxury homes, and our Apo-Dutse project, which is planned to be commissioned in October, upon completion, will make it over 300 units of affordable luxury homes that have been delivered within seven years of establishment as a company."

Meanwhile, despite this significant addition to Nigeria's housing sector and the company's promise of more, some housing developers have called on the government to intervene in the rapidly increasing costs of building materials in the country in order to allow more Nigerians to become homeowners.

The Managing Director and CEO of Richland Property and Homes Limited, Dr. Ifeanyi Nwachukwu, made the call during a media briefing in Lagos, where he noted that waivers on certain imported items and the removal of unnecessary taxes on building materials by the government would help in addressing the issue of the rising cost of building materials currently experienced in the nation.

Nwachukwu expressed that the real estate sector is not protected from the challenges thrown up by the rising cost of building materials and services as a result of the current economic situation in the country.

According to him, the developers hope that the government will come up with interventions that would support their efforts to continue helping more Nigerians become satisfied homeowners in line with their vision and mission.

The CEO of Darryl Homes Nigeria Limited, Yusuf Odumade, also urged the Federal Government to intervene in the rising costs of building materials to encourage the private sector to bridge the country's housing deficits. He said that many developers have discontinued their projects in the hopes that there will be a rapid decrease in material prices, as prices have surged, with some materials seeing nearly a 100 per cent increase. For example, cement prices have skyrocketed, reaching as high as N13,000 per bag or more in some areas.

In his words, "market dynamics have become unpredictable, with fluctuating prices throughout the day and even sometimes, from one day to the next. Urgent government intervention is required to address this crisis and stabilize the economy, realizing the aspirations of a better Nigeria for all."

However, Nwachukwu emphasized the importance of prospective investors engaging in land banking in order to support future homeowners in various estates nationwide, thereby enhancing the return on their investments.

Tackling “neglected” Buruli Ulcer with Science and Awareness

By Adaobi Rhema Oguejiofor

Facing a serious skin condition caused by bacteria and the support of the environment one lives in can leave a person in a disadvantaged position as in the case of patients living with Buruli ulcer, which mostly affects populations in remote areas with limited access to the formal health sector.

Buruli ulcer, also referred to as Bairnsdale is a chronic debilitating skin disease which is caused by a bacterium called Mycobacterium ulcerans, which produces a toxin that causes skin damage and sometimes affects the bones as well. According to the World Health Organization (WHO), this ulcer belongs to the same family of the bacterium that causes tuberculosis and leprosy. It is characterised by large ulcers, which can lead to long-term and permanent disability without early treatment.

The disease occurs predominantly in West Africa, Central Africa, South America and Western Pacific regions and has been classified as a neglected tropical disease by WHO since most cases occur in tropical, subtropical and temperate climates without much coverage or awareness. It affects communities living along slow-flowing water bodies such as ponds, swamps and lakes. It is, however, still unclear how people get Buruli ulcers from the environment.

WHO highlighted that the mode of transmission of Buruli Ulcer is not known but is being investigated and there is no prevention for the disease as of yet, which is why early diagnosis, detection and treatment is the main strategy to minimize morbidity, costs, as well as prevent long-term disability.

An epidemiologist at Epicentre, Prof. Yap Boum,who is leading a study aimed at simplifying the diagnosis of Buruli ulcer, noted that, it is believed that many cases of Buruli ulcer go unreported as a result of limited knowledge of the disease, limited access to a reliable diagnostic that is available only in few laboratories, its focal distribution and the fact that it affects mainly poor, and rural communities. Although all ages and sexes can be affected by the disease, young children appear to be most at-risk, with most patients being under 15 years of age. A study revealed that there is a higher prevalence of about 66.7 per cent in females compared to males.

For the symptoms, Buruli ulcer at an early stage starts as a painless swelling, lump or nodule. The local immunosuppressive properties of the mycolactone toxin enable the disease to progress with no pain or fever. If it progresses without treatment or sometimes even during antibiotics treatment, the nodule or plaque will ulcerate within four weeks with the classical, undermined borders where the edges appear eaten away and often with a yellow or white base. Occasionally, at the last stage, bone involvement, extensive tissue destruction, severe scarring, and permanent disability or deformity in the limbs can occur.

