PwC's Annual Power & Utilities Roundtable 2025

Priority actions for the successful evolution of Nigeria's multi-tier electricity market

April 2026

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Foreword

Two years into the implementation of the Electricity Act 2023, Nigeria's power sector reform is now being tested under real market conditions. Recent tariff actions by some states indicate that sub-national electricity markets are becoming active and are shaping the outcomes for operators, consumers, and the wider economy.

Against this backdrop, PwC convened its 2025 Annual Power & Utilities Roundtable on 27 November 2025 under the theme "Nigeria's multi-tier electricity market: Imperatives for successful evolution." Discussions with representatives of federal and state institutions, utilities and financiers reflected a sector adjusting to decentralisation, commercialisation and the pursuit of financial sustainability, as states assume regulatory authority at various stages of readiness.

While new licensing, financing and operating models are emerging, long-standing structural constraints continue to shape reform outcomes. Liquidity pressures within the distribution segment persist. Subsidy structures remain in transition. Metering gaps and ageing infrastructure continue to affect service delivery and revenue assurance. In the renewable energy space, the main constraint to scale is not resource availability, but limited access to early-stage project development finance and bankable investment structures.

A key message from our roundtable was that the next phase of reform will depend on execution discipline and collaboration. Stakeholders emphasised the need for clearer federal and state regulatory alignment, stronger cooperation between regulators and utilities, faster metering and network rehabilitation, credible tariff frameworks, and more effective mechanisms to mobilise private capital across distribution, transmission and renewable energy.

As Nigeria's power sector adapts to the evolving multi-tier market, industry players must also respond to broader global shifts. Climate change, artificial intelligence (AI) and geopolitics are reshaping how electricity is generated, financed, and consumed. Failure to adapt risks leaving Nigeria's power market uncompetitive in a rapidly changing global energy landscape.

This report distils the policy direction articulated by the Honourable Minister of Power, and the market insights shared by senior leaders from state government, distribution company, rural electrification agency, and a multilateral financial institution. The discussions at our roundtable reaffirmed that the success of Nigeria's multi-tier electricity market will depend on sustained collaboration, disciplined execution and coordinated action across the entire electricity value chain.

Introduction

The Electricity Act 2023 represents the most significant change to Nigeria's power sector architecture since the unbundling of the former Power Holding Company of Nigeria(PHCN). For more than six decades, electricity supply, regulation and sector planning were largely centralised under federal institutions, including the Electricity Corporation of Nigeria, the National Electric Power Authority (NEPA) and later the Power Holding Company of Nigeria. Despite several reform efforts, this centralised structure did not deliver reliable electricity at scale across a federation of over 200 million people and 36 states with differing economic conditions and infrastructure needs. The Electricity Act 2023 responds to these limitations by allowing states to establish, regulate and operate electricity markets within their jurisdictions, placing decentralisation at the centre of sector reform.

Despite several reform efforts, this centralised structure did not deliver reliable electricity at scale across a federation of over 200 million people and 36 states with differing economic conditions and infrastructure needs.

This shift reflects a growing recognition that Nigeria's power sector challenges cannot be resolved through the federal government's actions alone. It brings decision making closer to demand centres and local market conditions. The framework places greater emphasis on locally responsive markets, stronger execution capacity at sub-national level, and clearer accountability for performance. It also aims to mobilise private capital through more transparent pricing and cost-reflective tariffs. Together, these changes create a new multi-tier regulatory market. The central issue is how effectively federal and state institutions can translate this structure into sustained investment, operational discipline and improved service delivery.

Experience from other economies shows that reliable electricity is a foundation for long-term economic growth. In countries such as Singapore, South Korea, China and India, sustained investment in power infrastructure supported industrial policy, urban development, and productivity. In each case, electricity systems expanded alongside economic ambition. Nigeria's reform agenda seeks to create similar institutional conditions, following decades in which a highly centralised system failed to keep pace with economic expansion and rising demand.

Nigeria is now moving from a single national electricity market to a multi-tier system where federal and sub-national institutions share responsibility for regulation and outcomes. This phase of reform presents practical challenges. It requires clear allocation of regulatory authority and effective coordination between institutions. It also depends on sustained investment across generation, transmission and distribution. Legacy debts and market weaknesses inherited from the former system must be addressed.

Where these elements are misaligned, decentralisation can weaken different aspects of the value chain rather than improve performance.

These pressures are already visible in implementation. State electricity regulatory commissions are emerging at different stages of institutional readiness. States are beginning to exercise tariff-setting and market oversight functions within their jurisdictions, in line with the Act. Utilities are adjusting to new regulatory requirements, interfacing with multiple stakeholders. Financiers are reassessing risk allocation, cash-flow certainty and governance arrangements under decentralised market structures. At the same time, persistent structural constraints continue to influence outcomes. These include liquidity stress in the distribution value chain, incomplete metering, subsidy misalignment and ageing infrastructure.

