PwC's Annual Power & Utilities Roundtable 2024

Report on proceedings and outcomes

Theme

Reigniting hope in Nigeria's electric power sector

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Note: This report is based on the transcription of the proceedings at the roundtable. The responses of panellists and speakers have been edited for clarity and readability.

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Foreword

On November 28, 2024, we convened the 14th edition of our Annual Power and Utilities Roundtable in Lagos under the theme "Reigniting hope in Nigeria's electric power sector." I am pleased to present the report on the outcomes and proceedings of the event. This milestone reflects our commitment to fostering dialogue and driving actionable insights that advances Nigeria's power sector. As the nation works towards achieving sustainable, reliable, and affordable electricity, this roundtable has remained a vital platform for engaging stakeholders, shaping policy discourse, and identifying pathways to move the sector forward.

The 2023 edition of the roundtable centred on the Electricity Act (EA) 2023, a transformative policy that paved the way for significant reforms in the sector. We explored its potential impact, including its provisions for sub-national regulation and renewable energy adoption. However, we also identified implementation challenges and opportunities for stakeholders.

Over the past year, there has been notable progress. The government has shown flexibility and leadership in implementing the EA, engaging stakeholders to address ongoing challenges. Yet, as discussions at this year's roundtable revealed, critical gaps remain.

This year's deliberations also highlighted the key trends and developments shaping the sector's future. Among these were the consideration to transform the Nigerian Bulk Electricity Trading Plc (NBET) into an energy exchange, a move designed to enhance transparency and foster competition in the wholesale electricity market. Similarly, the introduction of NERC's Order on 'Transitioning to bilateral trading' to create a more market-driven and sustainable power sector.

Industry leaders expressed renewed confidence in the sector's outlook, citing reforms that boost stakeholder trust, including the alignment of regulatory and policy frameworks to support the commercialisation of the Nigerian Electricity Supply Industry (NESI).

The journey towards achieving 24/7 sustainable and affordable electricity in Nigeria demands collaboration across all stakeholders. By aligning efforts, fostering innovation, and addressing implementation challenges, we can reignite hope and drive tangible progress in delivering reliable power to Nigerians.

We invite you to explore the insights captured in this report, which encapsulate the essence of the 14th Annual Power and Utilities Roundtable.

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Setting the stage

Introduction

The Honourable Minister of Power, Chief Adebayo Adelabu, the special guest of honour, was represented by his Chief Technical Advisor (CTA), Mr. Adedayo Olowoniyi. Before delivering the minister's remarks, the CTA shared some insights:.

Mr. Adedayo Olowoniyi comments on the sector, focusing on balancing investment vs. consumer expectations

First, congratulations to PwC for hosting this event and for their continued commitment. PwC has worked closely with the Ministry of Power in developing the Integrated National Electricity Policy, which is currently in draft form and will be presented to the Federal Executive Council in the next couple of weeks. We extend our appreciation for their role, alongside other stakeholders, in developing this policy.

Before reading the minister's speech, a few thoughts on the current state of the electricity market and some of the challenges faced.

Historically, Nigeria's electricity issues have been addressed by creating policies and innovative regulations to solve what are fundamentally economic problems.

However, it must be noted that a market without a clear return on investment will not attract investors.

The idea of cost-reflective tariffs has often been avoided, but the reality is that without moving in this direction, investors will not be willing to commit funds. As both investors and consumers in this sector, a rethink of the approach is necessary. Historically, we have paid very little for electricity, and while no one wants to pay more for inadequate service, a decision must be made on what comes first. Will 24-hour electricity and universal access come before establishing a commercially viable sector, or must a commercially viable sector be created first to achieve sustainable 24-hour electricity?

This is a crucial point to consider today, not just as investors and participants in the sector, but as consumers of electricity.

Chief Adebayo Adelabu

Honourable Minister of Power, Federal Republic of Nigeria

Opening remarks

On reigniting hope in Nigeria's power sector

The theme of this roundtable, "Reigniting Hope in Nigeria's Electric Power Sector," perfectly captures the vision we have embraced – transforming challenges into opportunities and delivering tangible progress to every Nigerian. This theme also resonates deeply with our collective mission to restore trust, drive innovation, drive inclusive growth in our electricity sector, and deliver tangible results in our power sector.

The present administration in Nigeria, led by His Excellency, President Bola Ahmed Tinubu, GCFR, with the renewed hope agenda, recognises that energy is not merely a commodity; it is the backbone of economic growth and job creation and under the President's leadership, we have made some progress in the past year in addressing some of the issues across the Nigeria power sector and setting the sector on a path to growth.

To ensure the sustainability of the energy sector, the Federal Government of Nigeria has implemented a multi-pronged approach spanning across legislation with the enactment of the Electricity Act 2023, policy framework with the development of an Integrated National Electricity Policy, introduction of national infrastructure development programmes to expedite infrastructure expansion, leveraging bilateral funding to derisk investment, sector commercialisation to enable project viability and bankability, and strategic partnership with the investment community and development partners to address bottlenecks across the Nigerian Electricity Supply Industry value chain.

Our successes have not been without its challenges. We have recorded frequent grid disturbances recently and dip in supply level due various factors which include aging infrastructure, resource limitations, capacity inadequacy across the value chain, and predominantly the consistent vandalism experienced on the transmission networks across the country.

We are actively addressing these challenges to ensure energy security and sustainability across the country. In the short term, we have implemented measures such as reinforcing standard operating procedures, developing detailed maintenance plans for key transmission substations, conducting line tracing on frequently tripping lines based on data analysis, replacing outdated equipment at critical stations, and assessing the integrity of key nodes to prevent future disruptions. For long-term strategies, we are finalising plans for a super grid project to establish a more robust and resilient grid system.

The theme for this year's PwC's Annual Power and Utilities Roundtable reminds us that hope is not a passive sentiment, but an active commitment and we must continue to innovate, collaborate, and implement bold ideas to restore confidence in our sector to deliver an energy future where every Nigerian has access to reliable, affordable, and sustainable power.

Dr. Yusuf Ali

Commissioner, Planning, Research and Strategy, Nigerian Electricity Regulatory Commission (NERC)

Keynote address

Recent policy reforms and NERC Orders: Exploring their potential to renew optimism in the electric power sector

The goal, with this address, is to assess the Nigerian Electricity Supply Industry (NESI) to determine if there are reasons for optimism. This presentation will be divided into four sections.

First, how did the sector get to where it is today, and what are the key inflection points? Over time, there are various ideas about what has led to its current state. This section focuses on the key pivotal moments that have shaped the sector's structure today.

The second explores what is happening today, concentrating on the fundamentals and commercials. As the Chief Technical Advisor (CTA) mentioned, there is no need to find engineering solutions to commercial problems.

Third, some of the key policy and regulatory interventions that the Commission and the Ministry have undertaken so far this year will be highlighted.

Finally, some principles that should give hope as to why success and reform are possible will be discussed.

The journey that led to NESI's current state fundamentally started in 2001, when the government decided to change the sector's trajectory by focusing on private sector participation.

In 2005, the Electric Power Sector Reform Act (EPSRA) was passed, giving birth to the Commission. By 1 November 2013, the unbundling of National Electric Power Authority (NEPA), which became Power Holding Company of Nigeria (PHCN), was completed, resulting in 17 successor companies: 11 distribution companies, Transmission Company of Nigeria (TCN), and six generation companies. The generation companies were divided into thermals, which were fully privatised, and hydros, which were concessioned out on 30-year concessions.

Since 2013, transmission has been the only sector fully government-owned and operated. The government has a passive shareholder interest of 40% in some of the distribution companies. In 2017, the Power Sector Recovery Plan (PSRP) was developed to reflect on the privatisation process and identify necessary amendments. In 2019, the minimum remittance obligation principle was introduced by the Commission. In 2020, the service-based tariff started with Band A and so on. In 2022, contracts were partially activated as a precursor to transitioning to bilateral agreements. In 2023, the president assented to a change in the Constitution, allowing states to regulate the power sector within their jurisdictions.

Six key inflexion points in the journey of the NESI

Inflexion points

Key inflexion points in the journey of the NESI....

01 Nov 2013 – Broken promises?	2015 –The Toluwani court case	August 2019 – Introduction of MRO	Sept 2020 – Introduction of SBT	June 2023 – Passage of the Electricity Act	2024 Q1 – Reset of NESI commercials
• Pathway towards full tariff liberalisation and the funding of subsidies during intervening period • Funding for mass meter deployment • Agreement on baseline ATC&C	• Injunction preventing NERC from conducting rate reviews • The legal proceedings prevented NERC from reviewing rates till June 2019 (Jan 2015; $1/₦167.50. June 2019; $1/-₦306.45) • No mechanism for subsidy accounting; erosion of DisCo bankability	• MRO stands for Minimum Remittance Obligation • Attempt at proper accounting for liabilities allocation between DisCos and FGN • Under MRO regime, DisCo still invoiced 100% but only expected to remit MRO; lingering issues led to DRO implementation	• Public consultation – willingness to pay based on service • Attempt at tariff review in April 2020 • June 2020 - NASS intervention • Sept 2020 – SBT launched but paused in Oct • DisCo payment discipline to improve upstream flows - Oct 2020	• Constitutional amendment – 17 March 2023 • Presidential assent of EA 2023 – 9 June 2023 • Multi-tier regulatory regime in NESI • States regulate distribution • Unbundling of TCN • NERC sanctioning powers	• Performance agreement – mutual non-performance • Unrealistic loss targets and rapid changes in the macro-economic environment • Rate case hearings; Aug 2023 • January 2024 tariff order –limit bureaucracy on reviews; reset parameters

Figure 1: showing key inflexion points sourced from Dr. Yusuf Ali's keynote presentation, slide 5

Broken promises

The privatisation of November 2013 marked the beginning of the commercialisation of the power sector. The consensus was that the NEPA era lacked commercial viability, resulting in insufficient cash flows to sustain necessary improvements. However, the promises made during privatisation were not fulfilled, undermining its fundamentals. The tariff policy was the first broken promise, as investors did not anticipate subsidies and expected the government to liberalise tariffs. Political considerations influenced the Commission's orders in 2015, leading to changes in some numbers.