Although the exact cause or mode of transmission of Buruli ulcer remains unknown, potential scientific theories outline possible causes to include contact with contaminated water sources, such as stagnant swamps, and slow-moving rivers, bites from insects like mosquitoes and aquatic bugs that carry the bacteria, and based on ongoing research, contact with infected animals or environmental sources.

Early diagnosis is very crucial for effective treatment and minimizing scarring. To treat the disease, a combination therapy is usually required like the use of antibiotics, such as rifampicin, streptomycin, and clarithromycin, to kill the bacteria. This prescription dosage can be lengthy lasting for up to 8 weeks.

Also, surgical debridement, which involves the removal of dead and infected tissue to promote healing and prevent further spread is applied, as well as skin grafting, which in severe cases, may be needed to reconstruct damaged areas.

In case of complications, permanent scarring and disfigurement can occur especially if diagnosis and treatment are delayed. Contractures or limited joint mobility, due to scar tissue formation can also take place.

No vaccine for the prevention of the disease exists currently. However, raising awareness about the disease and its symptoms is crucial. Other measures include, avoiding potentially contaminated water sources in endemic areas, wearing protective clothing and insect repellent in high-risk environments, and early diagnosis, as well as prompt treatment, are essential to prevent complications.

The issues of limited awareness of the disease and the fact that it often affects poor populations in remote and rural areas have hampered the detection of new infections, thus, also hindering progress in the control of Buruli ulcers. However, Research is ongoing to understand the exact mode of transmission, develop better diagnostic tools and explore potential vaccine candidates.

Minister tasks Africa on Mineral Reserves & Reversing Debt Burden

By Patience Chat Moses

In a compelling address at a ministerial roundtable on Powering Africa in Washington DC, Minister of Solid Minerals Development, Oladele Alake, has called upon mineral-rich African nations to reconsider their financial strategies. Emphasizing the pitfalls of mounting debts, Alake urged governments to leverage their proven mineral reserves as equity in joint ventures instead of succumbing to the pressures of loans.

Alake's sentiments were conveyed in a press statement issued by his Special Assistant on Media, Segun Tomori. The Minister, also serving as Chairman of the African Minerals Strategy Group, cautioned against the predatory practices of loan marketers targeting African governments, despite global apprehensions surrounding debt sustainability.

"In the mining sector, in-situ equity, where the verified value of un-extracted minerals can serve as equity in joint ventures, presents a more sustainable financial approach than the path to chronic indebtedness," remarked Alake.

Drawing from his experience as a journalist, Alake underscored the need for discernment in accepting loans, advocating for projects with returns capable of liquidating the debt. He urged African governments to exercise prudence and diligence to safeguard national sovereignty.

Alake further engaged in discussions with the United States International Development Finance Corporation (IDFC), highlighting Nigeria's commitment to revitalizing the mining sector under the vision of the Tinubu administration. He emphasized ongoing reforms aimed at attracting investments and diversifying the economy from oil dependency.

The Minister outlined critical steps to bolster the mining sector, including exploration, establishment of enhanced security measures and fostering collaboration with stakeholders. He highlighted Nigeria's vast potential in critical minerals and underscored efforts to sanitize the sector to attract investors.

In a separate engagement to mark International Women's Day, Alake reaffirmed Africa's dedication to empowering women in the mining sector. Speaking at the International Women's Day Forum 2024 organized by the Women Miners' Association (WMA), Alake stressed the importance of equipping women with requisite skills for leadership and participation in the mining value chain.

The African Minerals Strategy Group, under Alake's leadership, pledged support for women's advancement through technical training, financial assistance, and leadership opportunities. The Minister's commitment reflects a broader vision of inclusive growth and progressive transformation in the mining industry.

