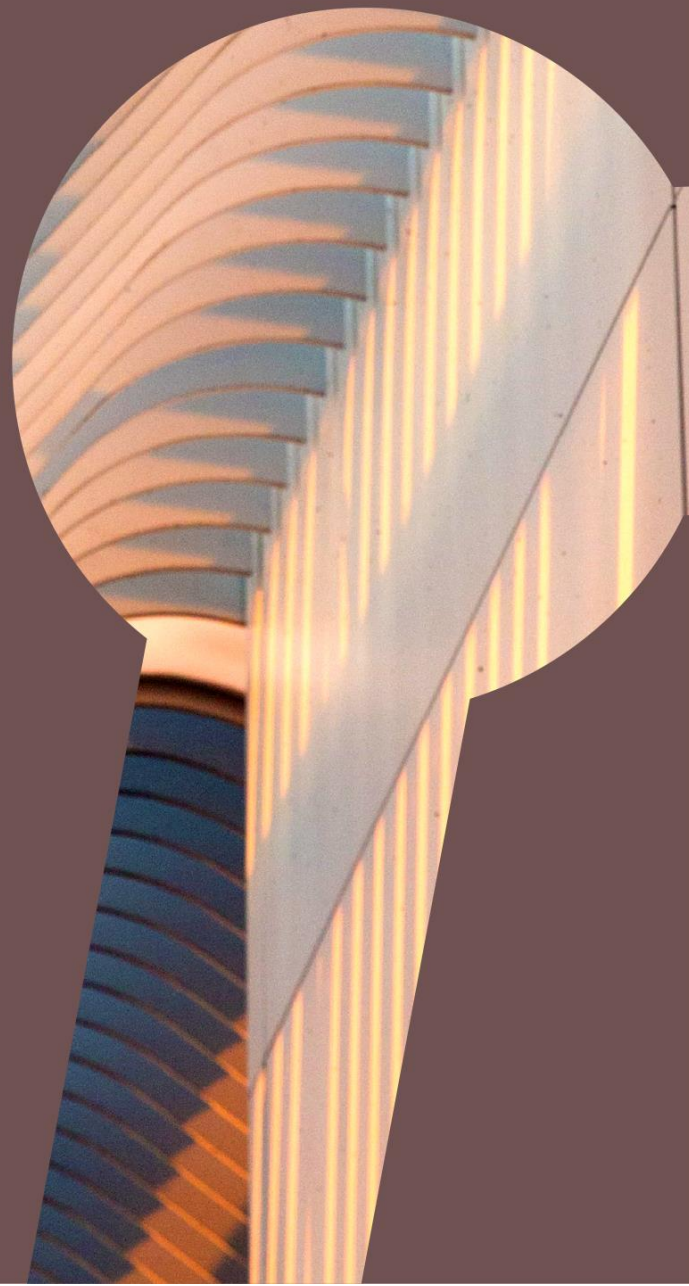




Projects & Infrastructure

**Power Guide:
Nigeria**

**ONE REGION
ONE VISION
ONE ALN**



Introduction

This Power Guide has been prepared by ALN Nigeria | Aluko & Oyeboade (**ALN Nigeria**) and provides an overview of Nigeria's power sector. The aim of this

guide is to provide useful information to investors and stakeholders on legal aspects of the industry, such as applicable regulatory standards and tariffs.

Governing Law



- Constitution of the Federal Republic of Nigeria 1999 (As Amended)
- **Primary Legislation**
 - Electricity Act 2023
- **Other laws, regulations and policies including:**
 - Business Facilitation Act, 2023
 - Companies and Allied Matters Act, 2020
 - Environmental Impact Assessment Act, 1992
 - Nigerian Investment Promotion Act, 1995
 - Market Rules
 - Nigerian Electricity Regulatory Commission (**NERC**), Application for Licenses (Generation, Transmission, System Operations, Distribution and Trading) Regulations, 2010
 - NERC (Acquisition of Land and Access Rights for Electricity Projects) Regulations, 2012
 - NERC Business Rules 2019
 - NERC Customer Protection Regulation 2023
 - NERC Distribution Code
 - NERC Eligible Customer Regulation 2017
 - NERC (Embedded Generation) Regulations 2012
 - NERC Grid Code 2017
 - NERC Guidelines on Distribution Franchising 2020
 - NERC Investment in Electric Networks Regulation 2015
 - NERC Licensing and Operating Fees Regulation, 2010
 - NERC Metering Code Market Rules for Transitional and Medium-Term Stages of the Nigerian Electricity Supply Industry, 2014
 - NERC Meter Asset Provider and National Mass Metering Regulations 2021
 - NERC Multi-Year Tariff Order 2022
 - NERC Regulations on Independent Electricity Distribution Networks 2012
 - NERC Regulation for Mini-Grids 2016
 - The Regulations on National Content Development for the Power Sector, 2014

