## ENERGY REGULATION AND MARKETS REVIEW

NINTH EDITION

Editor David L Schwartz

### *ELAWREVIEWS*

# ENERGY REGULATION AND MARKETS REVIEW

NINTH EDITION

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### PREFACE

In our ninth year of writing and publishing The Energy Regulation and Markets Review, the most pressing global concerns have revolved around the covid-19 pandemic. Accordingly, many of our contributing authors have emphasised concerns associated with the effects of the crisis on energy demand and consumption, and delays in the development of infrastructure. Beyond this crisis, we have seen many other significant geopolitical changes that have added uncertainties to global energy policies. For example, oil prices have hit record lows, which has slowed exploration and production efforts, and has threatened economic stability for countries that depend upon oil revenues. The United Kingdom is now within its 11-month transition period to exit from the European Union (a process known as Brexit), creating uncertainties regarding the future of the UK's energy policies and its coordination and cooperation with the European Union, including with respect to commitments to reduce greenhouse gases (GHGs). The Trump administration's 'America First' trade policies have continued to alienate US allies and historical trading partners. Despite its withdrawal from the Paris Agreement and expressions of support from the Trump administration for the coal industry, the United States has continued its extensive investment in renewable generation resources. The 2011 Fukushima nuclear incident continues to affect energy policy in many countries. Finally, there are continued efforts to liberalise the energy sector globally.

### I CLIMATE CHANGE DEVELOPMENTS

Despite the US withdrawal from the Paris Agreement, we continue to see significant carbon reduction efforts globally, including increased use of renewable resources, and measures to improve energy efficiency and reduce demand.

In the United States, despite the Trump administration's support for the US coal industry, coal and other aged fossil fuel plants are retiring at an unprecedented rate. Additionally, many states have pushed for the procurement of thousands of megawatts of renewable resources, including from new offshore wind development projects on the east coast. However, the US Bureau of Ocean Energy Management has delayed granting approvals for offshore wind projects, and the Federal Energy Regulatory Commission has imposed regulatory restrictions on the ability of state-subsidised renewable energy projects to clear in the regional capacity markets through a minimum offer price rule to mitigate buyer market power.

The European Union issued a revised Renewable Energy Directive, which will take effect in 2021, targeting 32 per cent renewable consumption by 2030. Despite continued efforts to follow through on Brexit, the United Kingdom's renewable energy targets already exceed those of the European Union. France is seeking to double its wind and solar capacity and President Macron has announced a goal to close the remaining coal plants by 2022.

Italy had previously targeted a 28 per cent reliance on renewable energy by 2030 but is now working to reach the 32 per cent target adopted by the European Union. Belgium has continued its significant offshore wind procurement efforts, and is seeking to reduce subsidies in future procurements. In Denmark, renewables already constitute 40 per cent of electricity consumption and the aim is to have all energy demand met by renewables by 2050. Germany will not meet its goal of reducing emissions by 40 per cent by 2020, or its goal to reduce energy consumption by 20 per cent as compared with 2008, but remains focused on the continued development of renewable generation, energy efficiency and conservation, as well as energy storage technologies. Poland has been struggling to meet the European Union renewable energy targets but has plans to develop offshore wind generation.

Japan has continued its efforts to develop solar and wind resources, including opening new sea areas for offshore wind. But the shutdown of most of its nuclear generation has resulted in a significant reliance upon natural gas, including liquefied natural gas, and reductions in renewable energy prices has caused a slowdown in new solar and wind development. China continues to have ambitious renewable energy goals, capping energy from coal generation to an amount equivalent to 5 billion tonnes and aiming to have 15 per cent of generation supplied by non-fossil fuel generation. Korea aims to generate 20 per cent of its power needs from renewable energy and has committed to cut GHGs by 37 per cent by 2030.

This year, Australia has reached almost 20 per cent reliance on renewable energy resources, including significant amounts of energy storage capacity (battery and pumped water) and South Africa increased its renewable independent power procurement efforts, with a goal of producing 17,800MW of renewable energy by 2030.

The United Arab Emirates aims to reduce its carbon footprint by 70 per cent by relying on 50 per cent renewable energy by 2050, and Abu Dhabi is seeking to reduce electricity consumption by 22 per cent by 2030. In Brazil, hydroelectric resources already constitute more than 60 per cent of its installed generation capacity, and efforts continue to increase wind and solar generation as the cost of renewable generation has decreased. Colombia has significant renewable energy resources and recently completed its first auctions for renewable projects, with 1,398MW awarded and installed.