…As State Governors pursue Prosperity in Models for Electricity Market Development

By Abubakar Ismail

Aba IPP

In a concerted effort to invigorate economic development and catalyze industrialization, the Federal Government (FG) has fervently encouraged State Governors to embark on visits to the recently inaugurated Aba Integrated Power Project (IPP) in Abia State.

This visitation serves as a pivotal juncture for in-depth deliberations on the plethora of models available for the establishment of robust and dynamic electricity markets across the vast expanse of the nation.

Geometric Power Limited (GP) is a pioneer power project developer in Nigeria. It has established a power generation facility in Aba, Nigeria, to provide high quality electric service to a limited number of large industrial and commercial clients.

Initially, the project consisted of the installation of a 141 MW gas-fired power plant in Phase 1, over 110km of 33 kV and 11kV sub-transmission lines, four new substations and capacitor banks for distribution of power to the large industrial and commercial consumers that had been receiving power from the Power Holding Company of Nigeria (PHCN).

Amidst the sprawling landscape of Nigeria's developmental aspirations, analysts and experts alike have championed the cause of a decentralized power system as the most expedient pathway towards realizing the nation's lofty ambitions of development and industrialization.

According to analysts, central to this vision lies the necessity for the seamless implementation of the Electricity Act 2023, as amended, which stands as a linchpin for any discerning State Government endeavoring to expedite economic growth within the precincts of its jurisdiction.

Furthermore, underscored within this discourse is the quintes-

Irrespective of the model chosen, some analysts underscore the exigent necessity for the crystalline formulation of investment criteria, ensuring the sacrosanct involvement of technically astute and financially solvent investors within the envisaged electricity market.

sential significance of exploring and meticulously evaluating the diverse gamut of State Electricity Market (SEM) models that beckon for discerning consideration and strategic implementation.

Cognizant of the myriad challenges that beset previous iterations of Integrated Power Projects (IPPs) in states such as Rivers, Edo, and Akwa-Ibom, analysts have keenly advocated for a judicious distillation of lessons learned, thereby fortifying states against the perils of past missteps. They adamantly stress the imperatives of adopting integrated systems wherein generation, distribution, and metering converge under the aegis of a singular entity, fostering synergistic efficiency and holistic operational efficacy.

Expounding upon the intricate tapestry of the amended Electricity Act, seasoned experts espouse the virtues of inter-state collaboration, positing regional power markets as the apotheosis of co-operative endeavor. They proffer the concept of regional power grids, meticulously woven along the intricate geopolitical contours of the nation, interlinked by the national grid to facilitate seamless inter-area power exchanges. Such visionary collaboration not only augurs well for states endowed with abundant energy resources but also extends a lifeline to those teetering on the precipice of energy scarcity, fostering economic development through symbiotic energy procurement agreements with neighboring states.

The mantle of oversight and regulatory stewardship over such intricate transactions firmly rests within the purview of the Federal Regulator (FR), calibrated and regulated by the venerable Nigerian Electricity Regulatory Commission (NERC). It is within this domain that the preeminence of Integrated Resource Planning (IRP) stands resolute, serving as the veritable lodestar guiding the strategic allocation of finite resources towards the burgeoning expanse of emerging SEM.

Given the onerous burden of capital-intensive investments inherent within the power infrastructure milieu, some analysts advocate for a pragmatic partnership paradigm with extant distribution companies (DisCos). They herald the advent of a Franchising Model, wherein DisCos judiciously bestow franchises upon third-party entities (Franchisees), and delineating specific roles encompassing panoply of operational functions ranging from electricity supply and procurement to meter management, billing, and network expansion.

Emphasizing the necessity of proper documentation and the assiduous crafting of mutually beneficial agreements, seasoned experts assert the importance of transparent processes to obviate the specter of future misunderstandings and protracted legal entanglements.

The potential salience of fostering a milieu conducive to full retail competition within the hallowed precincts of electricity markets is heralded as a watershed moment, ushering an epoch wherein consumers are bestowed with an array of choices spanning metering and an range of bespoke retail energy services. This transition to a competitive retail landscape not only engenders a fertile ecosystem of innovation but also galvanizes operational efficiency across the entire spectrum of service delivery.