Institutional Framework

Nigerian Electricity Regulatory Commission (NERC)



NERC was established under the Electric Power Sector Reform Act, 2005 which was recently repealed by the Electricity Act, 2023 (EA). The EA has re-established the NERC as the apex regulator of the Nigerian Electricity Supply Industry (NESI) to effectively oversee the industry and ensure adequate compliance with the laws and regulations. Its principal functions under the EA include but not limited to: (i) create, promote, and preserve efficient electricity industry and market structures, and to ensure the optimal utilization of resources for the provision of electricity services; (ii) maximize access to electricity services, by promoting and facilitating consumer connections to distribution systems in both rural and urban areas; (iii) ensure that the prices charged by licensees are fair to consumers and are sufficient to allow the

Transmission Company of Nigeria (TCN)



TCN is the sole owner and operator of the national grid network comprising of the 330kV/132kV transmission lines in the NESI. The TCN has separate divisions acting as transmission service provider, market operator and system operator. As the transmission service provider, the TCN is responsible for the wheeling of electricity generated by Generation Companies (GenCos)/IPPs that are connected to the national grid to the distribution companies. As the market operator, TCN is responsible for the coordination of the billing and settlement of payment process for the NESI, and as the system operator, TCN is responsible for load allocation and the maintenance of the national grid's integrity.

licensees to finance their activities and to allow for reasonable profit for efficient operation; (iv) ensure that regulation is fair and balanced for licensees, consumers, investors, and other stakeholders; and (v) promote the development and utilization of renewable energy services and increase the contribution of renewable energy to Nigeria's energy mix.

In addition to its principal functions, the NERC is also empowered to promote competition and private sector participation in the power sector, license and regulate persons engaged in the generation, transmission, system operation, distribution, supply and trading of electricity in Nigeria, establish appropriate consumer rights and obligations regarding the provision and use of electric services, and approve operating codes and safety, security, reliability, and quality standards.

Further to the enactment of the EA, the TCN is required to take such steps as are necessary to incorporate an entity to take on the role and function, the Independent System Operator (ISO) which may be a company limited by shares or have such ownership and governance structure as the NERC may specify. Once incorporated, the ISO shall be licensed as an Independent System Operator to carry out market and system operation functions in the NESI. The specific functions of the ISO include generation scheduling, commitment and dispatch, transmission scheduling and generation outage co-ordination, and administration of the wholesale electricity market, including the activity of administration of settlement payments, in accordance with the market rules. However, TCN will continue to retain its Transmission Service Provider (TSP) license. Specifically, the TSP licence empowers TCN to construct, maintain and operate an efficient, coordinated, economical and integrated smart grid interconnection in Nigeria and other neighbouring countries; and provide non-discriminatory and open access to its transmission system for use by any successor generating company, independent power producer, consumers, licensees or other generators upon payment of appropriate transmission charges.

Please note that the EA allows investors to construct, own and operate mini grids, independent electricity transmission network and independent electricity transmission network operators respectively (IETN/IETNOs) within a State pursuant to a law enacted by the house of assembly of a state provided that such a license does not permit the licensee to provide inter-state or transnational distribution of electricity in Nigeria.

Nigeria Bulk Electricity Trading PLC (NBET)



NBET was incorporated in 2010 as the bulk trader holding a trading license for bulk procurement and bulk sale of electricity and ancillary services within the NESI. The license allows it to purchase electrical power and ancillary services from GenCos/IPP's and resale to Distribution Companies (DisCos). The license was initially issued for a period of ten (10) years and has now been renewed for an

Federal Ministry of Power (FMOp)



FMOp is responsible for initiating and coordinating broad sectoral policies in the NESI and implementation frameworks for overall development of the electric power sector in Nigeria. The specific functions of the FMOp includes (i) coordinating activities of power sector including engagement with various states and local governments regarding proposed government subsidies and their

additional three (3) years. The licence and mandate of NBET is set to expire in 2023. If it is not further extended, at which time NBET will cease to be a participant in the NESI.