### II INFRASTRUCTURE DEVELOPMENT

For many countries, a reliable energy supply remains the primary concern, regardless of fuel source. As only 35 per cent of Myanmar is connected to the grid, there are continued efforts to electrify remote parts of the country. Lebanon is hoping to solicit bids for the development of 890MW on floating barges to increase electricity supply. Panama and Colombia continue to seek foreign investment.

South Africa is utilising its Integrated Resource Planning process with a goal of doubling its generation and transmission capacity by 2030. Australia is developing the Snowy Hydro Project, which, at 2,000MW, will be one of the largest pumped hydroelectric storage projects in the world. Colombia is developing a large hydroelectric project that is expected to produce up to 17 per cent of the country's energy needs, but that effort is hindered by construction delays.

In its eighth licensing round for oil and gas exploration in the North Sea, Denmark received five new applications, but owing to political pressure relating to GHGs, Denmark has put this licensing round on hold indefinitely.

### **III NUCLEAR POWER GENERATION**

Nine years after the Fukushima disaster, Japan has stopped operations at all but nine of its 48 nuclear power stations, and 11 nuclear power stations are in the process of being reviewed for restart under Japan's new stringent safety standards. Germany continues efforts to phase out all nuclear generation by 2022, and Belgium's nuclear plants have often been offline for maintenance for technical issues in the past few years. France was seeking to eliminate nuclear generation by 2025 but has extended that date to 2035. South Korea has continued its efforts to phase out nuclear power (replacing nuclear plants with new renewable facilities over time). South Africa's nuclear ambitions appear to be on hold at least until 2030.

However, the phasing out of nuclear energy is not universal. The United Arab Emirates' new 5,600MW Barakh nuclear power station is almost complete and one of its units is already operational. When all units are on-line, Barakh will supply 25 per cent of the emirates' electrical needs. Poland still intends to explore the development of nuclear power in the future. In the United States, even though the early retirement of certain nuclear plants has been driven by cost and power market considerations (rather than safety concerns), some states have passed legislation to subsidise nuclear energy to allow owners to continue to operate through zero emissions credit programmes, including Illinois, New York, New Jersey and Ohio, with similar legislation being considered in Pennsylvania.

### IV LIBERALISATION OF THE ENERGY SECTOR

We have seen significant energy sector regulatory reforms in many countries. The European Union has sought to continue efforts to centralise the regulation of the EU energy sector. France has taken significant steps towards further liberalisation of its energy sector. Japan has fully liberalised its electricity and gas sectors and is encouraging market entry. Australia has opened access to transmission through regulatory reforms to encourage entry into the generation market and is undertaking significant energy market reforms to send more accurate price signals to market participants. Brazil continues its efforts to implement net metering regulations this year. China has reduced subsidies for renewable energy, prices transmission and distribution rates based upon a cost-plus regulatory methodology, and has implemented a market-priced mechanism for pricing coal-based generation. The United Kingdom has implemented a competitive tender process for the development of offshore transmission. In the United States, while states have continued to subsidise nuclear and renewable generation, the Federal Energy Regulatory Commission has permitted regional markets to implement minimum offer price rules to combat buyer-side mitigation in an effort to maintain competitive capacity markets.

I would like to thank all the authors for their thoughtful consideration of the myriad interesting, yet challenging, issues that they have identified in their chapters in this ninth edition of *The Energy Regulation and Markets Review*.

### David L Schwartz

Latham & Watkins LLP Washington, DC May 2020

### NIGERIA

Gbolahan Elias and Okechukwu J Okoro<sup>1</sup>

### I OVERVIEW

### i Petroleum

The Nigerian petroleum industry is regulated by the Department of Petroleum Resources (DPR), an arm of the Federal Ministry of Petroleum (the Ministry). The Ministry is headed by the Minister of Petroleum Resources (the Minister). The petroleum industry is dominated by major joint venture arrangements, production sharing contracts and service contracts between the Nigerian National Petroleum Corporation (NNPC), which is wholly owned by the federal government of Nigeria (FGN), and international oil companies with global operations (IOCs) and recently established indigenous oil and gas companies. A number of statutes and policies encourage indigenous companies to participate actively in the industry.