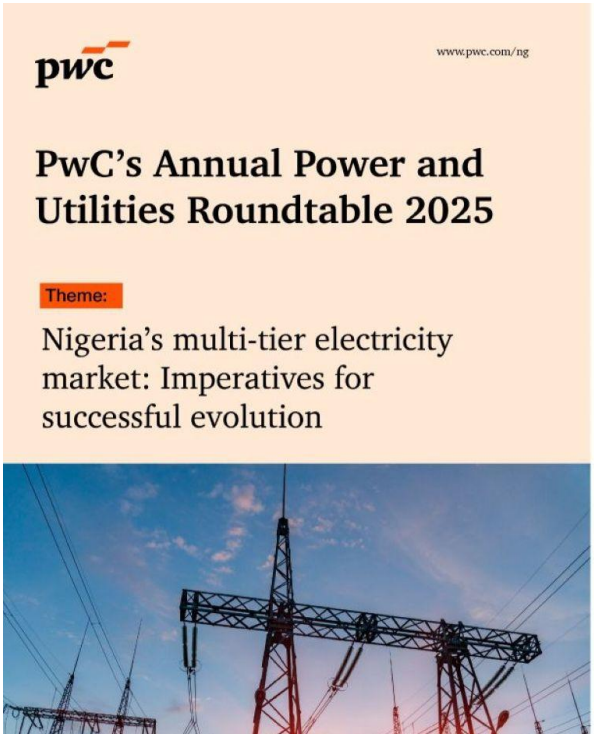
This publication analyses the insights shared at PwC's 2025 Annual Power & Utilities Roundtable by representatives from the federal and state governments, a utility, electricity access agency, and financing institution. Drawing on these perspectives, it examines the market signals emerging from early implementation and what they reveal about the direction and pace of reform. The report focuses on the practical conditions required for decentralisation to deliver more reliable service, stronger financial sustainability and better coordination across the sector.

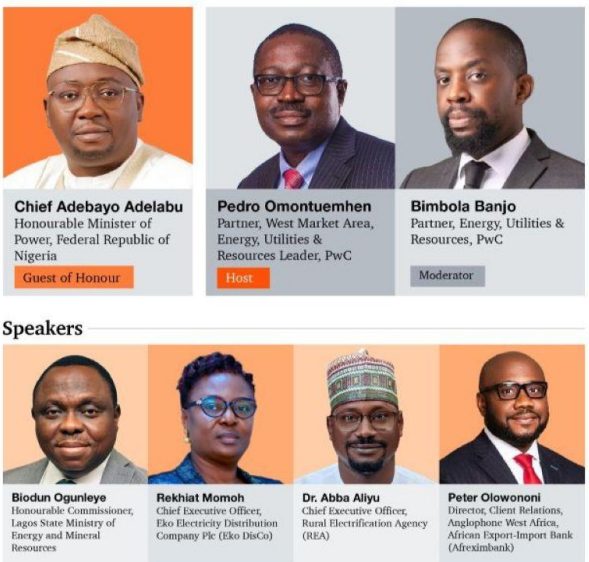
Accordingly, the report assesses how the Electricity Act 2023 is being implemented in practice. It examines the constraints shaping early outcomes and the priority actions identified by stakeholders. These actions will determine whether Nigeria's multi-tier electricity market can evolve into a stable, investable and well-coordinated system.

The evolving Nigeria's multi-tier electricity market

Early signals from implementation of the Electricity Act 2023

The 2025 Annual Power & Utilities Roundtable convened senior players from across Nigeria's electricity value chain. Participants represented federal and state government, electricity distribution, off-grid electrification, and project finance. They included the Honourable Minister of Power, Chief Adebayo Adelabu; the Honourable Commissioner for Energy and Mineral Resources, Lagos State, Mr. Biodun Ogunleye; Mrs. Rekhiat Momoh, Chief Executive Officer of Eko Electricity Distribution Company Plc; Dr. Abba Abubakar Aliyu, Chief Executive Officer of the Rural Electrification Agency (REA); and Mr. Peter Olowononi, Director, Client Relations, Anglophone West Africa, African Export–Import Bank (Afreximbank).





Insights shared at the roundtable show early, observable changes in how Nigeria's electricity market is evolving under the Electricity Act 2023. These changes are evident in how projects are initiated, how institutions coordinate responsibilities, and how investors assess risk within a decentralised market structure.

One clear signal relates to the evolving role of the Federal Government within the multi-tier framework. Contributions from the Honourable Minister of Power highlighted a federal focus on managing transition risks and sustaining the sector performance as decentralisation progresses. Since the passage of the Electricity Act 2023, multiple states have begun activating electricity market functions at different stages of readiness. Federal attention is therefore concentrating on functions that remain national in scope, including transmission reliability, grid stability, large-scale metering deployment, human capital development, and subsidy management. The Minister also noted that overlapping regulatory and reporting arrangements, especially for distribution companies operating across multiple states, are an expected feature of the transition and require active management.

Since the passage of the Electricity Act 2023, multiple states have begun activating electricity market functions at different stages of readiness. Federal attention is therefore concentrating on functions that remain national in scope, including transmission reliability, grid stability, large-scale metering deployment, human capital development, and subsidy management.