The government's promise of mass meter deployment was crucial for the sector's financial health. This promise began to materialise in 2020, with ongoing efforts to improve this aspect.

Aggregate Technical, Commercial, and Collection (ATC&C) losses took nearly a year post-privatisation to agree on baseline numbers. The trajectories used for bids were not accurate, leading to ongoing issues.

Toluwani Adebiyi Vs. NERC

Legal challenges in 2015 included a court case initiated by Toluwani Adebiyi, seeking to prevent the Commission from making rate reviews. This case lasted about three and a half years, during which the naira depreciated significantly, impacting the sector due to its exposure to dollar costs. The lack of a mechanism to transfer non-DisCo obligations to the government further exacerbated financial difficulties, making it impossible for DisCos to secure necessary investments.

Minimum remittance obligation (MRO)

The introduction of MRO in August 2019 was a significant development. The Commission's rate review introduced the MRO to address discrepancies between allowed revenue and actual bills. This localised the subsidy cost with the bulk trader, enabling DisCos to recover their allowed earnings and clarifying accountability.

Service-based tariff (SBT)

In September 2020, the service-based tariff (SBT) was introduced after extensive consultation. In 2019, the Commission sought to implement rate reviews, but the onset of COVID-19 and the lockdown led to pushbacks. By July 2020, the Commission highlighted the need for a rate review due to the dire financial state of GenCos and the lack of government funding. Despite resistance from the National Assembly, the SBT was implemented in September.

The Commission noted that stakeholders were willing to pay for reliable service rather than darkness. Thus, the SBT was introduced, where those receiving high-quality service and benefiting from investments would pay higher rates. However, the SBT faced challenges; it was suspended in October due to labour concerns but was institutionalised by November 2020.

Passage of the Electricity Act

Another significant point for the sector is the Electricity Act (EA). An amendment to the constitution allowed states to take over regulatory functions. Contrary to misconceptions, states have always had the ability to invest in generation and transmission. The change now grants states regulatory oversight within their jurisdiction.

In January 2024, the performance monitoring framework for DisCos, initially managed by the Bureau of Public Enterprises (BPE), was reviewed. The performance agreement required DisCos to reduce ATC&C losses annually. However, mutual non-performance was declared for 2017 and 2018, meaning the government had not fulfilled its part, so DisCos were not held accountable. This mutual non-performance determination was repeated in 2022, allowing core investors to retain ownership despite not meeting targets.

Reset of NESI commercials

The BPE then requested the Commission to take over performance monitoring. It was found that the loss of trajectories in the tariff order was unrealistic. For instance, Kaduna Disco's bid assumed ATC&C losses would be 6% after five years, but by 2022, losses were 65%. This discrepancy hindered revenue recovery. DisCo's requested a rethink, leading to the first-rate case hearings in Nigeria in August 2023.

The Utilities presented their rate requests, customers provided feedback, and independent experts commented. The Commission then determined the tariffs based on these inputs.

In January 2024, a tariff order was issued, but it went unnoticed as customer tariffs did not change due to a government policy decision. However, the fundamentals driving the cost-effective tariff changed significantly, primarily regarding ATC&C. The weighted average ATC&C across all 11 DisCos was around 13%, but after the reset, almost nine DisCos had rates around 25%, with some even higher. Monthly rate reviews were instituted instead of biannual reviews, recognising the rapidly changing macroeconomic environment.

These six periods, shown in Figure 1 and spanning from 1 November 2013 to 2024, encapsulate the current state of the market structure, which has transitioned from a monopoly to a diffuse market comprising approximately 32 grid-connected generating companies.

Current landscape: Focusing on fundamentals and commercials

The market structure of the Nigerian Electricity Supply Industry (NESI) has evolved considerably since the NEPA/PHCN monopoly in 2013, with the Electricity Act (EA) 2023 introducing further changes.

The generation segment is now largely led by private operators, who account for 76% of all grid-connected plants. The Niger Delta Power Holding Company (NDPHC) remains the only government operator, with plans to privatise part of its fleet in the near future.

Captive generation has grown in recent years to meet the demands of large commercial and industrial customers.

Transmission remains the only segment of the value chain wholly under government control. However, ongoing policy and regulatory reforms are expected to liberalise this segment, including initiatives like the Independent Electricity Transmission Network (IETN) and the Nigerian Independent System Operator (NISO).

Based on the provisions of the EA 2023, regulatory oversight of 20 out of 32 distribution licensees and all off-grid operators will be managed by the respective State Electricity Regulatory Commissions (SERCs).

Tariff review

Tariff review Tariff reviews (2020 – 2023) virtually eliminated subsidies but the macroeconomic shocks over the last 20 months have been contrarious…

Annual Subsidy	0.23tn	0.31tn	0.35tn	0.44tn	0.53tn	0.51tn	0.25tn	0.14tn	0.65tn	2.4tn
Yearly change	-	+34%	+13%	+26%	+20%	-4%	-51%	-44%	+360%	+270%

Key Points

- Between Jan 2020 and Jan 2023, tariffs increased from **55% of cost recovery to 94%.**
- Annal subsidy reduced from **₦528bn in 2019 to ₦155Bn in 2022;** Without tariff reform annual subsidy would have risen to **₦665Bn by 2022 (4x of actual)**
- Service-based tariff (SBT) has been instrumental in the transition to cost-reflective levels; **bands A and B were virtually cost-reflective by January 2023**
- Between 2023 and 2024, macroeconomic shocks (largely FX) have driven **cost reflective tariff up by 118%** while **annual subsidy has increased by 270%**

Figure 2: showing tariff reviews (2020 - 2023) sourced from Dr. Yusuf Ali's keynote presentation, slide 8

In terms of tariffs, between 2015 and 2018, the numbers stayed flat due to the referenced court cases. In Figure 2, when examining 2015-2020, the difference between the grey line and the orange line seemed very large. Previously, there was a gap of 29 naira per kilowatt hour, which seemed bad. Today, the gap is about 90 naira. The allowed cost-reflective tariff is a moving target. The slide was updated as of the time of this presentation because the tariff order for December was being issued. The weighted average cost-reflective tariff in Nigeria today is N207. Eko, Ikeja, and Abuja are slightly below this line. Some people mentioned that Band A is cost-reflective, but that's not true. In the case of Yola and Jos, the cost-reflective tariff is above N209.

This is a significant problem because the most reliable source of revenue for the sector is organic cash flows collected from customers. So far this year, the subsidy is on track to be 2.4 trillion naira, almost 6% of the national budget. These are big numbers. The funded portion, as discussed in a meeting with the Chief Technical Advisor to the Honourable Minister of Power, is maybe 200 billion or 50 billion. It's impressive that the GenCos are still powering Nigeria because most GenCos haven't received up to 40% of the invoice they issued in any month this year. No other business in Nigeria provides a service 100%, gets paid 40% in the first month, and continues providing the same output.

Revenue increase

Monthly revenues increased from N31Bn in July 2017 to N160Bn in July 2024; upstream segment has also seen significant remittance growth.

