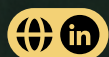




ENERGY FOCUS REPORT

Q4 2024 ROUND UP
AND 2025 OUTLOOK





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OIL AND GAS SECTOR

REGULATORY OUTLOOK FOR NIGERIA'S OIL AND GAS SECTOR IN 2025

As we approach 2025, Nigeria's oil and gas industry faces significant regulatory and strategic shifts designed to rejuvenate production, attract foreign investment, and address long-standing challenges. At the heart of these efforts is the Nigerian Upstream Petroleum Regulatory Commission (NUPRC), which continues to introduce initiatives aimed at enhancing transparency, improving infrastructure, and positioning Nigeria as a competitive player in the global energy market.

One of the most anticipated developments in 2025 is the auctioning of undeveloped oil and gas blocks. This will mark the third licensing round since the Petroleum Industry Act 2021 (PIA). This auction is particularly notable for its emphasis on natural gas exploration, reflecting Nigeria's commitment to diversifying its energy mix and prioritizing cleaner fuel alternatives. The licensing round is expected to unlock dormant resources, drive job creation, and increase energy output, thereby addressing domestic energy needs and boosting Nigeria's export capabilities. It also aligns with the government's broader objectives under the United Nation Sustainable Development Goals, showcasing a commitment to economic and environmental sustainability.

The country's growing focus on natural gas stems from its recognition of the resource as a transitional fuel in the global energy shift. With its vast natural gas reserves, Nigeria is well-positioned to become a key supplier in international markets. However, the NUPRC has warned that domestic gas demand could exceed supply by 2030 if projects do not proceed as planned. To mitigate this risk, the upcoming licensing round will prioritize gas projects to accelerate development and ensure supply meets both domestic and export demands. This strategy aims to solidify Nigeria's role in the evolving global energy landscape, while providing a reliable foundation for local economic growth.

Transparency and accountability remain core pillars of Nigeria's regulatory efforts in 2025. The NUPRC has launched two groundbreaking initiatives: the Advanced Crude Oil and Liquids Accounting System (ACLAS) and the Automated Upstream Measurement and Evaluation Facility (AUMEF). These systems are designed to track crude oil movements comprehensively, ensuring

accurate reporting of production volumes and reducing incidences of oil theft. With oil theft and underreported production historically undermining the sector's potential, these technologies represent a significant step toward restoring confidence among investors and stakeholders. Furthermore, enhanced security measures have been introduced to protect critical oil and gas infrastructure, which has been a recurring target of vandalism and illegal activities.

However, the sector continues to grapple with the challenges of infrastructure deficiencies, which could undermine these regulatory advancements. Weak and outdated infrastructure has long constrained Nigeria's production capacity, limiting the sector's ability to fully leverage its resources. Addressing these bottlenecks will be critical in realizing the benefits of ongoing reforms and sustaining growth in the sector.

Adding complexity to the regulatory landscape is the continued trend of International Oil Companies (IOCs) divesting from onshore assets. While these divestments present opportunities for local operators, they also place additional pressure on the government to ensure that regulatory frameworks support new entrants and maintain production stability.

The regulatory focus for 2025 also emphasizes the need for Nigeria to remain competitive amidst global energy transitions. Major oil companies are increasing investments in renewable energy projects and low-carbon technologies, signaling a shift in priorities that Nigeria must adapt to. Balancing traditional oil and gas operations with the emerging opportunities in renewable energy will require forward-thinking policies and incentives to attract investment in both areas.

In conclusion, Nigeria's oil and gas sector in 2025 is poised for a transformative period, driven by proactive regulatory initiatives and strategic reforms. The focus on natural gas, transparency measures, and new licensing rounds reflects a commitment to revitalize the industry and position it for sustained growth. However, overcoming infrastructure challenges and managing the impact of IOC divestments will be essential to achieving these goals. By fostering an environment conducive to innovation and investment, Nigeria can secure its place as a leading player in the global energy market, while supporting its domestic economic development.



RENEWABLE ENERGY

OUTLOOK ON THE ADOPTION OF THE AFRICAN FORUM FOR UTILITY REGULATORS MINI-GRID TARIFF TOOL IN NIGERIA

The African Forum for Utility Regulators (AFUR) seeks to promote cooperation among utility regulators across Africa to enhance the continent's growth and socioeconomic development. Its mission includes fostering effective utility regulation to advance Africa's infrastructure development.

The Nigerian Electricity Regulatory Commission (“NERC” or the “Commission”) has adopted the Mini-Grid Tariff Tool (the “Tool”) developed by the African Forum for Utility Regulators (AFUR) to promote fair and efficient pricing in the mini-grid sector.