While states retain the option of embracing a vertically integrated model, seasoned experts caution against the attendant vicissitudes and inherent challenges therein, advocating instead, for the ascendancy of private-sector-driven markets as the vanguard of progress. They posit the imperative of fostering strategic partnerships for the ubiquitous deployment of Integrated Power Utilities (IPUs) across the length and breadth of the nation, underpinned by the twin pillars of distributed generation and smart grid systems.

In the crucible of economic exigency and amidst scarce financial resources, governments at both the national and sub-national echelons are exhorted to pivot towards a regulatory rubric conducive to private capital investments within the venerable precincts of the power sector. Measures such as the proscription of estimated billing and the trenchant clampdown on electricity theft emerge as lodestars guiding the path towards operational efficiency and fiscal prudence within the sector.

Irrespective of the model chosen, some analysts underscore the exigent necessity for the crystalline formulation of investment criteria, ensuring the sacrosanct involvement of technically astute and financially solvent investors within the envisaged electricity market.

Transforming Nigeria's Aviation Landscape: Keyamo Unveils Modernization Plans with Colibrex

By Patience Chat Moses

The Management of Africa Aviation and Aerospace University (AAAU) have entered a partnership with the French Aviation School, Ecole Nationale de l'Aviation Civile (ENAC).

The signing of the Memorandum of Understanding (MoU) between AAAU and ENAC was spearheaded by the Registrar of AAAU, Mustapha Abdullahi Sheikh, the Business Development Manager of ENAC, Farbrice Fabre in the presence of the Minister of Aviation, Festus Keyamo and Managing Director, Nigeria Airspace Management Agency (NAMA), Engineer Farouk Umar.

Registrar of AAAU, and the Business Development Manager of ENAC, solidified the ground-breaking collaboration while the Minister of Aviation and Aerospace, Festus Keyamo actively drove the collaboration between both institutions.

The partnership signifies a strong commitment from both institutions to express genuine interest in leveraging their expertise and improve standards of education in the aviation sector.

Together, they aim to drive academic advancement, research collaboration, and student engagement in the aviation and aerospace domains.

Registrar of AAAU, Mustapha Abdullahi Sheikh, noted that the collaboration is at a pivotal moment and that "by partnering with one of the world's leading aviation institutions, AAAU anticipates unlocking new opportunities."

According to him, these opportunities will benefit students, faculty, and contribute to the global aviation industry's progress.

The MoU outlines several key areas of collaboration, which includes training services, educational curriculum development, virtual lecture delivery, research collaboration, workshops, and conferences. Additionally, shared resources, facilities, and capacity-building programs are part of the agreement.

Festus Keyamo

Giving his remarks on the partnership, Business Development Manager of ENAC, Farbrice Fabre, emphasized the significance of this partnership. He added that Implementation of the outlined initiatives is contingent upon a mutually agreed Technical Cooperation Agreement and that both parties are committed to expediting this process.

The collaboration between AAAU and ENAC reflects a shared commitment to excellence, innovation, and global cooperation in higher education.

As they embark on this transformative journey, both institutions are poised to make enduring contributions to the aviation and aerospace sectors.

Meanwhile, Nigeria's Aviation Minister, Festus Keyamo, and Nigerian Airspace Management Agency's (NAMA) Managing Director, Engineer Farouk Ahmed Umar, signed another partnership with Colibrex for innovative solutions.

The partnership was signed when Aviation Minister visited Colibrex facility in Lichtenau, south-western Baden-Württemberg, Germany.

Keyamo asserts that the intent of the partnership is to modernize existing systems, and also replace outdated equipment like calibration consoles with more efficient alternatives.

He explained that, "The decision to explore such alternatives likely reflects an intention to overhaul or upgrade existing systems, which could include revisiting and assessing the fate of older equipment like the calibration console.