At the sub-national level, the Act is changing how states approach electricity governance. State-level contributions pointed to a shift towards greater ownership of electricity market development within state jurisdictions. Several states have enacted electricity laws, established regulatory commissions and begun oversight of intra-state electricity activities. Lagos State, presented as a practical example, described a phased regulatory approach focused on service continuity, accelerated metering and investor confidence. At the same time, regulatory capacity is being strengthened in stages. Electricity planning is increasingly embedded in state development priorities, infrastructure programmes and fiscal planning processes, signalling a more deliberate and sustained approach to market oversight.

Discussions also highlighted that states are progressing at different stages of readiness. Differences in regulatory experience, technical capacity, data availability and fiscal space mean that states are moving at different speeds. Participants framed this variation as a practical outcome of decentralisation within a diverse federation, rather than a weakness of the Electricity Act 2023. The discussions underscored the need for structured coordination to manage regulatory boundaries, maintain consistent technical standards and provide clarity during transition periods, particularly where federal and state responsibilities intersect.

Distribution companies are operating at the centre of these changes. Insights from Eko Electricity Distribution Company and the Honourable Minister indicated that DisCos in states exercising regulatory authority are increasingly navigating dual or transitioning oversight arrangements. These arrangements require changes to compliance systems, reporting processes and performance monitoring, especially in metering, service quality and loss reduction. At the same time, these demands sit alongside persistent financial pressures within the distribution segment. Legacy acquisition debt, liquidity constraints and revenue recovery challenges continue to limit reinvestment. The discussions made clear that while decentralisation reshapes regulatory relationships, it does not by itself resolve the financial weaknesses facing distribution companies.

From an electricity access and off-grid perspective, the roundtable pointed to a shift in how electrification initiatives are initiated and governed. Contributions from the Managing Director of Nigeria's Rural Electrification Agency highlighted growing state ownership of access planning. Sub-national governments are integrating electrification targets into development strategies and budget frameworks. Examples shared included states taking responsibility for renewable energy training facilities and restructuring surplus generation capacity to supply public infrastructure through commercially structured arrangements. In this context, the Federal Government is using the National Energy Support Implementation Plan (NESIP) to align federal programmes, state priorities and private-sector participation within a more decentralised electricity market.

Financing perspectives provided further evidence of change. Discussions indicated that investor engagement is increasingly shaped by the clarity and structure of sub-national electricity strategies, rather than national market conditions alone. States are approaching financiers with integrated propositions that link generation, distribution and demand within defined geographic areas. Investors are assessing projects on a case-by-case basis, with bankability driven by regulatory clarity, tariff credibility and cash-flow visibility. While concerns remain about the credit profile of distribution companies, clearer demand definition and offtake arrangements at the state level were cited as improving investment confidence and supporting more targeted risk assessment.

Taken together, these insights show that the Electricity Act 2023 is beginning to influence how Nigeria's electricity market operates in practice. Federal institutions are focusing on coordination and sector performance. States are taking more active roles in market development. Utilities are adjusting to more complex accountability structures. Financiers are recalibrating risk assessment around smaller, more clearly defined market units. At the same time, longstanding structural constraints, particularly within the distribution segment, continue to shape outcomes and limit the pace of improvement.

The early phase of implementation highlights a central challenge for the next stage of reform. Changes in how states initiate projects, how federal institutions stabilise the system, and how investors assess risk must now be aligned across the market. How federal and state institutions respond to these early signals will shape whether Nigeria's multi-tier electricity market moves from transition to consolidation.

Federal Government's role in a multi-tier market

Policy focus, market stability and intergovernmental alignment

As Nigeria's electricity market moves into a multi-tier structure, the Federal Government's reform focus is increasingly shaped by the need to keep the national electricity market functioning while states activate their own markets. Contributions from the Honourable Minister of Power at the roundtable made clear that decentralisation under the Electricity Act 2023 is now the operating framework. Federal interventions are therefore directed at protecting the national infrastructure, rules and institutions that support both federal and state electricity markets.

In his update, the Honourable Minister of Power noted that more than 15 states are now at different stages of activating electricity markets under the Act. This variation in readiness provides early evidence that decentralisation is producing differentiated regulatory and commercial conditions across the federation. At the same time, federal attention is concentrating on areas where failure would affect the entire market, regardless of state boundaries. These include transmission performance, grid reliability, large-scale metering deployment, subsidy exposure, and technical capacity across the sector. Together, these priorities show where reform pressure is currently being applied at the centre.