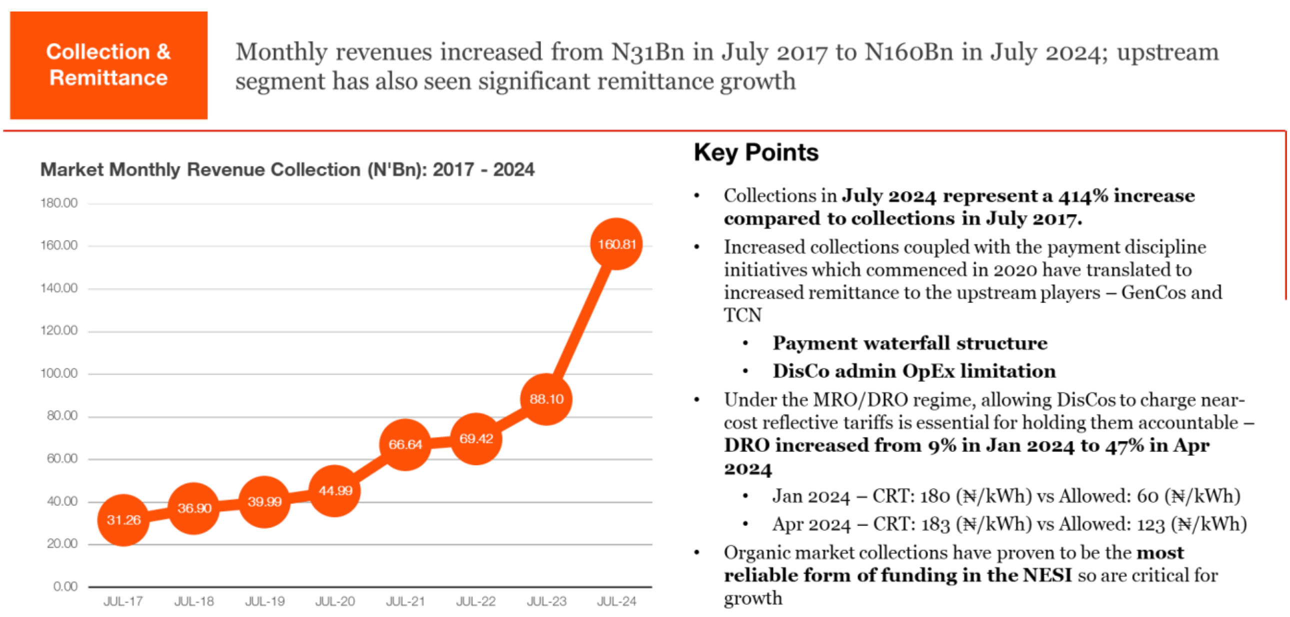


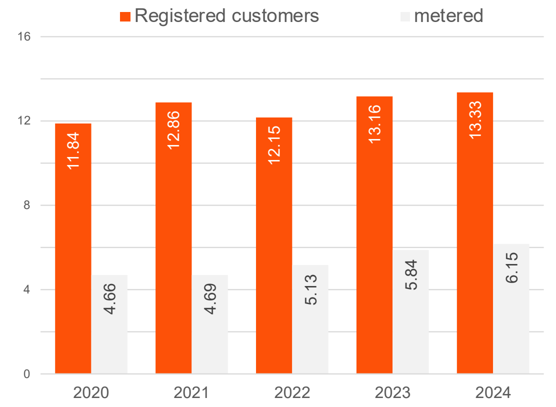
Figure 3: showing collection and remittance reviews data sourced from Dr. Yusuf Ali's keynote presentation, slide 9

In terms of collections, progress has been made. From July 2017 to July 2024, collections increased from 31 billion to over 150-160 billion. However, these numbers are still not where they need to be, with about a 20% market shortfall on average. In the market, there are two types of gaps: a market shortfall, where a DisCo is not collecting what it is supposed to, and a tariff shortfall, which is a subsidy where the government needs to put money to back its policy decisions.

Metering

Despite the fact that 3.03Mn have been installed since privatisation, the metering gap still stands at ~50%; major challenge for sector liquidity

Metered Population (‘Mn): 2020-2024



	2020	2021	2022	2023	2024
Metering Rate	39.36%	36.47%	42.22%	44.38%	46.14%

Key points

- The metering gap that was inherited at privatisation persists **even though 3.03Mn meters have been installed since 2013** under the various frameworks/interventions – CAPMI, NMMP, MAP
- Metering rate **currently hovers around 50%;** half of all customers are billed based on estimates
- The metering challenge is not helped by the **poor level of customer enumeration** across DisCos
- Metering is the lifeblood of revenue recovery; **the effectiveness of tariff reforms will be imperiled by poor metering**
- Some of the ongoing interventions geared towards the accelerated deployment of end-user meters include -
  - **Presidential Metering Initiative (“PMI”)**
  - **World Bank DISREP**
  - **Meter Acquisition Fund (“MAF”)**

Figure 4: showing metering data sourced from Dr. Yusuf Ali’s keynote presentation, slide 10

Metering is a significant issue. Since 2013, 3.3 million meters have been installed by the DisCos and the government through mass metering initiatives. However, there is still a 50% metering gap. This raises the question of what the situation was in 2013. If 3 million meters have been installed and there is still a 50% gap, the metering rate in 2013 must have been very low. These foundational issues prevent revenue recovery. While estimated billing might balance books in the short term, within three years, uncollected money will have to be written off as provisions because unmetered customers will almost never pay what they are billed.

The good news is that the government has about three initiatives ongoing to address this. The Presidential Metering Initiative (PMI) aims to install 3 to 4 million meters. The World Bank's DISREP has about 3 million meters in two tranches, with the first tranche starting delivery in April. The Commission also has a Meter Acquisition Fund (MAF) provision, giving DisCos about 25 billion naira to supply 200,000 meters this year. These are small steps, but DisCos must ensure they are metering the most critical customer segments to extract value in the short term.

Key policy and regulatory Interventions

There are several ongoing actions by the Commission and the Ministry. The Chief Technical Advisor to the Minister has highlighted the National Integrated Energy Policy and Strategic Implementation Plan (NIEP-SIP). This policy, once in place with the right enforcement mechanisms, will provide a trajectory for the sector. A key problem for the sector is being reactive. The NIEP-SIP is proactive, bringing structure, offering a short, medium, and long-term view of necessary actions.

A key policy action that happened in April was the tariff reviews, which are not favourable for any government. However, the best practice is for the government to depoliticise rate-making. To prevent the perception that rate-making is politically motivated, Nigeria needs to be intentional about removing politics from the process.

The third issue is the transition to bilateral contracting. NERC issued an Order in July [2024] to push more of the market into take-or-pay contracts, the gold standard for wholesale energy contracting. The objective was also to introduce competition in the wholesale upstream energy space, with multiple GenCo and traders in the market.

NERC also issued an Order limiting GenCo exports. Around mid-year, Nigeria's generation of electricity wasn't great, and GenCos were prioritising foreign customers because of their economic value. Some of the GenCos have international bilateral agreements with neighbouring countries like Benin Republic, Togo, and Niger. There were instances where these GenCos prioritised these neighbours over Nigeria. It's a good business decision as payments from international contracts are in dollars, making it a double win. However, regulation was necessary. Only 10% of the grid's capacity, up to the contract limit, is allowed for international agreements, increasing available generation for Nigerians.

The approval was issued for the TCN Performance Improvement Plan (PIP) and the CapEx plan. One of the big challenges over the last three to four years was that TCN had a lot of money, especially going into 2021. The former MD, Usman Gur Mohammed, was very good with donors, securing funds from AFDB, the World Bank, and others. However, the money allowed for CapEx was sitting in accounts due to the politicisation of contracts. For example, TCN would install a 100 MVA transformer in an area with a demand of only 40 megawatts because someone believed bigger was better. TCN is seen as a superhighway serving the nodes on the highway, so projects should be determined by off-takers' needs. The PIP approved was very DisCo-led, ensuring projects bring value to the market in the near term. The separation of TCN into Transmission Service Provider (TSP) and the Independent System Operator (ISO) was also addressed, as per the Order issued in May [2024].

In April [2024], Band A tariffs were reviewed to cost-reflective plus. Some stakeholders questioned why people were paying N209 or N225 naira if the cost-reflective tariff is N207. In most electricity markets, cross-subsidisation is common. Higher earners are charged a premium above the cost to create a pool of funds to subsidise lower-income customers.

Some renewable energy integration into the grid was also mandated. Each DisCo was required to have 10% embedded generation, with half of that being renewable energy by April 2025. Good progress is being made with the World Bank's test programme.

In February [2024], a regulatory sanction was issued against DisCos for non-compliance with capping. In a market where 50% of customers are not metered, billing is a very sensitive issue. Since 2021, the Commission has tried to establish fair caps, but DisCos often break these caps. Sanctions for non-compliance were issued in response.

Creation of an Independent System Operator (ISO)

When TCN came into effect, two licences were issued because the wires business and system operation are very different. However, administratively, both are under TCN. In a good market, the ISO should be an independent arbiter of disputes, determining fault in incidents.

Market participants, primarily the GenCos, have been complaining that the marriage between ISO and TSP under the same umbrella has meant they are not getting a fair crack at the whip when issues arise from the grid. It is difficult for the ED of ISO to penalise the MD of TCN. The EA was clear about creating an independent ISO, detailing the process for the department of the board and so on.

In May 2024, the Commission issued an order providing timelines for actions by BPE, the Ministry of Power, and the Ministry of Finance Incorporated to bring this to life.

Separating government entities is not straightforward. Work is ongoing towards the NCP deadline for the asset transfer order, which includes human resources. Progress is being made, and hopefully, by next week, NCP will approve the asset side of things. The Act provided for an independent board nomination committee to vet candidates, with the Ministry of Power involved in the process.

The benefits of NISO creation include an inclusive board where all market participants have a say, ensuring the independence and impartiality of the ISO. It will act as an independent arbiter of disputes, improving investor confidence.

Currently, many GenCos and DisCos are disgruntled with TCN, seen as the father of everyone. NISO will provide a more even playing field. The EA's competitive process for appointing management is unusual in government but should bring out the best people for the job, significantly influencing the organisation's success.

Future outlook and investor confidence

Many tactical reforms are being implemented by the Ministry. However, foundational shifts are more critical for investors. Five key areas indicate positive changes in the sector over the next few years.

The first and potentially most important is policy and regulatory alignment. In 2020, there was a significant gap, with private sector players exploiting discrepancies between the Ministry and NERC. Since then, starting with the power sector working group, there has been significant alignment between policy and regulatory sides, sustained by the current minister. This alignment assures investors that the government is unified in its direction.