Colibrex offers Nav Aide drone technology, boasting advanced measurement and calibration features akin to Calibration Aircraft.

Colibrex's MD, Luc Haebelae, highlights the drone's precision and versatility in adverse weather conditions or remote locations, lowering operational costs.

He acknowledges concerns about adapting to new technology, emphasizing the importance of comprehensive training and gradual integration for enhanced safety and efficiency.

Keyamo sees the adoption of NavAide drone technology as a significant opportunity to propel Nigeria's aviation sector forward.

Accra 2023: How Egypt, Nigeria Conquered Africa

By Saidu Abubakar

Team Nigeria finished in the second position of the 13th All-Africa Games tagged Accra 2023 which ended recently, with 120 medals (47 gold, 33 silver and 40 bronze), only behind Egypt who finished atop the medals table with a total of 189 medals (101 gold, 46 silver and 42 bronze). South Africa finished in third position with 106 medals (32 gold, 32 silver and 42 bronze).

Records have shown that it was the first time in the 59 years history of the Games that any country was achieving the 100 gold medals mark to win.

Algeria with 114 medals (29 gold, 38 silver and 47 bronze) and Tunisia with 87 medals (21 gold, 27 silver and 39 bronze) completed the top five countries while host Ghana finished sixth position with 68 medals (19 gold, 29 silver and 20 bronze), ahead of Ethiopia, Mauritius, Morocco and Kenya completed the top 10 finishers.

Weightlifting produced Nigerian contingent's highest haul recording 32 (16 gold, 10 silver and six bronze) medals.

With 22 medals, athletics became the second most result-oriented event for Team Nigeria in Accra as tracks queen, Tobi Amusan won for the third consecutive time, the All-Africa Games' women's 100 meters hurdles gold medal. And she also anchored the women's 4×100 meters team to clinch the gold medal.

Just as Chukwuebuka Enekwechi shocked all in the men's shot put, Ese Brume defended her shield in the women's long jump, Blessing Oborududu and Odunayo Adekuoroye were perfect as they earned Nigeria 11 medals. In addition, Team Nigeria boxers won eight gold medals in a day to jerk up the bar, while arm wrestling also produced 13 medals.

Against the backdrop of previous editions, as an encouragement to the Team Nigerian athletes and officials, Sports Minister, Senator John Owan Enoh, fulfilled his pledge by paying athletes and officials before their departure from Ghana where they received their camp allowances.

According to reports, medalists in individual events received $3000 for gold, $2000 for silver and $1000 for bronze while for doubles, gold attracted $5000 while silver and bronze medalists smiled home with $3000 and $1500 respectively. For team event of six athletes, gold fetched $6000 while $4000 and $3000 went to silver and bronze medalists.

For team event of 12 athletes and more, gold medalist received $12000, silver $7000 and bronze $5000, while coaches whose athletes won gold received $5000, silver $2500 and $1500 each, respectively.

Egypt

The precious star of the Egyptian team was swimmer Marwan Elkamash, who swam off with five gold medals in the men's 200m, 400m, 800m, 1,500m and 4x200m relays, all in freestyle. But his medals haul was still short of the feat performed by another contemporary Egyptian in previous edition of the Games when Faten Afifi fished out seven gold medals from the pool.

About 5,000 athletes all together, competed in 29 events in the Ghanaian capital of Accra. The athletes benefited from very good competition conditions, with almost perfect weather according to the organisers of the games.

Ghana

"We adopted what we called the hybrid model for building new facilities and modernizing old ones. In Borteyman, we have built one of the best aquatic centers in Africa," said Dr. Kwaku Ofosu-Asare, the Executive Chairman of the Organizing Committee for the 13th Games was quoted as saying.

Fans, spectators and other sports enthusiasts were also in for a treat. They were treated to some great moments of high-level sports.

"It's great to see different sports, different nationalities, different people visiting the country, in such a dynamic environment," said one spectator.

The next edition of the Games is scheduled to be held in Cairo, Egypt, in 2027.

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