Five countries; Nigeria, Sierra Leone, Ghana, Burkina Faso, and Zimbabwe were selected as early adopters of the Tool after a rigorous evaluation process. Selection criteria included the number of existing and anticipated mini-grid projects, the presence of regulatory frameworks for mini-grids, and the level of private sector involvement.

Mini-grids, small-scale and localized electricity networks, supply power to specific communities and typically operate independently of the national grid. These grids often rely on renewable energy sources like solar, wind, hydro, and biomass, offering a promising solution to Nigeria's persistent power challenges, exacerbated by frequent national grid failures. Under the Nigeria Electrification Project (NEP), the Rural Electrification Agency (REA) has reported the development of approximately 103 mini-grids across the country.

In countries like Germany, transmission system operators are governed by an incentive regulation framework that determines the allowable revenue they can generate from grid fees. This system aims to encourage operators to improve efficiency and reduce operational costs.

The incentive regulation process outlines how permissible revenues are converted by TenneT, one of the transmission system operators, into grid fees reflected on customers' electricity bills. The Federal Network Agency oversees this framework as the regulatory authority.

Grid operators impose a grid charge for transmitting electricity through their networks. TenneT's clients include directly connected industries, generation plants, and distribution system operators

(DSOs). The DSOs, in turn, integrate these charges into their own tariffs and pass the costs on to end customers.

Designed to support the 2023 amendments to the Mini-Grid Regulations, the Tool enables the calculation of cost-reflective tariffs for mini-grid projects. Among its key features is the Portfolio Applications function, which allows developers to register multiple mini-grid sites through a single application. This innovation aims to streamline administrative processes, enhance regulatory oversight, and achieve economies of scale, ultimately lowering tariffs for end users.



POWER

AN ANALYSIS OF THE LAGOS STATE ELECTRICITY LAW IN LIGHT OF THE NERC ORDER ON TRANSFER OF REGULATORY OVERSIGHT TO THE STATES

The Nigerian Electricity Act 2023 (**EA 2023**) redefined the nation's energy governance by granting states authority to establish and regulate their electricity markets. This move marks a significant shift from centralized control, aiming to enhance energy access and efficiency. The Lagos State Electricity Law 2024 (the “**Law**”) emerges as a flagship response, reflecting the ambition of the state to lead in energy sector reforms.

The Lagos State Government complied with the conditions precedent in the EA 2023, duly notified the Nigerian Electricity Regulatory Commission (**NERC** or the “**Commission**”) and requested for the transfer of regulatory oversight of the intrastate electricity market in Lagos State.

Based on the foregoing, the Commission issued an order to transfer regulatory oversight of the electricity market in Lagos State from the Commission to the Lagos State Electricity Regulatory Commission (**LASERC**).

KEY FEATURES OF THE LAGOS STATE ELECTRICITY LAW 2024

1. **LICENSING AND REGULATORY FRAMEWORKS:** The Law explicitly preserves existing license terms for current operators, ensuring market stability during the transition to state-level regulation. Section 10 of the Law requires existing licensees to register with LASERC, which assumes regulatory oversight responsibilities from NERC. The Law also specifies in Section 12 that future licenses will be issued exclusively by LASERC, reflecting Lagos State's commitment to a decentralized electricity market aligned with its unique economic and infrastructural goals.
2. **TARIFF-SETTING MECHANISMS AND CONSUMER PROTECTION:** The Law safeguards investor confidence by maintaining NERC's tariff mechanisms during the transition, as detailed in Section 14. This provision ensures that tariff-setting responsibilities shift to

LASERC only after a transitional phase, preserving continuity and minimizing revenue disruptions. These provisions underline the interplay between NERC's national regulatory framework and LASERC's localized implementation, ensuring consistency, while fostering state-level autonomy.

3. **INCENTIVES FOR RENEWABLE ENERGY AND INNOVATION:** The Law promotes renewable energy through dedicated funds and regulatory support. The Host Community Development Fund mandates power generation companies to allocate 2% of their annual revenue for local development, fostering community engagement and sustainable practices. Provisions also encourage private investments in solar, wind, and other renewable technologies.
4. **DISPUTE RESOLUTION AND COMPLIANCE:** A robust legal framework addresses sector-specific challenges such as meter tampering, electricity theft, and vandalism. The Law empowers LASERC to enforce compliance through preemptive measures and penalties, detailed in Section 18. This mirrors the federal approach under NERC's regulations, where enforcement actions, including penalties and directives, play a critical role in maintaining sector integrity. The Law reflects these practices, but adapts them for state-specific dynamics, emphasizing localized dispute resolution mechanisms to address challenges promptly and effectively within its jurisdiction.