States with local electricity laws (aligned with EA 2023)

S/N	State	Status of local law	Regulatory oversight by NERC transferred?
1	Enugu	Passed state electricity law	Yes (transitioned)
2	Ekiti	Passed state electricity law	Yes (transitioned)
3	Ondo	Passed state electricity law	Yes (transitioned)
4	Imo	Passed state electricity law	Yes (transitioned)
5	Oyo	Passed state electricity law	Yes (transitioned)
6	Edo	Passed state electricity law	Yes (transitioned)

7	Kogi	Passed state electricity law	Yes (transitioned)
8	Lagos	Passed state electricity law	Yes (transfer underway/completed)
9	Ogun	Passed state electricity law	Yes (transfer underway/completed)
10	Niger	Passed state electricity law	Yes (transfer underway/completed)
11	Plateau	Passed state electricity law	Yes (transfer scheduled)
12	Ebonyi	Passed state electricity law	Not yet transferred
13	Taraba	Passed state electricity law	Not yet transferred
14	Delta	Passed state electricity law	Not yet transferred
15	Nasarawa	Passed state electricity law	Not yet transferred
16	Jigawa	Passed state electricity law	Not yet transferred
17	Bayelsa	Passed state electricity law	Not yet transferred
18	Abia	Passed state electricity law	Not yet transferred
19	Akwa Ibom	Passed state electricity law	Not yet transferred

Figure 1: Table showing a list of states with local electricity laws aligned to EA 2023, and NERC oversight transfer

A number of national performance indicators presented by the Minister show measurable progress. Sector revenues increased from approximately ₦1 trillion in 2023 to about ₦1.7 trillion in 2024, representing an increase of about 70 percent, with projections of ₦2.3 trillion by the end of 2025. Installed generation capacity has risen to about 14 gigawatts, and a historic peak generation of 5,801.44 megawatts was recorded in 2025. Grid reliability has also improved, with grid collapse incidents falling sharply compared to previous years. These figures, cited by the Minister, suggest improvements in revenue collection and system operations, even as deeper structural challenges remain.

Metering reform was highlighted as a central driver of market stability. The Minister stressed that accurate metering is essential for billing accuracy, revenue collection and consumer confidence, particularly within the distribution segment. Federal programmes continue to anchor scale through the Presidential Metering Initiative (PMI) and the World Bank–supported Distribution Sector Recovery Programme (DISREP). Together, these initiatives target the deployment of more than 13 million meters over the medium term, addressing a long-standing metering gap that has weakened collections and distorted customer trust.

A key milestone cited at the roundtable was Nigeria's recent synchronisation with the West African Power Pool, which strengthens prospects for cross-border electricity trade and reinforces the need for strong national oversight in a decentralised market.

Fiscal exposure and market liquidity were discussed as closely linked risks. The Minister noted that government subsidy obligations have declined by an estimated ₦700 billion, reflecting recent tariff adjustments and a gradual shift in consumer spending away from diesel and petrol generation toward grid electricity. At the same time, he acknowledged that subsidy arrangements are still being adjusted to fit the new market structure. Where tariffs do not fully reflect costs, or where subsidy funding is uncertain, liquidity pressure persists, especially within distribution companies. Federal focus in this area is therefore aimed at reducing fiscal risk while supporting a gradual transition toward pricing frameworks that are more financially sustainable.

Transmission and grid operations remain core federal responsibilities under the Electricity Act 2023, exercised through institutions such as the Transmission Company of Nigeria and national system operators. As state electricity markets expand and embedded generation grows, the reliability of the national grid becomes more, not less, important. The Federal Government is prioritising transmission rehabilitation, system operations and regional integration. A key milestone cited at the roundtable was Nigeria's recent synchronisation with the West African Power Pool, which strengthens prospects for cross-border electricity trade and reinforces the need for strong national oversight in a decentralised market.

Skills shortages were identified as a practical constraint on reform delivery. The Minister highlighted gaps in engineering, system operations and certified technical installation capacity, particularly as responsibilities extend to the state level. Collaboration with the National Power Training Institute of Nigeria is being expanded to address these gaps, including a programme to train 100 power-sector engineers each year, with a longer-term target of at least 1,200 highly skilled engineers over ten years. Similar shortages were cited as slowing meter installation, where the availability of certified installers has not matched procurement volumes. These initiatives reflect recognition that regulatory reform must be supported by sustained investment in people and operational capability.

Discussions also pointed to growing intergovernmental alignment challenges as the multi-tier market takes shape. As states assume authority over intra-state electricity activities, overlaps with federal responsibilities are becoming more visible. The Minister described these frictions as a normal phase of reform, requiring clearer definition of regulatory roles, transitional reporting arrangements and dispute-resolution processes. Without such clarity, unresolved issues around subsidies, tariff assumptions, levies and regulatory authority could create uncertainty for investors and distort emerging state electricity markets.

Taken together, federal reform priorities are now clearly concentrated on protecting market stability and reducing risk where failure would have the widest impact. These priorities include revenue collection, grid reliability, subsidy management, skills development and alignment between federal and state institutions. How effectively these issues are managed will shape the environment in which state electricity markets develop, distribution-sector challenges are addressed, and private capital engages in the next phase of Nigeria's electricity reform.