Activities in the petroleum industry are regulated by several laws in respect of the the ownership, control and enjoyment of rights, construction and maintenance of installations, and environmental protection. The principal law regulating the exploration, production and distribution of petroleum in Nigeria is the Petroleum Act 1969 (PA).

### ii Electricity

The Nigerian Electricity Regulatory Commission (NERC), established under the Electric Power Sector Reform Act 2005 (EPSRA), regulates the Nigerian electricity industry. EPSRA sets out the legal framework for the industry. Through EPSRA, the FGN unbundled and privatised the then state-owned monopoly, the National Electric Power Authority (NEPA) as the Power Holding Company of Nigeria, generation companies (Gencos), distribution companies (Discos) and the Transmission Company of Nigeria (TCN). The Gencos and Discos are controlled by private-sector investors. The FGN retains sole ownership of the TCN.

### **II REGULATION**

### i The regulators

### Petroleum

The Constitution of the Federal Republic of Nigeria 1999 (as amended) (the Constitution) and the PA vest the ownership and control of petroleum under or upon any land in Nigeria, its territorial waters and exclusive economic zone in the FGN. The FGN exercises its control over and regulates the petroleum industry through the Ministry. The Ministry has general

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oversight responsibilities, and determines and formulates policies governing the petroleum industry. The Minister has broad discretionary powers to grant licences and leases; regulate construction, maintenance and operation of installations and refineries; and supervise all operations carried out under the licences and leases granted.

The DPR ensures that operators in the industry comply with the applicable laws, supervises all petroleum operations and processes applications for the licences, leases and permits required to operate in the industry. The DPR also regulates the abandonment and decommissioning of installations.

The DPR and Federal Ministry of Environment regulate the environmental aspects of the production, transmission, distribution and supply of petroleum and petroleum products in Nigeria. Further, the National Environmental Standards and Regulations Enforcement Agency (Establishment) Act 2007, the Environmental Impact Assessment Act 1992 and the Environmental Guidelines and Standards for the Petroleum Industry in Nigeria 2018 prescribe the environmental and emission standards applicable to petroleum activities in Nigeria.

There is also a 'local content' regulator, the Nigerian Content Development and Monitoring Board (the Board), established under the Nigerian Oil and Gas Industry Content Development Act 2010 (NCA). The Board is required to ensure the growth of Nigerian content in the petroleum industry.

Other regulatory agencies whose functions have an effect on the industry include:

- the Nigeria–São Tomé and Príncipe Joint Development Authority, which promotes and supervises petroleum activities in the Nigeria–São Tomé and Príncipe joint development zone;
- *b* the Nigerian Investment Promotion Commission, which registers foreign investments in Nigeria;
- c the Central Bank of Nigeria, which, under the Foreign Exchange (Monitoring and Miscellaneous Provisions) Act 1995, supervises foreign exchange dealings in Nigeria (including imports of foreign capital and repatriation of export proceeds from oil and non-oil exports);
- *d* the Niger Delta Development Commission, which formulates policies and guidelines for the development of the Niger Delta area and liaises with operating companies to ensure pollution prevention and control;
- *e* the National Oil Spill Detection and Response Agency, which deals with waste emanating from petroleum production and exploration; and
- *f* the Nigerian Ports Authority and Nigeria Customs Service acting under the Nigerian Ports Authority Act 1999, the Pre-shipment Inspection of Exports Act 1996 and the Customs and Excise Management Act 1959, all of which regulate the export of petroleum.

The NNPC is not a regulator. It is a vertically integrated state-owned statutory corporation, with various subsidiaries, one of which is the Nigerian Gas Company (NGC). The NGC owns and operates the main gas transmission systems in Nigeria. The Nigerian Petroleum Development Company Limited has the responsibility for petroleum exploration and production activities. The National Petroleum Investment Management Services, a division of the NNPC, oversees the NNPC's interests in joint venture arrangements, production sharing contracts and service contracts with IOCs. The Pipelines and Products Marketing Company Limited and NNPC Retail Ltd, respectively, import and market refined petroleum products.

There are a number of regulations made pursuant to the PA that regulate specific aspects of the industry. The Mineral Oils (Safety) Regulations 1962 prescribe standard safety measures for lessees and licensees. The Petroleum Regulations 1967 regulate importation, shipping, unshipping and landing of petroleum, storage and transportation of petroleum, fuelling of aircraft, among other things. The Petroleum (Drilling and Production) Regulations 1969 regulate applications for leases and licences, exploration and drilling, field development, and payment of fees, rents and royalties. The Petroleum Refining Regulations 1974 regulate construction, operation and maintenance of refineries.