The EA provides that for the purpose of initiating the medium term and long-term electricity market as provided under the EA, NERC may specify the time within which NBET would cease to act as the bulk trader for the purchase and resale of electricity and ancillary services in the NESI and novate its existing contractual rights and obligations to other licensees.

respective roles in the implementation of existing National Electricity Policy and Strategic implementation plan; (ii) handling policy matters relating to research and development in the power sector including regular detailed research on national load demand with a view to projecting future demands for the country over a given time frame, and (iii) participating in bilateral and multilateral relations affecting the NESI.

Rural Electrification Agency (REA)



The REA has the statutory responsibilities under the EA to promote electrification of rural, underserved and unserved communities through renewable electrification programmes for public and private sector using renewable off-grid and on-grid electrification solutions.

The REA administers the Rural Electrification Fund (REF) into which monies from the following sources are paid:

- a) operating surplus of NERC following its annual audit;
- b) payment of fines or penalties imposed and collected by NERC pursuant to the EA;
- c) donations and grants from local and international donors;
- d) funds appropriate by the National Assembly;
- e) special intervention fund by Federal, State and local governments; and
- f) 2% of funds accruable to NERC for operation costs derived from the tariff structure.

The Federal Government of Nigeria, through REA, has secured financing from both the World Bank (\$350 million) and the African Development Bank (\$200 million) for the Nigerian Electrification Project (NEP).

The NEP seeks to bridge the electricity access deficit by providing electricity to households, Micro Small and Medium-sized Enterprises (MSMEs), educational and health care facilities in unserved and underserved communities through the deployment of mini-grid, solar home

Nigeria Electricity Management Services Agency (NEMSA)



NEMSA has the statutory responsibilities under the EA to carry out electrical inspectorate services and the enforcement of all technical and electrical standards published by the NERC and other relevant statutory bodies. NEMSA also carries out the functions of technical inspection, testing and certification of all categories of electrical installations, electricity meters and instruments to ensure the efficient production and delivery of safe, reliable and sustainable electricity power supply and guarantee safety of lives and property in the NESI.

systems, captive power plants, and productive use appliances.

National Hydroelectric Power Producing Area Development Commission (N-HYPPADEC)



N-HYPPADEC carries out statutory functions under the EA for the development of hydroelectric power producing areas.

The statutory functions of the N-HYPPADEC are subject to the powers of the Minister to issue policy directives and NERC's power to regulate the electricity supply industry with respect to the development of hydroelectric power producing areas.

State Electricity Markets



The Constitution was recently amended to allow the 36 states of Nigeria to legislate in all aspects of the generation, transmission and distribution of electricity. The EA also recognises the right of states to establish state electricity markets and regulatory authorities to regulate such markets. It is expected that states will soon enact laws and regulatory agencies to incentivize the growth of electricity markets within the states.

However, where a state has no legal and institutional framework, the NERC will continue to regulate all electricity supply within such state.

Power Purchase and Trading Arrangements in the NESI

- There are options for grid and off-grid electricity generation in the NESI. NBET enters into Power Purchase Agreements (PPAs) with GenCos and IPPs for grid-connected power and resells the power to DisCos through vesting contracts.
- NBET has different but similar forms of PPAs for hydro and gas powered plants. No PPAs for solar or wind power have been finalized with the NBET although negotiations are ongoing.
- As highlighted above, it is expected that NBET will cease to be a participant in the NESI and novate its existing PPAs to DisCos who will purchase power directly from GenCos. Also, GenCos can sell power from the grid directly to eligible customers without going through DisCos.
- The options for off-grid electricity include:
 - (i) embedded generation which allows GenCos or IPPs to evacuate and supply power through a distribution system without going through the national grid;
 - (ii) (development of mini-grids and bilateral agreements between GenCo or IPPs and the consumer or group of consumers; and