The second focus is on revenue assurance. As the Minister's Chief Technical Advisor mentioned, engineering solutions are not needed for commercial problems. The lack of power in Nigeria is not due to a lack of engineering knowledge but the absence of a conducive policy and regulatory environment to attract investment. Revenue assurance is a key component. The government is committed to tariff reform. The April reforms are ongoing, as the market still faces a significant deficit that needs addressing.

Another significant intervention is in metering. Metering is crucial for collecting money from customers, so it's a priority on both the policy and regulatory sides. Closing the metering gap significantly will show investors a clear path to full revenue collection.

Regarding the PIP for TCN and DisCos, it is now more critical to ensure that today's investments address the lowest hanging fruit from a revenue standpoint. Investors can be patient if they see immediate returns that allow for further investments in other areas.

The issue of subsidy redesign is also crucial. Currently, subsidies are determined by setting a tariff cap that customers should not exceed. However, the cost-reflective tariff is a moving target, exposing the government to significant uncertainty. High-level discussions are ongoing between the Ministry and the Commission to potentially implement the Power Consumer Assistance Fund (PCAF), which would bring certainty to government subsidy obligations and help target subsidies more effectively.

Balancing market powers is another principle that should give confidence. TCN has historically been the dominant player in making determinations. With bilateral contracting and the board of the NISO, the aim is to give everyone more seats at the table, ensuring all interests are represented and balanced. The Commission is taking its quasi-judicial functions more seriously, providing avenues for stakeholders to voice their concerns and receive fair determinations.

Contract discipline is essential. Without it, the market cannot function effectively. Bilateral contracting, SLAs between DisCos and TCN, and agreements between TCN and generating companies are measures believed to enhance market discipline and attract investors.

Lastly, the transfer of regulatory functions to the states could be beneficial. Local solutions for local problems can be more effective. State regulators are closer to the ground and understand local needs better. However, state structures may not be as resilient as federal ones, and there is a risk of direct interference. Despite these concerns, it is essential to embrace the EA and support states in implementing these changes. Done right, state regulatory functions can help investors localise their risks and make progress.

03

Panel discussion

Panel discussion

Bimbola Banjo

Partner, Energy, Utilities & Resources

The roundtable, moderated by PwC's Bimbola Banjo, Partner in Energy, Utilities, and Resources, featured a panel of industry leaders.

The panellists included Mr. Deolu Ijose, Managing Director of Benin Electricity Distribution Company; Dr. Yusuf Ali, Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC), who delivered the keynote address before joining the panel session; Mr. Johnson Akinnawo, FCA, CFAN, Acting MD/CEO of Nigerian Bulk Electricity Trading Plc (NBET); and Mr. Akin Olagbende, Legal and General Counsel at Geregu Power Plc, representing the CEO, Mr. Akin Akinfemiwa.

The moderator kicked off the discussion by asking each participant to share their thoughts on whether the Nigerian Electricity Supply Industry (NESI) had progressed on the background of Dr. Yusuf's presentation.

Mr. Akin Olagbende

Legal and General Counsel at Geregu Power Plc, representing the CEO, Mr. Akin Akinfemiwa

Q&A

How would you assess the progress of the NESI, and what are the factors driving your assessment?

On the GenCo side, since 2023, in terms of policy, infrastructure developments, and the commercials of the business, NESI has improved quite dramatically.

The functioning of NERC was a critical driver of this progress. They provided a lot of guidance and structure on how agreements were made in the sector. Further, NERC rigorously policed the standards required, in terms of capacity, which allowed GenCo's to increase efficiency and, by doing so, increased generation.

The NESI is not there yet, as has been alluded to by the NERC Commissioner and the Chief Technical Advisor (CTA), but considering where we started from, it has made significant progress.

We are hopeful that with further regulations and government policy, the NESI will continue to progress even more.

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Q&A

Having heard from the GenCo side, how would you evaluate the progress of the NESI from a DisCo perspective?

When we look at the sector since 2013, we can agree that there has been progress, although it may not be at the level we had hoped for. It's clear that the regulator must play an unbiased role, and many actions have been taken to stabilise the system, which is ongoing.

One critical point, as the Commissioner mentioned earlier, is the need for a cost-reflective tariff. There has been a struggle to implement this, but it is essential for building confidence among all market participants, including the GenCos, DisCos, and TCN. Previously, tariff reviews were expected every six months, but with the current economic fundamentals, monthly reviews are now conducted. This change gives investors' confidence that they will likely recoup their investments.

Market discipline has been instituted with the backing of both the regulator and the federal government to ensure that things are done correctly. The regulator’s intervention in resolving contract disputes has provided comfort regarding the SLAs we signed. These critical rules have provided comfort to the market, and I believe we have made significant progress since 2013.

Mr. Johnson Akinnawo, FCA, CFAN

Acting MD/CEO of Nigerian Bulk Electricity Trading Plc (NBET)

Q&A

Subsidies and cost-reflective tariffs have been key themes so far. As the head of the body administering some of these subsidies, has the sector progressed? What's role of NBET and your view on subsidies in Nigeria’s electric power sector?

For me, the cup is half-full rather than half-empty. Significant progress has been made in the sector, although we are not there yet. It's not Uhuru yet. The government remains committed and continues to support the sector across the value chain.

There have been various interventions, such as the "Decade of Gas" initiative, which includes numerous incentives to boost non-associated gas investment and increase production to power plants.

You may have heard about the investments in the transmission network, including the FGN, the Presidential Power Initiative, and the Siemens project. Additionally, there are ongoing projects by the REA to provide electric power to the unserved and underserved communities, and the DISREP project in the distribution sector with support from the World Bank.

Regarding cost-reflective tariffs, there is indeed a need for them. However, one area that requires further improvement is the sensitisation of downstream consumers. People need to understand that electricity is a product with a cost, not a service that the government is obligated to provide for free. If citizens are properly informed and sensitised, they will be more willing to meet their obligations.

As for NBET's role in the market, its contributions over the past decade have been largely underestimated and underrated. NBET has brought significant stability to the sector and continues to fulfil the role assigned by the government in the power sector's unbundling and reform. It has transitioned from a fully integrated utility to a largely private sector-driven entity, administering contracts and serving as the vehicle for government interventions.

Overall, I would say the sector is making gains. The fundamentals are being addressed, as highlighted in Commissioner Yusuf's presentation. Addressing these fundamentals is key to growth and attracting the increased investment needed to transform the sector.

Mr. Johnson Akinnawo, FCA, CFAN

Acting MD/CEO of Nigerian Bulk Electricity Trading Plc (NBET)

Q&A

You've emphasised the significance of NBET over the past few years and its potential future role. Given that the Electricity Act includes provisions for NBET's eventual sunset, how do you see NBET's role evolving in the coming years?

NBET was established as a transitional entity to play a critical role in the sector. Once the distribution companies gain financial viability and can transact with generation companies, NBET will step back and exit the market.

Initially, NBET was given a 10-year licence, which was renewed in 2021 for an additional three years. Our licence was due for renewal on 14th November, and following a renewal application and public hearing, it has now been extended for another three years. The intention from the beginning was not for NBET to exist in perpetuity.

NBET has been fulfilling its role commendably, disbursing over 8 trillion naira in the Nigerian Electricity Supply Industry (NESI). This level of disbursement, with relatively zero scandal, is unprecedented in any sector in Nigeria, whether pension or oil and gas. The funds have been distributed fairly, with no generation or distribution company complaining about unpaid dues.

Looking ahead, NBET is transforming into an energy exchange, as approved by the NBET board and the National Council on Privatisation in 2023. This transformation aims to further support market development. The bilateral market is struggling to take off due to the need for a facilitating vehicle, given the current state of the Nigerian electricity market. In the coming months, NBET will become an energy exchange where willing buyers and sellers of electricity can transact transparently. Price discovery will be achieved through algorithms, leading to a gradual reduction in electricity prices per kilowatt-hour.

In other countries with established energy exchanges, such as Turkey and India, we have seen that as the exchange matures, it brings about price discovery and moderation over time. This development will also boost investor confidence.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

Following the extension of three years granted to NBET, what can we expect in the next three years? Also, regarding the implementation of the Electricity Act (EA), how much progress have we made, and what further advancements are we anticipating?

Regarding NBET, the Commission issued a renewal for three years. Some of the key KPIs we expect over this period include improved competition in the upstream sector of the market. From NBET's perspective, it currently holds eight fully effective contracts: five thermals and three hydros. The hydros are keen to leave NBET and trade bilaterally, and the Commission does not expect NBET to obstruct this, as it is a free market.

Among the contracts NBET holds, the longest is the Azura contract, which extends beyond three years. The Commission expects NBET to devise innovative ways to manage this contract. As the MD mentioned, the NBET team is known for its innovation.

The Energy Exchange is a crucial issue. The more traders there are, the better, as different types of trading can occur in the wholesale market, such as forwards, day-ahead markets, and hourly markets. NBET has extensive experience and is expected to play a significant role in the Energy Exchange. However, we hope for a wind-down of legacy contracts, as it would be excessive for NBET to exist solely to operate on one contract.

NBET holds contracts with Azura, two Pacifics, Afam 6 (Shell, now NNPC), and Okpai (AGIP, now Oando). The latter two contracts are set to expire within the next three years, aligning with NBET's contract. We aim to move Pacific towards bilateral trading due to its commercial benefits for the market. NBET should engage with Azura to innovate or manage the contract in a way that does not require NBET to remain an entity, allowing it to focus on the energy exchange.