Sub-national electricity markets

Regulatory execution, institutional readiness and collaboration

The Electricity Act 2023 gives state governments legal authority to regulate electricity activities within their jurisdictions. These powers include licensing, tariff setting, consumer protection and oversight of intra-state electricity operations. This section examines how states are beginning to exercise these responsibilities in practice, based on insights from the roundtable discussions and the presentation and insights by the Honourable Commissioner for Energy and Mineral Resources, Lagos State.

Contributions from federal and state officials indicated that most states are approaching implementation in stages. Early efforts are focused on maintaining service stability, engaging utilities and building internal regulatory capacity. This reflects an understanding that legal authority alone does not translate into effective regulation without reliable data, skilled personnel and workable enforcement processes.

A common initial step has been the passage of state electricity laws and the establishment of electricity regulatory commissions. Several states are at different stages of activating electricity markets under the Act. While some have moved into active regulatory oversight, others remain in the earlier phases of institutional setup. The experience of early movers therefore provides practical reference points for states yet to operationalise their frameworks.

Lagos State offered a concrete example of phased implementation. In his presentation, the state's Honourable Commissioner for Energy and Mineral Resources described an approach centred on service continuity, accelerated metering and investor confidence. Lagos has adopted a non-punitive transition period, with emphasis on engagement and joint problem-solving with utilities while regulatory systems and staff capacity are developed. This phased approach is intended to preserve operational stability while regulatory credibility is built over time.

The Commissioner also noted that electricity planning in Lagos is being embedded within wider state development priorities. Power supply is treated as an enabler of economic activity rather than a standalone technical issue.

This has linked electricity regulation more closely to infrastructure planning, investment decisions and fiscal management at the state level.

At the same time, the discussions highlighted significant differences in institutional readiness across states. Variations in regulatory experience, technical expertise, data availability and fiscal capacity are shaping different implementation paths. While such variation is expected in a decentralised system, it carries implications for coordination, investor confidence and the pace of market development.

Several participants, including the Honourable Minister of Power, highlighted the need for clear regulatory boundaries as state-level regulation expands. Areas of overlap with federal institutions are becoming more apparent, particularly in tariff assumptions, technical standards, reporting requirements and subsidy treatment. Without alignment in these areas, uncertainty could slow execution and weaken confidence in emerging state electricity markets.

Distribution companies were identified as key players in this transition. As noted by both the Honourable Minister and the Chief Executive Officer of Eko Electricity Distribution Company, DisCos operating across multiple states are adjusting to overlapping or evolving regulatory expectations, including differences in reporting and compliance requirements. Where states prioritise engagement during the transition, utilities appear better positioned to maintain service stability while regulatory capacity is strengthened.

Data availability also emerged as a critical enabler of effective sub-national regulation. Participants observed that states with clearer information on demand patterns, network condition and customer profiles are better able to design tariffs, monitor performance and engage investors. Where data gaps persist, regulatory decisions become harder to justify and enforce.

The discussions at the roundtable indicate that sub-national electricity markets are developing through phased execution rather than uniform rollout. As states move from passing enabling laws to active regulation, differences in institutional capacity and execution are becoming clearer. How effectively states build regulatory capability, apply rules consistently and align with federal frameworks will shape how these markets mature. These execution realities are already influencing how distribution companies, off-grid providers and financiers engage with Nigeria's evolving multi-tier electricity market.

Distribution companies in a multi-tier electricity market

Liquidity constraints, legacy debt and operational realities

Distribution companies are responsible for delivering electricity to customers and collecting revenue across the power value chain. Their operating experience provides a view of how the Electricity Act 2023 is affecting market outcomes. Insights from the Chief Executive Officer of Eko Electricity Distribution Company Plc, reinforced by contributions from the Honourable Minister of Power and the Lagos State Commissioner, highlighted the pressures facing distribution companies as the market transitions to a multi-tier structure.

The financial position of the distribution segment remains constrained. Mrs Rekhiat Momoh noted that although Nigeria's installed generation capacity is about 13,000 megawatts, available capacity typically ranges between 4,000 and 5,000 megawatts. Gas supply constraints, network limitations and system inefficiencies reduce the volume of energy delivered to distribution networks. This limits revenue available to distribution companies, even before losses and collection challenges are considered.

Losses within distribution remain high. Mrs Momoh stated that industry-wide Aggregate Technical, Commercial and Collection losses average between 34 and 35 percent. Eko DisCo has reduced its losses to about 22 percent, but most operators continue to experience significant revenue leakage. These losses are driven by ageing network assets, incomplete metering and long-standing collection challenges that predate decentralisation.

Collection efficiency further constrains cash flow. Across the industry, average collection efficiency is about 70 percent, meaning that roughly one-third of billed revenue is not recovered each month. At Eko DisCo, outstanding receivables exceed ₦183 billion. This includes ₦66 billion owed by government Ministries, Departments and Agencies, ₦96 billion from residential customers and ₦20 billion from commercial and industrial users. Mrs Momoh explained that these receivables weaken liquidity and delay network investment.