- (iii) captive generation where electricity is consumed by the generating entity itself. There is no license required for captive generation, but a captive permit must be obtained from the NERC for installed capacity above 1MW.
- Typical tariff structures include capacity payments (based on availability of the plant), energy payments (based on net electrical output delivered), and/or ancillary payments (pass-through charges).
- Take or pay structures are also utilized where deemed generated energy payments (DGE Payments) are made during curtailment by the off-taker. The DGE Payments are paid if the grid availability falls below the guaranteed levels as specified under the standard PPA.
- Amounts are payable in the local currency (Nigerian Naira), or a foreign currency as agreed by the parties.
- Pursuant to the EA, only the following activities are subject to tariff regulation:
 - (a) generation and trading where NERC considers regulation of tariff necessary to prevent abuses of market power;
 - (b) transmission, distribution, supply and system operation in respect of which licences are issued by NERC;
 - (c) electricity distribution franchising or other activity as NERC may determine.
- Any tariff methodology set by NERC must:
 - (a) allow investors recover full cost of its business activities including a reasonable return on investment;
 - (b) provide incentives for continued improvement of technical and economic efficiency;
 - (c) avoid undue discrimination between consumers and consumer categories; and
 - (d) promote generation of electricity from renewable sources.
- Notwithstanding the above, NERC is required to approve any willing-buyer willing-seller ring-fenced arrangements that allows bilateral contracts for premium services to a class of consumers at a different tariff other than the approved tariff methodology; and tariff methodologies that reflect the terms of a contract between a GenCo/IPP and one or more eligible customers.
- Off-grid projects may apply a tariff outside the regulated tariff framework under Multi-Year Tariff Order (MYTO). Further, state electricity markets when established will not be subject to the tariff methodology provided by NERC under the EA.

Local Shareholding Requirements

- There are no restrictions on ownership of shares by foreign investors or mandatory local equity participation requirements in the NESI. However, there is a prescribed threshold of local content requirements that seek to create in-country value

creation in terms of the utilization of human and material resources, goods, works and services in the NESI as stipulated in the Regulations on National Content Development for the Power Sector, 2014.

Feed-in-Tariffs (FIT) System

- Nigeria has a draft feed-in tariff policy which is yet to be enforced. The feed-in tariff relates to on-grid renewable energy projects which are still being negotiated between NBET and IPPs. Renewable energy tariffs for off-grid projects are approved in PPAs on a case-by-case basis.
- The EA imposes obligation on NERC to approve:
 - (a) rates chargeable for the purchase of electricity from renewable energy sources by public utilities;
 - (b) charges for mini-grid and grid connection; and
 - (c) rates chargeable for wheeling of electricity from renewable energy sources.
- An electricity distribution utility is prohibited from buying or negotiating a PPA with a generator of electricity from renewable energy sources unless it is in accordance with guidelines provided by the NERC.
- NERC is also required to prepare and provide public utilities with guidelines on the level of rates that may be charged by the public utility for electricity generated from renewable energy sources.
- The feed-in-tariff rate fixed for electricity from renewable energy sources is guaranteed for such a period as may be stipulated by NERC.
- A public utility is not allowed to demand a feed-in-tariff rate for electricity generated from renewable energy sources unless the feed-in-tariff rate

chargeable has been approved by the NERC. Additionally, a public utility shall not directly or indirectly demand or receive a feed-in-tariff rate higher than the feed-in-tariff rate approved by NERC in relation to electricity generated from renewable

energy sources. However, a distribution licensee may demand and receive from a consumer a higher feed-in-tariff rate agreed to by both the distribution licensee and the consumer with the written permission of the NERC.

Payments to Off-taker

IPPs/GenCos typically pay liquidated damages for:

- delay in reaching Commercial Operations by stipulated date; and/or
- failing to meet availability thresholds during operations of the plant.

Credit Enhancements and Security Arrangements

- Nigeria has provided sovereign guarantees for power projects in the past but is unwilling to provide such guarantees for all power projects currently in development.
- Depending on what parties negotiate, each party to a PPA may provide payment security in the form of a letter of credit to cover their respective payment obligations under the relevant PPA.
- Partial risk guarantees and political risk insurance have been developed for the Nigerian market/NBET by the World Bank and the Africa Development Bank (AfDB).

Key Approvals/Licenses Required to be Procured.