The exchange is an exciting development for NBET. On the issue of the Electricity Act (EA), it is a complex document, but progress is being made. Key components include the Ministry of Power working on the National Integrated Energy Policy and Strategic Implementation Plan (NIEP-SIP), with significant progress reported by the Chief Technical Advisor (CTA).

The EA also allows states to exercise regulatory functions, which is progressing. The Commission has explored the potential for a sunset clause for all states to transition, addressing complications arising from a hybrid system where DisCos operate under both federal and state regulatory structures. For example, Enugu DisCo operates in five states: Ebonyi, Enugu, Imo, Abia, and Anambra. Regulatory entities have been established in Enugu and Imo.

Although we proposed a holding company model to manage the transition, it is not straightforward due to the need to delineate assets and liabilities. Nonetheless, progress is being made. We will meet with the state electricity regulatory commissioners next week to help them establish their frameworks.

Regulatory work is akin to marriage; you receive certification before starting but are not taught what to do. Our role as regulators is to guide them through this process. I believe all key components of the EA are receiving appropriate attention, even if some are less glamorous. Steady progress is being made across all areas.

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Q&A

As a distribution company, the Electricity Act has the biggest impact on your operations. What has been your experience working with potentially four sub-nationals who have regulatory oversight?

At Benin DisCo, we fully cover four states. The transfer of regulatory functions to states is a welcome development, indicating progress from initial arrangements to a medium-term market, nearing maturity.

The essence of this programme is to decentralise oversight functions to subnationals, which is ongoing. This decentralisation allows states to establish their own regulatory bodies, licensing more generation companies. Many IPPs and embedded generations are emerging, and more distribution companies are being licensed, reducing reliance on the current 5000 megawatts distribution.

While major policy reforms come with challenges, the positives are evident. More generation and distribution companies are emerging, and state governments are leveraging regulatory functions to attract investors to support both GenCos and DisCos. States are also investing in metering infrastructure, closing gaps in infrastructure and metering.

For Benin DisCo, covering Ondo, Ekiti, Delta and Edo, the transition involves significant costs, such as asset valuations and revaluations, and separating consolidated accounts into state-specific entities. These costs, which can be substantial, need to be addressed, possibly as part of the Multi-Year Tariff Order (MYTO).

Capacity building is crucial. States must recruit and train experts, not just move civil servants to regulatory roles. Independence of state electricity regulatory commissions is vital, mirroring NERC's independence to ensure confidence among the public, customers, and investors.

The transition is evolving, and while there are challenges, collaboration continues to address issues. NERC's guidance is helpful, but solving these challenges is essential for progress. The cost of transitioning, estimated between one to two billion naira, is a significant factor that needs attention.

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Q&A

You mentioned state funding for metering and related areas. How is this funding provided — through grants, subsidies, loans, or additional investment? What is the nature of this funding?

The state's involvement in this will essentially affect the Regulatory Asset Base (RAB) in the long run.

Some states are providing a form of grant to the public, which they expect to be included and eventually repaid. However, what is currently happening is that the states are supporting the citizenry, likely through discounts.

This is a repackaging of the Meter Asset Provider Scheme (MAPS), which may include subsidies. The DisCos will undoubtedly repay this loan.

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Q&A

With state funding for meter acquisition added to the regulatory asset base, will the tariff need adjustment? How does the loss of scale benefits at state and mini-grid levels impact the capacity to pay for people in Delta, Edo, Ekiti, and Ondo? Are they financially capable of handling this adjustment? What is the impact, and how are the states and DisCos collaborating to address this issue?

When the states express their intention to perform the regulatory functions, we can assume they have considered the implications. For instance, we're talking about the tariff adjustments made on a monthly basis.

NERC hasn't adjusted the tariff effective from December, considering it should have been implemented in November. Therefore, you can expect a new tariff to be crafted for each state, which may differ.

The reality is that due to the respective adjustments, states have two options: either adopt a cost-reflective tariff, which we've discussed, or continue with the current subsidy model. All states are currently opting to continue with the MYTO as configured by NERC, but this can only be temporary.

When this adjustment is made, the tariff will significantly increase. We've worked on some numbers to illustrate this. The states are not ready to take up the subsidy, and no one has suggested a complete overhaul of the tariff. So, we are still debating. The tariff will undoubtedly be affected, but the question is how it will be implemented. This remains a significant issue.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

Dr. Yusuf, does the Electricity Act cover the deployment or framework of regional utilities? Also, with states granted autonomy, can a few states form a regional utility? If not, what needs to happen to make it feasible?

This is a vital legal question, which I may not be well-placed to answer definitively. The concept of a Joint Electricity Regulatory Commission (JERC), which you're referring to, is used in India because some states are too small to have their own regulatory bodies. Indian law provides for JERCs, but Nigerian law does not. Therefore, the argument can be made that the framework doesn't exist here.

If a few small, contiguous states—contiguity being crucial—decide to form a JERC, it could work. This will require the contiguous states to make their laws identical, meaning the parameters of operation do not differ. Amending the current EA to reflect this ought not to be complicated. If a few states want it, they could consider pushing for it. As a senator once said during the drafting of the Electricity Act (EA), a law is ripe for amendment the moment it is passed.

In Nigeria's context, a JERC could be very powerful because we have some significantly small electricity markets. Some states don't even reach 40 megawatts. Forming an office to regulate a 40-megawatt market isn't economically prudent.

For a regulator to be independent, they need financial autonomy, which means recovering operational costs from rates. Unfortunately, there's a minimum viable office requirement for each regulator, including certain divisions and manpower. The manpower requirement isn't linear; the bigger the market, the more people you need.

The Nigeria Governors' Forum (NGF) should consider pushing for the establishment of JERCs in the National Assembly. If the current legal framework doesn't allow it, this can be easily amended. It could be very useful.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

During your presentation, you mentioned that industry stakeholders consider the bilateral framework one of the more disruptive regulations. Could you elaborate on the drivers behind this framework? Also, discuss the progress so far and when we can expect players to realistically engage in bilateral contracts on a more sustainable basis?

One reason for the short timeline in implementing the bilateral transition framework was partly due to the uncertainty around NBET's future. Initially, DisCos and GenCos were negotiating power purchases without fully understanding the risk allocation matrix. This led to mismatches with TCN agreements.

About six weeks ago, the Commission organised a two-day retreat for stakeholders to align on risk management. The key focus was determining responsibility for failure events. They explored various scenarios to manage risk before reaching an alignment.

Disturbances with TCN impacted the discussions. However, there is ongoing work to resolve this, which is driven by the Ministry of Power. Making the grid robust is not something that will happen overnight.

Within the next three months, we should be ready to implement the bilateral transition framework. Some DisCos have been more proactive, already finding partners for bilateral agreements. The challenge is balancing revenue to cover these agreements without exposing NBET, which can only pay what it receives.

NBET's admin costs aren't covered by collections from GenCos or DisCos, making it a tough balance. DisCos need enough revenue to cover bilateral agreements, as bilaterals don't allow partial payments like MRO (Minimum Remittance Obligation) and DRO (Discretionary Remittance Obligation).

Mr. Akin Olagbende

Legal and General Counsel at Geregu Power Plc, representing the CEO, Mr. Akin Akinfemiwa:

Q&A

With some DisCos and GenCos advocating for a bilateral transition, what has been your experience in this context, in light of Dr. Yusuf's comments on the policy?

On the GenCo side, we've embraced the bilateral transition. For us, it provides a source of revenue stability and gives us the opportunity to talk directly with our off-takers. This leeway allows us to create or negotiate bespoke contracts tailored to who we are and who they are. As a thermal power producer, we can structure the demands of our gas suppliers into bilateral agreements with the DisCos.

We embraced that. However, what we found on our side, specifically towards Gerugu Power Plc, was that the pool of off-takers was very limited. Most DisCos already attached to a GenCo automatically moved in that direction. Where a GenCo did not have a DisCo in its own slipstream, it was unable to do so, and we found that difficult. The pool of off-takers needs to increase.

Credit capacity was also an issue. The creditworthiness of some of the counterparties we were discussing created problems. Securitising these contracts and making them bankable was also difficult within the initial timeframe. With more time and the better structure now provided by NERC, we can continue to have those discussions.

Mr. Johnson Akinnawo, FCA, CFAN

Acting MD/CEO of Nigerian Bulk Electricity Trading Plc (NBET)

Q&A

Do you have any unique perspectives on the bilateral transition?

With the bilateral transition, we're discussing the market moving from a transitional electricity market to the next phase, which is the medium-term stage of the market. The different stages will include, the pre-term, which is the pre-transition electricity market; the term, which is the transitional electricity market; and then the medium-term stage of the market.

Mr. Akin Olagbende referenced an issue that is a precondition for the commencement of the medium-term stage: the existence of creditworthy distribution companies. This has now become a challenge in pushing towards the bilateral stage. However, it is a precondition, one of the conditions precedents for moving into the term stage.

We are aligned with the Commission that the bilateral transition is the way to go. It's important to note that the Commission has also been very receptive to feedback from the market. The bilateral term was supposed to commence on the 1st of October and was then moved to the 1st of November. The Commission, being cognisant of the market dynamics, shifted the timeline slightly to ensure that everything is in place. This feedback has led the Commission to moderate the aggressiveness of the implementation timeline further.