Legacy debt poses an ongoing challenge for the segment with industry-wide liabilities running into trillions of naira. While Eko DisCo was reported to have cleared its acquisition loan, many other distribution companies have not. This limits access to new financing and increases insolvency risk.

High interest rates further restrict the ability of operators to fund long-term infrastructure rehabilitation.

The condition of critical infrastructure remains a major operational challenge. Mrs Momoh highlighted ageing and overloaded transformers, deteriorated feeders and obsolete network assets as key drivers of technical losses. Replacing these assets requires significant capital, while the long payback period for power investments discourages new funding. Without sustained network investment, further loss reduction becomes difficult.

Metering emerged as a central issue linking revenue recovery and consumer trust. Mrs Momoh noted that a persistent metering gap has weakened billing accuracy and customer confidence. At Eko DisCo, about 145,000 customers were previously billed on estimated consumption. This gap is being addressed across the industry through the Meter Asset Provider scheme, the Distribution Sector Recovery Programme and the Presidential Metering Initiative. Mrs Momoh reported that over 119,000 meters are expected for deployment, with additional units already arriving.

Tariff design remains closely tied to distribution viability. Mrs Momoh stated that current tariffs are only partially cost-reflective, while subsidy obligations persist. Although recent tariff adjustments have reduced government subsidy exposure, pricing still does not fully cover energy costs, network maintenance and reinvestment needs. This limits the ability of distribution companies to improve service quality without external support.

The Honourable Minister reinforced this point during the panel session. He noted that misalignment between tariffs, subsidies and actual cost structures poses systemic risk, particularly at the distribution level. While decentralisation changes regulatory oversight, it does not remove this risk. Instead, it makes the financial position of distribution companies more visible to state regulators and consumers.

Regulatory transition adds further complexity. As states begin to exercise authority over intra-state electricity activities, distribution companies operating across multiple states face overlapping reporting and compliance requirements. The Minister acknowledged that dual regulatory interfaces are an expected feature of the transition phase and require careful management to avoid service disruption.

DisCos	States Covered	Potential for Dual Reporting
Benin (BEDC)	Delta Edo Ekiti Ondo	Yes
Kaduna (KDEDC)	Kaduna Kebbi Sokoto Zamfara	Yes
Kano (KEDC)	Kano Katsina Jigawa	Yes
Yola (YEDC)	Adamawa Borno Taraba Yobe	Yes
Jos (JEDC)	Bauchi Benue Gombe Plateau	Yes
Abuja (AEDC)	FCT Kogi Nasarawa Niger	Yes
Ibadan (IBEDC)	Kwara Ogun Osun Oyo	Yes
Ikeja (IEDC)	Lagos Ogun	Yes
Eko (EKEDC)	Lagos Ogun	Yes

Port Harcourt (PEDC)	Akwa Ibom Bayelsa Cross River Rivers	Yes
Enugu (EEDC)	Abia Anambra Ebonyi Enugu Imo	Yes

Figure 3: A table showing DisCos with a potential for dual reporting

From the state perspective, the Lagos State Commissioner described a phased and non-punitive regulatory approach during the transition. This reflects a deliberate decision to defer strict enforcement actions while utilities adjust to new regulatory arrangements and while state regulatory capacity is still being developed. The approach prioritises engagement, joint problem-solving and gradual enforcement, rather than immediate sanctions for legacy operational gaps. For distribution companies, this provides time to adapt systems and processes without sudden operational shocks that could disrupt service delivery.

The roundtable discussions made clear that decentralisation reshapes regulatory relationships but does not, on its own, resolve distribution sector challenges. Liquidity constraints, legacy debt, metering gaps and ageing infrastructure continue to shape outcomes. Addressing these issues will require coordinated action on tariffs, metering, infrastructure finance and regulatory alignment across federal and state levels.

Scaling renewable energy, off-grid solutions and electricity access

Decentralisation under the Electricity Act 2023 is changing how electricity access initiatives are planned and delivered, particularly outside the national grid. Insights shared by the Managing Director of the Rural Electrification Agency (REA), Dr Abba Abubakar Aliyu, show that states are becoming more active participants in access delivery alongside federal institutions.

Dr Aliyu noted that following the implementation of the Electricity Act 2023, many states no longer approach rural electrification as a programme to be requested from the Federal Government. Instead, they are engaging proactively with the REA based on data availability, project readiness and implementation capacity. This includes presenting demand assessments, identifying priority public facilities and proposing delivery models suited to local conditions.

One visible signal of this shift is the integration of electrification targets into state planning and budgeting processes. According to Dr Aliyu, commissioners and governors are increasingly incorporating electricity access objectives into annual budgets and medium-term development plans. This approach contrasts with earlier project-driven interventions, where access initiatives were often implemented as stand-alone schemes without sustained state ownership or budgetary alignment.

The roundtable discussions also pointed to a change in how access projects are structured. Dr Aliyu described a move away from isolated electrification interventions toward arrangements that link electricity supply to broader public service delivery and economic use. He cited examples where states have taken over renewable energy training facilities originally established under federal programmes. In one instance, a state government assumed control of a renewable energy training centre located within a federal university and partnered with a private training provider to train 500 youths, starting with an initial cohort of 100 trainees.