- Distribution License issued by NERC.
- Supply License issued by NERC.
- Trading License issued by NERC.
- Transmission license issued by NERC.
- Generation licence (excluding captive generation)
- Mini-Grid, IEDN/IEDNO, and IETN/IETNO License issued by NERC.
- Meter Asset Provider License issued by NERC.
- Environmental Impact Assessment (EIA) issued by the Federal Ministry of Environment for 10MW projects and above.
- Following the recent Constitutional amendment and enactment of the EA which empowers the 36 states government to establish electricity market separate from the NESI, it is expected that state governments will soon enact laws and stipulate licenses for the States electricity markets.

Governing Law and Dispute Resolution

- Parties to PPAs can negotiate the governing law and choose the dispute resolution mechanism to be applicable to the PPA or other contractual arrangement for supply of electric power. Nigerian law is not mandatory.
- If arbitration is agreed and a foreign arbitral award is issued, Nigeria is a party to the Convention on the Settlement of Investment Disputes between States and Nationals of other States, 1965 (ICSID Convention) and the Convention on the Recognition and Enforcement of Foreign Arbitral Awards, 1958 (New York Convention). Arbitral awards obtained under the ICSID Convention are immune from appeal, stay or annulment other than as provided in the ICSID Convention, but must be filed at the Supreme Court of Nigeria to be enforceable. All other arbitration awards which are subject to the New York Convention will be enforceable by a High Court having jurisdiction over the subject matter in Nigeria.

Power Sector Experience

ALN Nigeria has extensive power experience and works on landmark transactions in the region and increasingly in Nigeria. In particular, ALN Nigeria has unique on the ground experience in infrastructure and energy deals in Kenya and other African

jurisdictions. ALN Nigeria has strong business and regulatory relationships enabling a concise understanding of structuring a deal in light of potential economic, political and financial risk.



Equity Investment in Arnergy: Acted as counsel to Arnergy, in connection with the equity investment of US\$9,000,000 by a consortium of investors in Arnergy to fund the expansion of the Company's business of providing solar power systems.



Equity Investment in Abuja Electricity Distribution Company Limited and Shiroro Hydro Electric Plc: Advised Standard Chartered Private Equity in connection with its indirect investment in Abuja Electricity Distribution Company Limited and Shiroro Hydro Electric Plc, which were acquired during the privatisation of Power Holding Company of Nigeria.



Privatisation of NIPP Assets: Advised an international power company in connection with its participation in the privatisation of the National Integrated Power Project ("NIPP") by Niger Delta Power Holding Company Limited and The Bureau of Public Enterprises. The company was pre-qualified to bid for 3 gas-fired power generation plants.



Development, Financing and Implementation of the First Private Independent Power Production (IPP) Project in Nigeria: Acted as Nigerian counsel to a natural gas and electricity company and advised on the development, financing and implementation of the first private IPP project in Nigeria, involving the installation of 9 barge-mounted electricity generating units with a total nominal capacity of approximately 270 MW.



Project Voltalia: Provided legal and regulatory advice to the EPC Contractor for the Bauchi Solar Project. Responsibilities included conducting a legal review of the EPC contract; advising on the structure of the EPC contract as well as custom and import duty waiver and requirements.



Korea Electric Power Corporation: Advised the Korea Electric Power Corporation (KEPCO) in connection with its contract for the repair of two 1,320MW boilers at the Egbin Power Plant and the operation and maintenance of the Egbin Power Plant.



Ughelli Power Plant Project: Advised one of the founding shareholders of the consortium in the USD 300million acquisition of Ughelli Power Plant, a gas-fired electricity generation company located in Delta State, in the South-South region of Nigeria with an installed capacity of 900MW of electricity.



Ewekoro Power Limited (Lafarge Group): Advised on the multi-million-dollar financing of a 12.8 MW power plant to be constructed by Ewekoro Power Ltd (a subsidiary of Rolls Royce Power Ventures) at the Ewekoro Plant of West African Portland Cement (a member of the Lafarge Group).