One of NBET's key goals is to achieve a game-changing milestone: the Energy Exchange. Currently, distribution companies are required to post three months' payment security to NBET, which sums up to billions tied down with banks to back up the LCs. When an energy exchange starts, you will be required to post short-term payment security of probably one week, seven days, to secure your trades.

As the commissioner said, it's early days, and we are all working together to scale this market in the right direction, ensuring contract discipline and a functional market.

Insights from the Chief Technical Advisor, Mr Adedayo Olowoniyi, on the bilateral transition:

From a policy perspective, we agree that bilateral trading is the way forward. However, there are clear preconditions to ensure that we can conduct bilateral trading efficiently.

The NERC Commissioner has mentioned that we believe we can achieve this in the next few months, but certain preconditions must be met. For example, we need to bridge the gap where a market that is paying only 40% of its energy bills will be trading bilaterally based on that 40%. Much of this 40% is also dependent on the absence of a CRT (Cost-Reflective Tariff) in the market.

This is why certain measures need to be implemented to ensure that bilateral trading can occur efficiently. If your bilateral partner downstream is a DisCo with significant balance sheet issues, the credibility of that agreement remains problematic. Therefore, securitising the revenue stream to ensure that upstream agreements are executed properly is crucial. This ties back to managing tariffs, understanding market revenue, and increasing that revenue to ensure all contracts are viable.

Regarding state markets, two key issues are independence and capacity. The capacity issues from a state market perspective cannot be underestimated. NERC is a great example; since its creation, significant training and capacity building have been required to reach its current state.

Many state markets, as the Commissioner indicated, may be buying 100 megawatts of power. Can they truly be independent from their state administrator with such meagre revenues? Revenue independence is the first step to regulatory independence. If you need support from your state, you cannot make independent decisions.

On the energy exchange, one challenge not mentioned is price discovery. There is a lack of price discovery in the energy market, particularly upstream. GenCos also complain, but when examining upstream tariffs, many questions arise. Market competition is the best way to determine pricing based on available capacity, and price discovery is crucial.

In conclusion, aligning policy and regulation is essential. Personally, we continue to focus on working with the Honourable Minister to close gaps between policy and regulation. These gaps allow the private sector to choose their preferred side. Closing these gaps will create a disciplined market that follows market rules.

Panel discussion

Mr. Akin Olagbende

Legal and General Counsel at Geregu Power Plc, representing the CEO, Mr. Akin Akinfemiwa:

Q&A

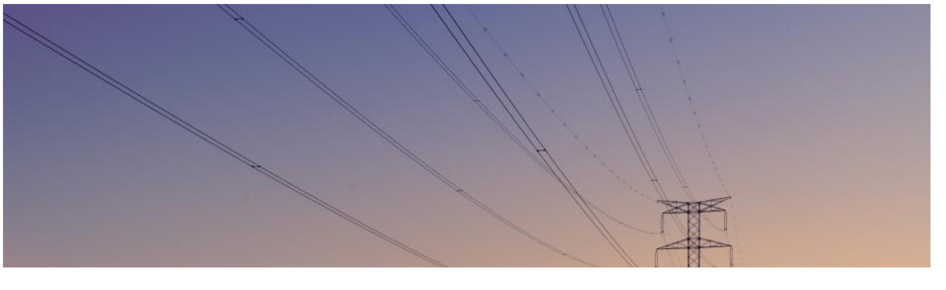
COP29 was concluded recently, with pledges of about $300 billion from Global North. How much of this is likely to come to Nigeria, and how would it be deployed?

There is scepticism when discussions arise about pledging and the actual funds that materialise. However, the assumption is that based on the criteria for Conference of the Parties (COP) funding, it will be focused on climate change, climate regulations, and the funding entities' rules around that.

On our side, we do not anticipate much impact on us or from a generation's point of view. Thermal energy producers are viewed as dinosaurs and fossil fuel creators, so significant changes are not expected regarding accessing COP funding. However, if any funding does come in, it is expected to be directed towards elements such as carbon trading. Initiatives like that, as well as efforts to enhance flood defences and support communities dealing with climate change impacts, and also in renewables, are anticipated to receive funding.

The move towards renewables is gaining momentum. Most southern hemisphere countries are shifting towards more renewable energy sources. In Nigeria, solar energy usage is almost at 13%. Therefore, entities focused on renewables are expected to benefit more from these funds.

For thermal energy producers, the most that can be done is to offset the carbon footprint by looking at combined cycle processes, which would allow the steam generated from turbines to power additional turbines. There are World Bank and COP grants available for that as well. But beyond that, not much impact is expected generally.



Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

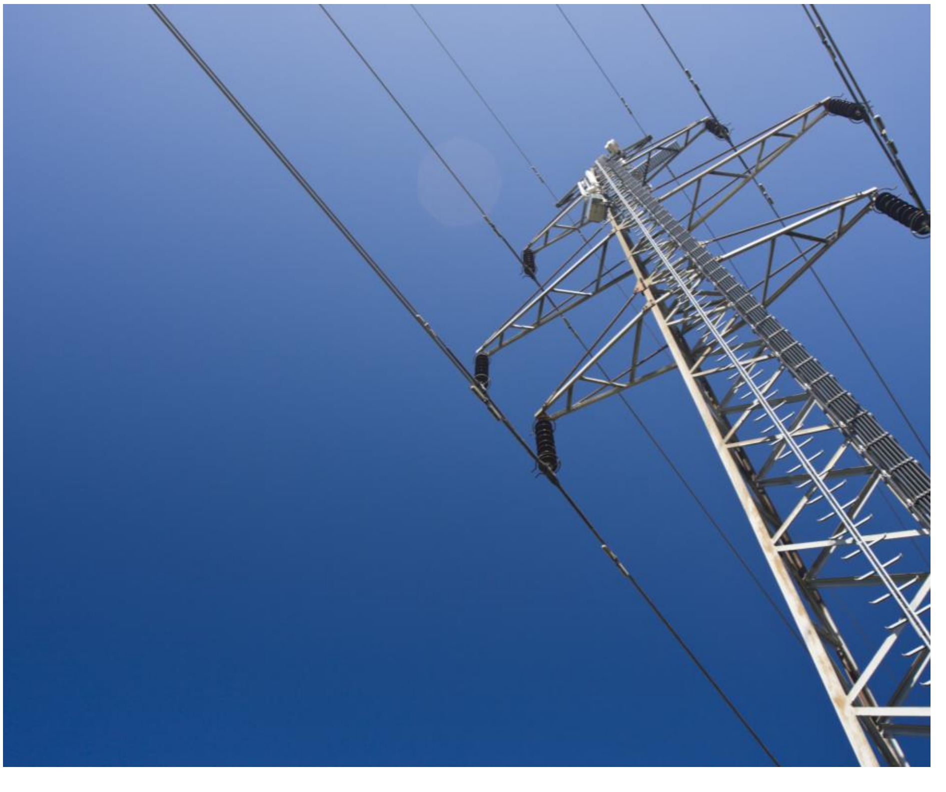
Any additional comments on the $300 billion pledges from COP29 and the implications for Nigeria?

Engagement with key policy stakeholders highlighted that the international cooperation framework to fight climate change is insufficient and inadequate. The world needs to rethink how collaboration is approached to combat climate change, primarily because there's no direct causality between fighting climate change and feeling its impact.

For instance, a country can decide to go green, invest all the money, and do everything right, but if other countries don't follow suit, the green country still feels the environmental impact. Because of this, many of the pledges are unlikely to be kept. The biggest international funder in the world is the United States, and with the new administration being quite sceptical about climate change, a downturn in global funding availability to combat it can be expected.

In addition, it's very difficult for countries to prioritise climate change over domestic issues. People are struggling with basic needs like food, and it's hard for a president to go to their National Assembly and say, "Our people are suffering, but I want to use our limited funds to help another country fight climate change."

The error was made at COP21 in Paris by nationalising the targets for climate change. This arrangement, where every country takes pride in becoming green for itself, doesn't seem effective. There is scepticism about how much Nigeria will receive. There's this Mission 300 initiative by the AfDB to electrify people, and Nigeria is supposed to get about 20% of the allocation. However, it's not a lot of money, so scepticism remains.



Audience interaction session

During the panel session, the audience had the opportunity to ask questions. The moderator posed key questions to Dr. Yusuf Ali, Mr. Adedayo Olowoniyi, and Mr. Deolu Ijose. Following Dr. Yusuf Ali's response, Engr. Olalere Odusote was given the opportunity to ask him a follow-up question.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

To enhance market transparency and accountability, could NERC publish data specifically on the revenue consumed, billed, and collected for Band A customers?

NERC is required by law to publish quarterly reports. In addition to that, monthly fact sheets are also issued. The one for September was recently published on the website and social media. We may consider publishing a Band A specific report. There's nothing stopping us from looking into it, but it's unclear what that would achieve. The big issue with Band A is actually service delivery. Starting this week, IoT meters have finally begun to be implemented, with installations on all Band A feeders across the country.

Previously, there were gaps in data reporting requirements and the Commission's oversight functions. This meant that there were instances where a DisCo could claim they provided a feeder with 20 hours of power, but customers would still complain. One reason for this is that feeders are monitored, while customers monitor their own duties. Between a duty and a feeder, many things can go wrong.

It's possible for a feeder to be energised, but the last mile (customer duty) doesn't receive supply. To address these concerns, the IoT meters will stream availability data from the feeder every 15 seconds. At the end of the day, the dashboard will compute this data into 24-hour rolling averages, two-day averages, seven-day averages, and so on. This will help address the issue.