The construction, operation and maintenance of oil pipelines are regulated by the Oil Pipelines Act 1956 and the Oil and Gas Pipeline Regulations 1995. The transportation of crude oil in Nigerian waters and payment of terminal dues on any ship evacuating oil from terminals in Nigeria are regulated by the Oil in Navigable Waters Act 1968 and Oil Terminal Dues Act 1969, respectively. The Associated Gas Re-injection Act 1979 regulates the reinjection of associated gas into oil wells. The Petroleum Profit Tax Act 1958 (as amended by the Finance Act 2019) taxes profits from upstream petroleum operations in Nigeria.

### Electricity

Under EPSRA, NERC, as the regulator of the Nigerian electricity industry, issues regulations and orders giving effect to EPSRA. NERC is also vested with the power to grant licences for the generation, transmission, system operation, distribution and trading of electricity. NERC is also required to promote competition and private sector participation, and to ensure standards of quality in the electricity industry. EPSRA further established the Rural Electrification Agency to promote, support and provide rural electrification programmes in Nigeria.

The Federal Ministry of Power, guided by EPSRA and the FGN's National Electric Power Policy 2001, formulates electricity policy in Nigeria. The Federal Ministry of Power is empowered under EPSRA to issue general policy directions to NERC on the electricity industry, and NERC is bound to comply except where a policy is in conflict with EPSRA or the Constitution. The Energy Commission of Nigeria (ECN) also has a strategic role in the electricity industry. The ECN was established by the Energy Commission of Nigeria Act 1979 (as amended) with the mandate to plan and coordinate national policies in the field of energy, and has been promoting the use of renewable energy sources in generating electricity. The Nigerian Electricity Management Services Agency, established under the Nigerian Electricity Management Services Agency Act 2015, is responsible for the enforcement of technical standards, regulations, technical inspection, testing and certification of all categories of electrical installations, electricity meters and instruments to ensure efficient production, delivery and measurement of safe, reliable and sustainable electricity power supply in Nigeria, and to guarantee the safety of lives and property in the Nigerian electricity industry.

The TCN manages the electricity transmission network in Nigeria. The TCN has two key operating officers. One, the market operator, administers the wholesale electricity market, and promotes efficiency and competition. The other, the systems operator, is responsible for planning, administration and grid discipline. In addition, the National Inland Waterways Authority established under the National Inland Waterways Authority Act 1996, regulates inland waterways navigation and issues permits for generation projects requiring water use.

### ii Regulated activities

### Petroleum

The petroleum industry comprises upstream, midstream and downstream sectors. The rights to explore, prospect, produce, process and distribute petroleum and petroleum products are granted through the issuance of leases, licences and permits by the Minister and the DPR (in some cases) to operators in these sectors.

For the upstream sector, the relevant leases and licences are the oil exploration licence (OEL), oil prospecting licence (OPL) and oil mining lease (OML). An OEL confers a non-exclusive right to explore for petroleum for one year, and is renewable for one year.

An OPL has a duration of not more than five years, including renewals, and confers a right to prospect for petroleum. However, the duration of an OPL granted in respect of the deep offshore and inland basin is a minimum of five years and an aggregate period of 10 years. An OML has a duration of 20 years and is subject to renewal. An OML confers an exclusive right to explore, carry away and dispose of petroleum. A drilling rig licence is also required to operate a drilling rig, and a permit is required to conduct seismic data survey.

For the midstream and downstream sectors, a licence is required to construct or operate a refinery or processing plant, export, import, store, sell or distribute petroleum and petroleum products. The approval of the DPR is required to construct and operate a petroleum products filling station or a blending plant, and to retail lubricants. A permit is required to survey the route for a pipeline. A licence is required to construct and operate a pipeline, any pumping station, storage tanks, loading terminals or other ancillary installations. Further, to construct pipelines, a right of way must be obtained from the state government on which the land is located. This may be conveyed through a certificate of occupancy or permit from the relevant state government or by special agreement with the owner of the land (subject to payment of compensation).

DPR permits are also required to render services in the petroleum industry. There are three categories of permits: (1) the general category covers minor supply, works and maintenance services; (2) the major category covers rehabilitation, upgrade and fabrication works, onshore pipeline and storage facility maintenance, equipment supply, consultancy, survey and calibration; and (3) the specialised category covers pipeline laying, drilling, exploration, technical consultancy, dredging and environmental restoration services.