Hydro Electric Power Project: acted as Nigerian counsel to PowerChina Huadong Engineering Corporation ("PowerChina"), the EPC Contractor and lender to the Dadin-Kowa Hydro Electric Power Project concession



Proposed Acquisition of a Majority Stake in Akwa Ibom IPP: Advised Globeleq in connection with its proposed acquisition of a majority stake in the Akwa Ibom IPP Project via an acquisition of up to 80% of the shares in

granted by the Federal Ministry of Water Resources on behalf of the Upper Benue River Basin Development Authority to Mabon Limited (the "Project Company") to design, construct, install, operate and maintain a hydro-power generating facility with an aggregate capacity of 39MW at Dadin Kowa 3 Dam in Gombe State, Nigeria.

the project company - Ibom Power Company from the sole shareholder, the Akwa Ibom Investment and Industrial Promotion Council. Specific assignments handled by the Firm include advising on the legal and regulatory framework for the Nigerian power sector; analysing various legal issues pertaining to the IPP; reviewing and negotiating relevant transaction documents.



Development of a Greenfield Independent Power Production Plant: Advised an offshore power company on the development of a Greenfield Independent Power Production plant to be constructed in the Niger Delta region of Nigeria.



Refinancing of a Power Generation Plant in Lagos State: Advised the Lenders in connection with the financing provided to a power company (the "Borrower") for the purpose of refinancing an existing facility from another Nigerian financial institution in relation to its power generation project in Lagos State. We advised the same Lender on a parallel financing to the Borrower's affiliate for the procurement of a power plant for captive generation.



Supply of Solar Generated Power to Sterling Head Office and Investment in Renewable Energy Solutions: Advised Sterling Bank in connection with the proposed supply of solar generated electricity to its head office by a Joint Venture Company and its proposed plan of investing in and providing renewable energy solutions to customers.



Power Purchase Agreement: We are currently advising an electricity generation company as the seller in the sale of the contractual capacity from a hydro-electric power generation plant in Kaduna, Nigeria. The transaction is about private sector participation in the power sector vide the concession of a hydro-power plant. It is a renewable power project, geared towards providing power to millions of people and businesses located in the Northern part of Nigeria, that is currently underserved with power.

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About ALN Nigeria

Chambers Africa Awards 2023 - Nigeria Law Firm of the Year; IFLR Africa Awards 2022 - Nigerian Project Finance Firm of the Year

Aluko & Oyeboode has an in-depth knowledge of the legal, commercial, and regulatory complexities of the power sector in Nigeria. This allows the firm to provide Nigerian and international clients with top-tier legal representation on a broad spectrum of power transactions.

The Firm is recognised as a particularly commercially oriented firm, tailoring legal advice to suit clients' needs and providing clients with clear and concise advice that assists them in conducting their business without compromising their interests and within the ambit of the law. With offices in Lagos, Abuja and Port-Harcourt spread across the three major regions in Nigeria, the Firm has significant strength and strategic alliances with the government and relevant stakeholders.

Our areas of specialisation include: Banking, Capital Markets, Competition and Antitrust, Corporate Services, Employment, Immigration, and Incentives, Environment, Social, and Governance Advisory, Energy and Natural Resources, Financial Institutions Advisory, Governance Risk and Compliance, Infrastructure Finance and PPP, Intellectual Property, International Trade, Litigation, Dispute Resolution and Risk Management, Mergers & Acquisitions, Private Equity, Privatisation, and Public Procurement,

Real Estate, Reporting and Whistleblowing Service, Tax, Telecommunications, Media, Entertainment and Technology, Venture Technology and Emerging Growth Companies, White Collar and Investigation.