ALIGNMENT WITH THE NERC ORDER AND NATIONAL POLICY FRAMEWORKS

The Law reflects NERC's directive for regulatory devolution, granting states autonomy to oversee electricity markets. This alignment facilitates:

1. **REGULATORY AUTONOMY:** The transfer of licensing, tariff setting, and dispute resolution to LASERC complies with NERC's framework. This change reflects the broader regulatory overhaul introduced by the EA 2023, which mandates the devolution of regulatory oversight to states. By adopting NERC's existing rules during transitional periods, Lagos ensures stability and minimizes disruptions for market participants.
2. **ADDRESSING REGULATORY OVERLAPS:** Despite its merits, the Law must navigate jurisdictional overlaps with federal agencies, particularly in areas like cross-border electricity transactions and grid management. For example, under NERC's authority, inter-state energy trading and the operation of the national grid remain regulated at the federal level, to ensure consistency across Nigeria. However, Lagos State's ambition to regulate distribution within its boundaries highlights potential conflicts, such as the licensing of operators whose services may

span both state and federal jurisdictions. Clarifying these boundaries—for instance, through explicit guidelines on the extent of state authority over energy tariffs and dispute resolution—is critical for mitigating conflicts and ensuring seamless market operations.

POTENTIAL IMPACTS ON LAGOS STATE'S ELECTRICITY MARKET

1. **IMPROVED ENERGY ACCESS AND RELIABILITY:** Localized governance allows Lagos to tailor solutions to its unique energy demands, addressing inefficiencies and expanding access to underserved areas. For example, provisions in Section 14 of the Law encourage the use of mini-grids and embedded generation to reach areas beyond the reach of the national grid. By addressing these structural deficiencies, the Law seeks to improve reliability, reduce energy costs, and enhance overall quality of service for Lagos residents.
2. **ATTRACTING PRIVATE-SECTOR INVESTMENTS:** Clear regulatory frameworks and incentives for renewable energy create an enabling environment for private capital. Provisions for exclusive licenses in underserved regions further enhance investor confidence.
3. **ECONOMIC DEVELOPMENT:** Reliable electricity supply underpins economic growth by supporting industries, small businesses, and technological innovation, positioning Lagos State as a hub for energy-driven development.

CHALLENGES TO IMPLEMENTATION

1. **REGULATORY AND INSTITUTIONAL CAPACITY GAPS:** Establishing and operationalizing LASERC requires substantial investment in human and technical resources, which poses a significant challenge given Nigeria's history of underfunded regulatory institutions. There is an urgent need to develop technological capabilities for monitoring distribution networks and implementing innovative solutions like smart grids. Without these advancements, LASERC may struggle to address the state's persistent energy challenges, such as high system losses and unreliable supply.
2. **COORDINATION WITH FEDERAL POLICIES:** Lagos State must collaborate with federal authorities to address overlapping mandates, particularly in transmission and generation sectors that remain federally regulated. For example, the operation and maintenance of the national grid fall under the purview of the Transmission Company of Nigeria (TCN), which is federally controlled. This means that any state-level project requiring grid connectivity must align with TCN's protocols, potentially leading to delays or conflicting priorities.

An additional layer of complexity arises in the licensing of operators whose services cross state borders. For instance, an embedded generation company supplying power to both Lagos and neighboring Ogun State may face dual regulatory requirements unless clearly delineated by NERC guidelines. The Law attempts to mitigate these challenges by establishing the LASERC to handle intra-state matters, but ongoing dialogue with federal agencies will be critical to avoiding jurisdictional conflicts and ensuring a cohesive energy strategy.

RECOMMENDATIONS FOR A SUCCESSFUL STATE ELECTRICITY MARKET

1. **ENCOURAGING PUBLIC-PRIVATE PARTNERSHIPS:** Public-Private Partnerships (PPPs) are vital for stimulating investment and ensuring the growth of sustainable energy infrastructure. In Lagos State, leveraging PPPs can accelerate the development of renewable energy projects, especially in off-grid areas or underserved regions, where private sector participation can bring efficiency and capital inflow.
2. **INNOVATIVE FINANCING MODELS:** To attract global investors and accelerate the financing of renewable energy projects in Lagos State, the adoption of innovative financing models like green bonds and blended finance is essential. The State Regulator could issue green bonds to raise capital specifically for financing renewable energy projects, such as wind or solar farms. These bonds could be used to fund the expansion of grid infrastructure or the implementation of large-scale solar installations across government buildings and public spaces.
3. **CAPACITY DEVELOPMENT:** A successful transition to a sustainable electricity market requires a workforce that is well-versed in new technologies and regulatory compliance. Capacity development is crucial for both government officials and industry stakeholders to understand and implement renewable energy policies effectively. LASERC could partner with universities or international organizations to set up technical training programs.

CONCLUSION

The Lagos State Electricity Law 2024 represents a landmark effort to localize energy governance within Nigeria's decentralized framework. The law positions Lagos State to lead in energy reforms, fostering innovation, investment, and sustainable development. However, addressing implementation challenges through strategic planning and stakeholder collaboration is critical to unlocking the full potential of the Law.