However, it should be noted that Band A is nothing special. Band A is barely paying cost-reflective tariffs today. The cost-reflective tariff is 207, and Band A is 209. The reality is that whether in Band A or Band E, the unit cost of providing electricity is the same.

When the banding started in 2020, the difference between Band A and Band E was about a 60% multiplier. The tariff reviews this year focused exclusively on Band A, making the delta become so large that people now say, "I don't want to be in Band A; I want to be in Band B."

It's very strange that people want less power so they can pay less. As highlighted by the Chief Technical Advisor, the Ministry of Power is working on the policy side. To get the market to be cost-reflective, it can't be done by just moving Band A alone. Ultimately, everyone will have to contribute their fair share to ensure adequate power supply provision to all Nigerians.

Mr. Adedayo Olowoniyi

Chief Technical Advisor to the Minister for Power

Q&A

Is there any plan to delink domestic gas transactions from U.S. dollars? The floating currency- value determined by market forces of supply and demand- affects naira income businesses with foreign exchange inputs. Can we change the functional currency of gas and oil transactions in Nigeria?

It's a very good conversation to have, and discussions have been held with the Ministry of Petroleum Resources. The reality is that gas is an internationally traded commodity. If more investments are desired, this needs to be considered when discussing foreign exchange impacts. Most gas production is associated gas, which exists because of investment in crude oil. Currently, there is very little investment in non-associated gas. A policy focused on delinking dollars from gas may impact investment in gas products negatively.

How can the impact of the gas component on tariffs be managed? There are several innovative solutions. Working with the regulator is possible, but it's a very challenging situation. More investment is needed in the entire energy value chain. Creating more bottlenecks for investors will not help, especially if private sector investment is relied upon.

If the government is to take on that investment and then find innovative ways to concession it to the private sector, the government must put money on the table. However, the challenges in securing that funding are well known. The reality is that the government must focus on creating a conducive environment for investments. This is the first step towards achieving stable electricity supply in Nigeria. Non-commercial solutions for commercial problems must be avoided. If more gas is desired but pricing problems are created, who exactly will make that investment?

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Q&A

What are the potential implications of the federal government divesting its 40% stake in the distribution companies to state governments? How might this impact the overall governance, accountability, and performance of these entities?

To commit funds, investors must be confident in their ability to recover and manage the payback period. What we've seen since 2013 is that, for instance, in the DisCo segment, 60% is owned by the private sector, while 40% is owned by the federal government. The truth is that you need significant investments to move things forward.

The government investing in the sector is often through what we call subsidies. Apart from the subsidies that don't go towards maintaining infrastructure, what comes from the government has always been like soft loans to the DisCos. There is NEP (Nigeria Electrification Project) 1, 2, 3, and lots of similar interventions. However, the public perceives that the government is spending so much. So, rather than the 40%, it should be 100%; it should be divested to the private sector fully.

The federal government and even NERC would then have the moral right to challenge private investors to do more. Previously, Dr Yusuf mentioned that both the government and other industry stakeholders have reneged on PAs (performance agreement). The government, being unable to fulfil its obligation, could not discipline the private sector. Those are the issues.

Government divesting its stake will allow everybody to face their own responsibilities. The government has no business doing business. For us to move forwards, let the regulators regulate, and, of course, rekindle corporate governance. All will be well. We need to allow the 40% to be released to the private sector fully. Let's privatise and move on.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Q&A

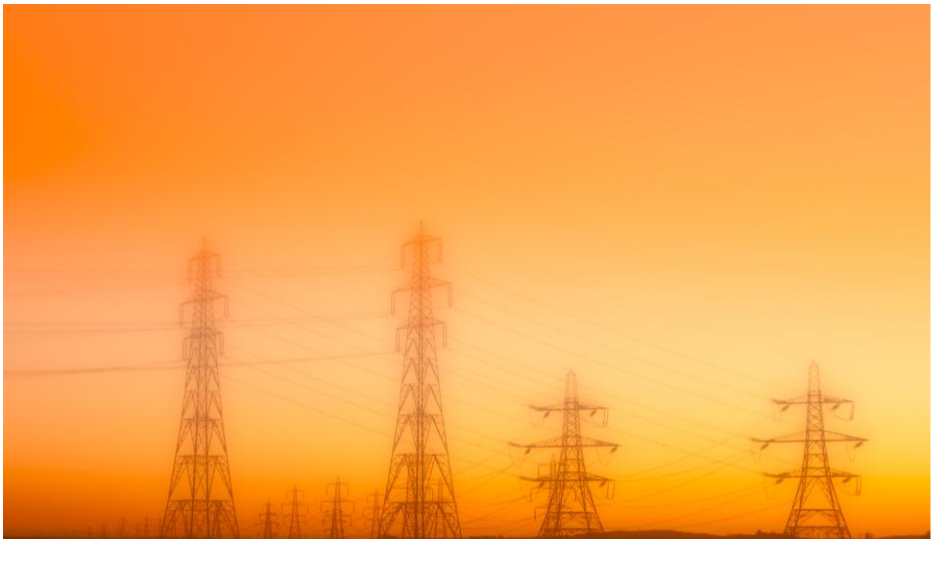
The Electricity Act (EA) was passed in 2023, and NERC was aware of it. Why hasn't NERC asked the DisCos to bifurcate their assets and liabilities across state lines and start reporting accordingly?

A key issue to note is that the reason the Commission is currently regulating distribution is because of the doctrine of 'covering the field'. Ordinarily, by the Constitution and the EA, NERC should not be regulating distribution. To avoid a regulatory lacuna, the field has to be covered.

NERC has communicated in different forums, telling states and DisCOs about the need to break into sub-numbers. It's possible now, but hiring auditors to delineate assets and liabilities across a franchise will cost some money. It is also pertinent to ask, is that the priority of NERC with regards to keeping the sector going? It's not. This is a state problem.

NERC has issued 11 tariff Orders, so should it now start issuing 37 tariff orders? This is operationally off the framework. Any state that wants to do it should empower and direct the licensees to do it. On the Commission's part, it is finally getting to the point where optimisation can be instructed. The first instruction given was for the DisCos to incorporate, which they have done. But the real challenge is when it is operationalised, forcing the delineation of assets, liabilities, and so on. This is finally being achieved.

However, this is being done with hesitation because it would have been preferred that the 11 DisCos operate until the sunset date, when potentially the government sets a timeline for its termination. The issue has lingered, and this is forcing more intervention in distribution than is preferred.



From the audience, Engr. Olalere Odusote, former Honourable Commissioner for Energy and Mineral Resources, Lagos State, asked several questions in response to Dr. Yusuf's comments:

Following up on your comment about state markets, there must be a separation of assets and liabilities across distribution companies covering multiple states. This is crucial. If NERC does not prioritise this, it is neglecting the law and the constitution, hindering market evolution. A NERC Order to distribution companies to report across state lines will be welcome as this will help facilitate states in establishing their own markets.

Without a regulated asset base, MYTO has no foundation. How can a state regulate effectively without this?

This is a question for the Honourable Minister, if you would permit me. You mentioned we are on course for a 2.4 trillion-naira subsidy this year. States that take up their constitutional responsibility to regulate their electricity markets face issues as they cannot immediately change the MYTO and must adhere to it for a while.

Is there a federal plan to support these states with subsidies during the transition? Or will states that start regulating be penalised, while those that do not continue to receive federal subsidies?

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

Thank you very much for that comment, Mr. Olalere. You have raised valid points. However, it is important that we do not misconstrue something not being a priority to being ignored.

The Commission has its own fires to fight. It is expected that the state notifies NERC of the creation of its regulator and the intention to take over. We have seen that with those same states that have issued that notice to us and started effectively playing regulatory roles. There is a state that has issued licences for generation. Ekiti has done it. Many others have created similar frameworks. It would be expected that the state could then mandate the subco under them to extract itself from the national framework.

The challenge is that when that did not happen, it prompted us to issue a regulatory instrument to operationalise the process. As mentioned, if 37 regulatory orders have to be issued, using the least cost (margin) model, it becomes tricky but not impossible.

Regarding the subsidy mentioned, the concept of the Power Consumer Assistance Fund (PCAF) is that it is supposed to be a subsidy mechanism agnostic of regulatory oversight functions. It should be a universal amount given to people deemed to need it. There are concerns about whether the technology and data exist to determine who needs it and who doesn't.

The states have been very clear to the federal government about ensuring that taking over state regulatory functions does not turn into a punitive action. This could mean that because regulation is no longer by the federal government, states that have taken up the regulatory functions lose the opportunity to enjoy a subsidy. The PCAF provides a clean break in that sense.

So, there is a national subsidy for all physical consumers, regardless of where regulation occurs. Now, the state can decide to give additional subsidies because the cost-effective tariff for different states will vary, unlike a universal tariff.

Further comments from Mr. Adedayo Olowoniyi in response to Engr. Olalere Odusote's questions:

The idea is not to be punitive. This is why it's critical for us to understand the issue with banding and tariffs and where we should be heading in terms of Cost Reflective Tariff (CRT). We must ensure the market moves towards fair pricing across all states, and that pricing must eventually be cost-reflective. However, there will still be an agreed level of subsidy where everyone is entitled to some form of support.