In another example shared during the session, excess generation capacity from a 12-megawatt renewable installation initially developed to serve education and health institutions was being restructured into a commercial supply arrangement for a state-owned water treatment facility.

Dr Aliyu explained that this approach allows surplus power to support essential public infrastructure while improving asset utilisation and financial sustainability

Taken together, these examples illustrate a shift in how access outcomes are governed. States are increasingly assuming responsibility for assets, operations and performance, rather than acting solely as beneficiaries of federally driven or donor-funded projects. For off-grid and distributed energy solutions, this change creates clearer accountability for long-term operation and maintenance.
As decentralisation advances, the need for coordination across a growing number of actors has become more pronounced. In this context, Dr Aliyu referenced the National Electrification Strategy and Implementation plan (NESIP) as a coordination framework developed to align federal programmes, state priorities and private-sector participation within an expanding off-grid and distributed energy market.

According to Dr Aliyu, NESIP provides a structured readiness assessment for states. This assessment covers policy frameworks, infrastructure, data availability, institutional capacity and investment preparedness. The results are used to guide engagement with states and to sequence interventions under programmes such as the National Electrification Project. In this way, NESIP links federal support to demonstrated state preparedness rather than applying uniform national templates.

The insights shared at the roundtable indicate that decentralisation is reshaping electricity access delivery in practical ways. States are initiating more access projects, taking greater ownership of outcomes and engaging more directly with delivery frameworks.

The use of NESIP also reflects an effort to manage overlap and duplication in the access space. As state governments, development partners and private developers become more active, coordination is needed to avoid inconsistent standards and competing interventions. In this regard, NESIP serves as a reference framework to support orderly market development under a decentralised structure.

The discussions acknowledged that progress in renewable and off-grid access remains uneven across states. Differences in institutional capacity, technical expertise and data quality affect how quickly access initiatives move from planning to execution. These differences were presented as a feature of decentralisation rather than a weakness of the reform framework itself.

The insights shared at the roundtable indicate that decentralisation is reshaping electricity access delivery in practical ways. States are initiating more access projects, taking greater ownership of outcomes and engaging more directly with delivery frameworks. Coordination tools such as NESIP are emerging to manage complexity in a multi-tier market. Whether these early patterns translate into sustained access improvements will depend on planning discipline, coordination across institutions and the ability to attract private participation. These factors also influence how access projects are financed and structured, linking electricity access more closely to broader investment and sustainability considerations.

Financing Nigeria's evolving electricity market

Mobilising investment remains critical to the success of Nigeria's electricity reform. Discussions at the roundtable showed that the shift to a multi-tier market is changing how power projects are structured, evaluated and financed. Insights from Mr Peter Olowononi, Director, Client Relations, Anglophone West Africa, African Export–Import Bank (Afreximbank), indicated that from a financier's perspective, access to capital is not the main constraint facing the sector. He noted that financiers continue to see interest in Nigeria's power market. The primary challenge lies in structuring projects with clear risk allocation, predictable revenue and credible regulatory oversight.

A key change following the implementation of the Electricity Act 2023 is how electricity projects are being structured and presented to financiers. By enabling greater decentralisation and clearer delineation of roles across the electricity value chain, the Act has supported a shift away from broad exposure to the national electricity market. Instead, investors are increasingly assessing smaller, defined opportunities, including state-led electricity initiatives with identifiable demand, contracted offtakers and clearer governance arrangements. These features reduce uncertainty around revenues, regulation and execution, allowing financiers to assess and price risk at the project level rather than across the entire sector.

This shift towards smaller, project-defined electricity investments reflects the practical impact of decentralisation under the Electricity Act 2023. As states begin to define electricity strategies within their jurisdictions, individual projects can be aligned more closely with local demand, revenue sources and operating conditions. Greater clarity around these factors improves investment assessment and allows financing decisions to be more targeted.

However, the discussions made clear that clearer project definition alone is not sufficient. Investors continue to focus on regulatory certainty, tariff credibility and cash-flow security. Where tariffs are not cost-reflective or enforcement frameworks lack clarity, investment decisions are delayed or repriced. Weak revenue collection and fragile financial positions within the distribution segment also influence how risk is assessed.

The Honourable Minister of Power reinforced this perspective during the session. He noted that Nigeria faces a substantial investment gap across generation, transmission and distribution. According to the Minister, the Electricity Act 2023 creates room for states and the private sector to play a larger role in funding the system. However, he stressed that capital will only flow where investors have confidence that their investments can be recovered over time.

From the financier's perspective, state-led electricity strategies are beginning to address this concern. Mr Olowononi explained that projects which link generation, distribution and offtake within defined geographic areas offer clearer revenue visibility. Where demand is anchored by public infrastructure, industrial users or structured offtake arrangements, financing discussions tend to progress more quickly.