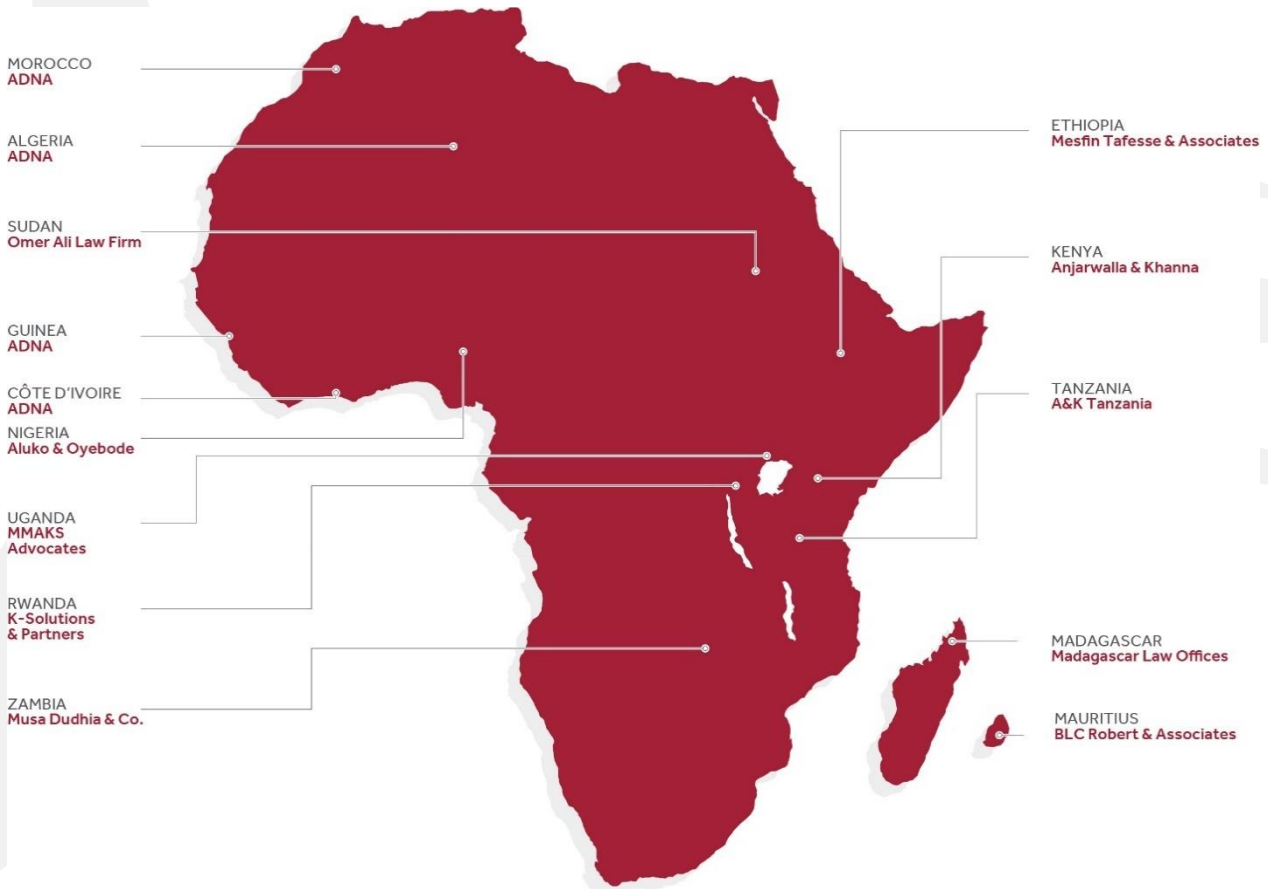
Aluko & Oyeboode is a member of the **Africa Legal Network (ALN)**, an alliance of leading independent top-tier African law firms. Being the ALN's firm of choice in providing integrated legal services in Nigeria, confirms our drive to identify new opportunities in a bid to unlock value for our clients doing business and investing in Africa.

Our expertise has been recognised by a number of award bodies. In addition to winning the Nigerian Project Finance Firm of the Year at the IFLR Africa Awards 2022, we won the Nigeria Law Firm of the Year at Chambers Africa Awards 2023.

The firm is currently ranked as Band 1 by Chambers in Global 2022 in Banking & Finance, Corporate/Commercial, Dispute Resolution and Projects & Energy. Equally, the firm is ranked as a top tier firm in IFLR 2022 in Banking, Capital Markets: Debt, Capital Markets: Equity, Mergers & Acquisitions, Project Development: Infrastructure, Project Development: Power, and Project Finance.



About ALN



ALN is an integrated alliance of the preeminent full-service corporate law firms in 14 African countries: Algeria, Côte d’Ivoire, Ethiopia, Guinea, Kenya, Madagascar, Mauritius, Morocco, Nigeria, Rwanda, Sudan, Tanzania, Uganda and Zambia. ALN also has a regional office in Dubai, UAE, which serves as a gateway to the Gulf region and beyond.