AN ANALYSIS OF THE NIGERIAN ELECTRICITY REGULATORY COMMISSION'S Q2 2024 REPORT

This report presents a comparative analysis of key performance indicators Quarter 1 and Quarter 2 of 2024. The analysis aims to identify trends, assess progress towards goals, and pinpoint areas for improvement.

AVERAGE AVAILABLE GENERATING CAPACITY

The average available generating capacity in Q2 was 4,395.77 MW. However, excluding the contribution of the Zungeru hydro plant, the capacity decreased by 5.28%, from 4,249.10 MW in Q1 to 4,024.81 MW in Q2. This decline underscores the challenges in maintaining consistent power generation across existing facilities.

These figures highlight the critical need for operational improvements in the electricity sector to stabilize and enhance generation capacity, ensuring a more reliable power supply for the nation.

A) STATE OF ELECTRICITY TRANSMISSION

FREQUENCY

In the second quarter of 2024, the system frequency of the national grid often operated outside the prescribed limits for stable performance. The average daily lower frequency was recorded at 49.13 Hz, while the average daily upper frequency reached 50.64 Hz. Both figures fell outside the normal operating range of 49.75 Hz to 50.25 Hz; but remained within the broader stress limits of 48.75 Hz to 51.25 Hz.

This deviation from the prescribed operating range indicates periodic imbalances between electricity supply and demand, which can affect grid stability, and the quality of power delivered to consumers. Maintaining system frequency within regulatory limits is critical to ensure the seamless operation of grid-connected equipment and to prevent strain on power infrastructure.

SYSTEM VOLTAGE

Voltage performance demonstrated notable deviations from the prescribed regulatory limit of 313.50 kV to 346.50 kV. These values reflect a grid under stress, as voltages outside the acceptable range can lead to inefficiencies, equipment damage, and challenges in maintaining consistent power supply.

The observed voltage fluctuations underline the need for better grid infrastructure management and

investment in technology to improve voltage control mechanisms. Strengthening reactive power compensation and maintaining a balanced load across the grid are essential to prevent voltage instability.

B.) STATE OF ELECTRICITY MARKET AND DISTRIBUTION

AVERAGE ENERGY OFF-TAKE

The average energy off-take by Distribution Companies (DisCos) at trading points during Q2 2024 was 3,165.93 MWh/h. This reflects a 3.59% decrease compared to the 3,283.87 MWh/h recorded in Q1. Despite this drop, the cumulative off-take performance of the DisCos improved significantly, reaching 99.29% (a 6.94 percentage point increase from the 92.35% reported in the first quarter). This improvement highlights enhanced coordination and performance by the DisCos in managing energy distribution.

BILLING EFFICIENCY

Billing efficiency during the quarter stood at 82.34%, marking a 1.89 percentage point increase from 80.45% in Q1. Billing efficiency measures the proportion of energy supplied to DisCos that is accurately billed to customers. The improvement reflects progress in reducing energy theft, better metering, and more effective billing processes, contributing to greater financial sustainability in the sector.

AGGREGATE TECHNICAL, COMMERCIAL, AND COLLECTION (ATC&C) LOSSES

ATC&C losses for Q2 were recorded at 34.70%, a slight reduction of 1.66 percentage points from the 36.36% reported in Q1. However, the current ATC&C loss level remains significantly higher than the allowed aggregate efficient loss target of 24.73% used in the computation of tariffs under the Multi-Year Tariff Order (MYTO).

REMITTANCE PERFORMANCE

The remittance performance of DisCos in Q2 2024 showed a decline, with DisCos remitting 79.76% of their obligations, compared to 96.93% in Q1. This represents a 17.17 percentage point drop and reflects challenges in meeting financial commitments to upstream stakeholders. The reduced remittance performance threatens the liquidity of the sector and underscores the need for improved revenue collection strategies.

REMITTANCE PERFORMANCE BY OTHER OFF-TAKERS

Other off-takers, including international and domestic bilateral customers, exhibited mixed remittance performances during the quarter.

International Bilateral Customers: Payments made by the four international customers served by Generation Companies totaled USD9.81 million, falling short of the USD15.60 million invoices issued by the market operator.

Domestic Bilateral Customers: Domestic bilateral customers paid N1,295.90 million, against cumulative invoices of N1,991.30 million.

Additionally, there were efforts to settle outstanding market operator invoices in Q2. International bilateral customers remitted USD16.65 million toward past dues, while domestic bilateral customers cleared N1,309.97 million of past dues.

CONCLUSION

The current quarter demonstrates a relative improvement over the previous quarter across several key metrics. However, these gains are not uniform, and continued focus on improvement is crucial for sustained and substantial progress.



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