At the same time, concerns remain around the financial position of distribution companies. Investors continue to factor in legacy debt, metering gaps and collection performance when assessing projects that depend on distribution networks. Decentralisation improves transparency; however, it also highlights DisCos' financial and operational weaknesses more clearly with the evolution to multi-tier markets.

Overall, the financing signals from the roundtable points to interest in Nigeria's electricity sector. However, investment depends on translating the ongoing reform into bankable projects. The pace at which capital can be mobilised will depend on how effectively regulatory clarity, tariff frameworks and revenue assurance are applied at both federal and state levels.

Aligning action in a multi-tier electricity market

Key priorities for successful evolution

The roundtable discussions show that implementation of the Electricity Act 2023 is now underway and that stakeholders are responding to its effects in real time. As decentralisation advances, areas of strain and dependency across the electricity value chain are becoming more visible. From these signals, a set of priorities emerges that reflect gaps and pressure points requiring attention if the multi-tier market is to function effectively in practice.

I Regulatory clarity and federal and state alignment

One such pressure point is regulatory clarity during transition. As states exercise authority over intra-state electricity activities, overlap with federal institutions is unavoidable. Participants pointed to the need for clear treatment of tariffs, reporting requirements, technical standards and subsidy assumptions during this period. Where transition arrangements are unclear or inconsistent, uncertainty rises for utilities, investors and consumers. Clear boundaries and agreed transition rules provide the foundation on which all other elements of reform depend.

II Stabilising the distribution segment of the value chain

A second pressure point lies in the condition of the distribution segment. Data shared by utilities and reinforced by the Honourable Minister highlighted persistent liquidity stress, legacy debt, metering gaps and ageing infrastructure. These constraints continue to shape service quality, revenue recovery and investor confidence. While decentralisation changes regulatory relationships, it does not resolve these underlying weaknesses. How tariffs, metering, debt and access to long-term finance are addressed in practice remains central to system performance.

III

Metering and data integrity

Metering and data integrity also emerged as system-wide pressure points. Participants consistently linked accurate metering to revenue assurance, consumer trust, tariff setting and investment assessment. Where consumption data is unreliable, billing disputes persist, collections weaken and regulatory decisions become harder to sustain. Improving data integrity is therefore not a technical add-on, but a core requirement for discipline and confidence across the market.

IV

State capacity and execution discipline

State execution capacity represents another area where reform pressure is concentrated. Examples shared at the roundtable, including Lagos State and observations from the Rural Electrification Agency, showed that legal authority alone does not translate into effective regulation. Skills, data systems, institutional processes and phased enforcement all matter. States are progressing at different speeds, reflecting variations in readiness. How these differences are managed will influence service continuity, coordination with federal institutions and the credibility of emerging sub-national markets.

V

Converting reform into bankable projects

A final priority concerns the translating reform into bankable projects. Financing perspectives highlighted that capital is available, but conditional. Investors are responding to projects with defined demand, identifiable offtakers and clear governance arrangements. State-led electricity strategies, structured access projects and clearer risk allocation are beginning to meet these expectations. Where reform remains weakly coordinated or poorly sequenced, financing timelines lengthen and costs rise.

Taken together, these priorities reflect what the electricity system is now demanding. Regulatory boundaries must be clear. Distribution risks must be stabilised. Data integrity must improve. State execution capacity must deepen. Projects must be structured in ways that support investment. In a multi-tier electricity market, progress depends on aligned action across federal and state institutions, utilities, access providers and financiers.

Conclusion

Nigeria's electricity reform has entered a phase where outcomes will be determined by disciplined execution and collaboration. The Electricity Act 2023 has reallocated responsibilities across federal and state institutions and enabled states to play a direct role in electricity market development. The central issue is now how these different players collaborate and how roles are exercised in practice.

Discussions at the PwC's 2025 Annual Power & Utilities Roundtable indicate that stakeholder actions across the value chain are already adjusting to this new structure. Federal institutions are focusing on grid stability, fiscal exposure and national coordination. States are beginning to exercise regulatory and planning authority within their jurisdictions. Distribution companies are operating under evolving oversight while managing persistent financial constraints. Off-grid providers are expanding access initiatives, and financiers are assessing opportunities through smaller, more clearly defined market units.

These developments point to a shared execution challenge. Reform progress will depend on whether actions taken by federal institutions, states, utilities and financiers are mutually reinforcing. Where regulatory boundaries are clear, data is reliable, distribution risks are addressed and projects have defined revenue paths, reform momentum strengthens. Where alignment is weak, decentralisation increases uncertainty rather than confidence.

A multi-tier electricity market does not, by itself, guarantee improved performance. It places higher demands on coordination, discipline and accountability. The pace and durability of reform will be shaped by how consistently institutions manage transition arrangements, address distribution sector constraints and apply rules across jurisdictions.

The next phase of Nigeria's electricity reform will therefore be defined less by policy ambition and more by execution discipline. In a decentralised market, credibility is built through aligned action. How effectively that alignment is achieved will determine whether the reform delivers more reliable electricity, attracts sustained investment and supports long-term economic growth.

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