We are considering various innovative approaches. Once we achieve deeper meter penetration, states will be able to implement block tariffs, offering a certain quantum of energy at a specific price, which then graduates to a higher price. We can also explore direct subsidies to individuals through different processes, based on the available subsidy.

The idea is not to simply divide the 2.4 trillion Naira of subsidies and allocate it to states to cover their subsidies. There are multiple considerations here: First, we must understand that CRT is the best practice to adopt. Second, tariff pricing in each state will depend on its energy sources and the least-cost model for procuring energy. Finally, the law provides for the Power Consumer Assistance Fund (PCAF), which will be implemented based on an agreed subsidy amount.

Panellists' closing comments on expected outcomes for Nigeria's power sector

Mr. Akin Olagbende

Legal and General Counsel at Geregu Power Plc, representing the CEO, Mr. Akin Akinfemiwa:

For the GenCO sector, revenue stability will come once there is certainty around the tariffs. Once that certainty is provided, it will allow for significantly more investment in the sector. With increased investment in generation, everything else will follow. That should be the main focus.

Mr. Johnson Akinnawo, FCA, CFAN

Acting MD/CEO of Nigerian Bulk Electricity Trading Plc (NBET)

The policy and regulatory cohesion seen under the current leadership of the Minister of Power has brought significant synergy in steering the market in the right direction. The gains expected to accrue in the short to medium term will result in substantial improvements in electricity within the Nigerian Electricity Supply Industry (NESI).

To close, a quote from Robert Collier, a famous author: "Success is the sum of small efforts, repeated day in and day out." The direction is positive, so there is light at the end of the tunnel.

Mr. Deolu Ijose

Managing Director of Benin Electricity Distribution Company

Industry stakeholders are aware of the numerous opportunities in the sector. This is a country of over 200 million people, utilising about 5000 megawatts, so there are opportunities abound. Moreover, with many policies being introduced by the NERC and the federal government, such as transferring regulatory functions to states, opportunities like the creation of Independent Power Producers (IPPs) and embedded generations to boost power supply can be seen.

There are several opportunities across the value chain. For instance, the moderator mentioned consulting services; the panel has discussed gaps in tariffs and how to model them, as well as technical studies and services. Many of these opportunities are happening.

To that extent, it must happen. However, one appeal is this: With the policy side being taken seriously, and being implemented, it's for the public to allow a portion of the cost-reflective tariff to happen. Without it, irrespective of the opportunities seen, no investor will actually move in one dollar or one naira into a market where they cannot recoup their investment or don't know when they will recoup it.

So, that cost-reflective tariff must happen. It's not just a Band A solution. Everyone must embrace it for the market to thrive.

Dr. Yusuf Ali

Commissioner for Planning, Research, and Strategy at the Nigerian Electricity Regulatory Commission (NERC)

The single biggest thing that needs to happen is the tariff issue. Significant funding is the main concern. To achieve that will include the depoliticisation of rate-making, whether at the federal or state level.

Several states have already begun their regulatory functions. At the federal level, it's important to ensure that rate-making for utilities is not seen as a political hot potato, where the government of the day is held responsible. There are fundamental factors that drive these tariffs. For instance, as the Chief Technical Advisor has highlighted, on the issue of gas pricing. If the policy is to moderate the dollar, it becomes academic whether the gas is priced in dollars or not. Depoliticising this process would go a long way.

Regarding the public face of CRT, there needs to be a more deliberate approach to education. Starting from January 2024, NERC Orders included that when a band is paying a certain price, the subsidy per kWh is also mentioned. Nigerians are generally very sceptical of subsidies because of a history of hidden subsidies. For example, nobody knows the landing cost of PMS. Similarly, in the power sector, CRT was not a public issue. One benefit of Band A is that people now know they are paying the right price.

The general concept is that people understand that if Band A is paying a certain price, then Bands B to E will pay around 190 or something similar. Even though people may not be happy, they have a sense of what the right pricing is.

It is essential to always be conscious of communicating the cost of delivering services. This way, when changes are ready to be made, there will be less opposition because people are aware of the full subsidy and cost.

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Conclusion

Conclusion

The discussions at the 2024 roundtable have offered critical insights and actionable recommendations for advancing Nigeria's power sector. Stakeholders across the value chain—including policymakers, regulators, operators, and financiers—can leverage these takeaways to drive progress towards a more robust power sector.

Future outlook and investor confidence

Depoliticising tariff-setting and strengthening public trust

The panellists underscored the importance of removing political interference from the tariff-setting process. For the power sector to attract investment and remain financially viable, tariffs must be determined based on economic fundamentals rather than political considerations. Alongside this, ensuring a consistent and transparent approach at both federal and state levels will be essential to create a fair and sustainable pricing system.

Enhancing public awareness and education

Educating the public about the true cost of electricity, cost-reflective tariffs (CRT), and the role of subsidies emerged as a vital priority. Public scepticism regarding subsidies and tariff increases remains high, often due to a lack of clear communication. Panellists highlighted the need for deliberate efforts to explain the factors driving electricity costs, the rationale behind subsidies, and their impact on tariffs. Transparent communication can help foster public understanding and mitigate opposition to necessary reforms.

Addressing the knowledge gap among consumers was another key focus. Many Nigerians remain unaware of how electricity costs are structured or the factors that influence pricing. Ongoing public education initiatives are critical to ensure acceptance of policy reforms and create a more informed customer base. Providing detailed information about tariffs, including the role of subsidies, in a way that is accessible and relatable will help rebuild trust and support a collaborative approach to sectoral improvements.

Developments and updates

Metering initiatives

Metering remains a significant issue, with a 50% metering gap despite the installation of 3.3 million meters since 2013. To address this, the government has launched several initiatives. The Presidential Metering Initiative (PMI) aims to install 3 to 4 million meters, while the World Bank's DISREP is set to deliver about 3 million meters in two tranches, with the first tranche starting in April. Additionally, the Meter Acquisition Fund (MAF) is providing DisCos with 25 billion naira to supply 200,000 meters. These efforts are crucial for improving revenue recovery and customer satisfaction.

Proposed separation of TCN

The separation of the Transmission Company of Nigeria (TCN) into Transmission Service Provider (TSP) and the Independent System Operator (ISO) is progressing, with the National Council for Privatisation (NCP) working towards an asset transfer order. This move aims to create an inclusive board where all market participants have a say, ensuring the independence and impartiality of the ISO. This change is expected to improve investor confidence and create a more even playing field for all stakeholders.

Power Consumer Assistance Fund

High-level discussions are ongoing to potentially implement the Power Consumer Assistance Fund (PCAF), which would bring certainty to government subsidy obligations and help target subsidies more effectively. This redesign is crucial for managing the financial risks associated with cost-reflective tariffs.

Implementation of the EA and associated costs

The transfer of regulatory functions to the states is seen as a beneficial move, allowing for local solutions to local problems. While there are concerns about the resilience of state structures and the risk of direct interference and capacity, supporting states in implementing these changes can help localise risks and make progress.

For distribution companies (DisCos), this transition involves significant costs, such as asset valuations and revaluations, and separating consolidated accounts into state-specific entities. These costs, estimated to be between one to two billion naira, need to be addressed, possibly as part of the Multi-Year Tariff Order (MYTO). Addressing these financial challenges is crucial for the successful implementation of state-level regulatory functions.

Additionally, the Nigerian Governors' Forum (NGF) should consider pushing for the establishment of Joint Electricity Regulatory Commissions (JERCs) in the National Assembly. If the current legal framework does not allow for this, it can be amended. Establishing JERCs could be very useful in ensuring effective and coordinated regulation across states.

Tariff adjustments and financial implications

State funding for meter acquisition being added to the regulatory asset base has significant implications for tariff adjustments. The loss of scale benefits at state and mini-grid levels impacts the capacity to pay for people in various states, especially those with small electricity markets. This raises the question of whether these states are financially capable of handling this adjustment. The states and DisCos must collaborate to address this issue effectively.

States expressing their intention to start performing regulatory functions must consider the implications, including their capacity to implement the monthly tariff adjustments currently being implemented by NERC.

From the panel discussion, states have two options: adopt a cost-reflective tariff or continue with the current subsidy model. Currently, all states are opting to continue with the MYTO as configured by NERC, but this can only be temporary.

Outlook for power administration

The Nigerian Bulk Electricity Trading (NBET) has been fulfilling its role commendably and is now transforming into an energy exchange. This transformation aims to support market development by facilitating transparent transactions between willing buyers and sellers of electricity, potentially leading to lower electricity prices.

Opportunities within the power sector value chain

The power sector in Nigeria presents numerous opportunities, given the country's large population and relatively low electricity utilisation. With new policies being introduced by the NERC and the federal government, such as the transfer of regulatory functions to states, there are opportunities for the creation of independent power producers (IPPs) and embedded generations to boost power supply. Additionally, there are opportunities in consulting services, tariff modelling, and technical studies, which can help address gaps and improve sector performance.

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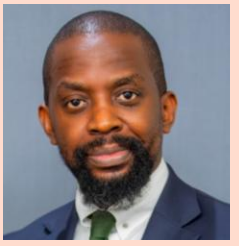

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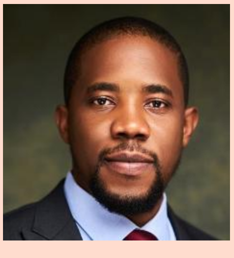

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