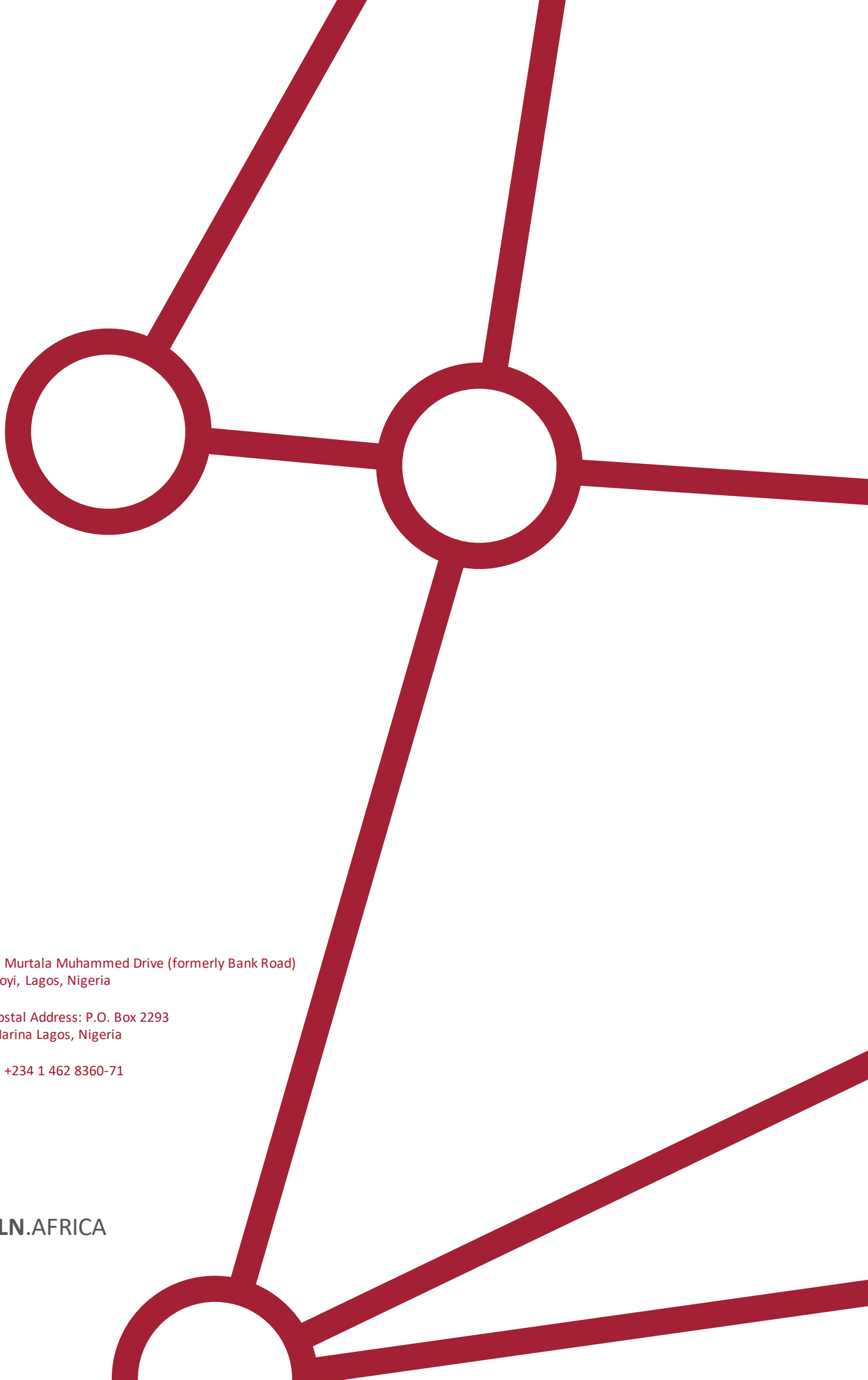
Vision

ALN seamlessly connects the African continent. It brings its global expertise, continental reach and deep local know-how to help its clients navigate the multitude of opportunities and risks in Africa, holistically combining legal, tax, regulatory and commercial advice.

Mission

ALN is dedicated to its clients’ success. ALN achieves this by providing world class legal, tax and regulatory advice in a commercial context. ALN’s lawyers are aware of the trends and events shaping the continent, deeply networked and respected in their communities as thought leaders and opinion shapers. ALN’s lawyers have a Pan African mindset, are down to earth, pragmatic, responsive, innovative and relentlessly determined.





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