The procedures for obtaining these leases, licences and permits vary but all are overseen by the DPR. In addition, the Environmental Impact Assessment Act 1992 requires the issuance of a certificate stating that an environmental assessment of a petroleum project has been conducted before one can embark on such a project, and that the outcome has been officially approved. The environmental laws of some states make it mandatory to obtain a permit from the state environmental agency to construct or operate any project or activity that affects the environment.

### Electricity

As with the petroleum industry, activities in the Nigerian electricity industry are strictly regulated. Through EPSRA, a NERC licence is required to construct, own or operate an electricity generation, transmission, distribution, system operation or trading undertaking. Applications for licences are made in writing to the chairman of NERC, accompanied by the prescribed fees and in the manner prescribed by NERC.

Licences issued by NERC include generation licences, which authorise the licensees to construct, own, operate and maintain generation stations. A licence is not required, however, to construct or operate a generating plant not exceeding 1MW in capacity.

A transmission licence allows the licensee to carry out grid construction, operation and the maintenance of a transmission system in Nigeria, or to connect Nigeria with a neighbouring country. The holder of a transmission licence may also be required to carry out system operation and the procurement of ancillary services. A system operation licence authorises the licensee to carry out system operations such as generation and transmission scheduling, transmission management and coordination, procurement and scheduling of ancillary services and administration of wholesale electricity market.

A distribution licence holder has the right to construct, operate and maintain a distribution system and facilities such as the supply of electricity, installation, maintenance and reading of meters, billing and collection. A licence is not required for a distribution station not exceeding 100kW in aggregate. A trading licence authorises the licensee to purchase, sell and trade in electricity. NERC may also issue a temporary bulk purchase and resale licence authorising the purchase of electrical power and ancillary services from independent power producers and Gencos for resale.

In addition to the licences required under EPSRA, the Factories Act 1987 requires factory owners (which includes electricity generating and distribution companies) to apply to the Director of Factories for registration within a month of commencement of business. A licence is also required to undertake any hydroelectricity project. This must be obtained from the Ministry of Water Resources, which regulates the diversion, storage, pumping or use on a commercial scale of any water.

### iii Ownership and market access restrictions

### Petroleum

Except for the general requirement to incorporate a Nigerian company before carrying on business in Nigeria, there are no restrictions on a foreign company acquiring an interest in the petroleum industry in Nigeria. The NCA, however, provides for certain privileges for companies in the industry with more than 51 per cent Nigerian equity participation. Under the NCA, these companies will be given first consideration in the award of oil leases and licences. Also, in awarding contracts for the provision of services, Nigerian indigenous companies will be exclusively considered. The DPR also has a practice of not granting majority stakes in OPLs or OMLs to foreigners.

The Minister has the right to require refinery licence holders to deliver petroleum products to the FGN, or OPL or OML holders, to deliver crude oil to a person with a refinery licence. Also, during a state of emergency or war, the Minister has the right of pre-emption of all petroleum obtained under a lease or licence subject to payment of an agreed price; or, if there is no such agreement, a fair price for the time being at the point of delivery as may be agreed; or in default of such an agreement, by arbitration. The National Domestic Gas Supply and Pricing Policy (the Domestic Gas Policy) and the National Gas Supply and Pricing Regulations 2008 (the Gas Pricing Regulations) require OPL and OML holders to supply up to a specific volume of gas for domestic consumption. An OML holder is further required to relinquish half of the leased area 10 years after the grant of the OML.

The Minister may revoke an OPL or OML if the holder is not conducting operations in accordance with the basic approved work programme and good oilfield practice, or fails to pay rent or royalties, to furnish reports on its operations or to comply with the PA, regulations or the terms of the licence or lease. The Minister may also revoke these rights if the licence holder comes under the control, directly or indirectly, of a citizen of, or a company incorporated in, a country the laws of which do not permit citizens of Nigeria or companies incorporated in Nigeria or controlled by Nigerians to acquire, hold and operate petroleum concessions on conditions that, in the opinion of the Minister, are reasonably comparable with the conditions upon which these rights are granted to subjects of that country.

### Electricity

EPSRA prohibits anyone holding a NERC licence from assigning or ceding his or her licence or transferring his or her undertaking without the prior consent of NERC. Similarly, no person holding a licence from NERC may, without NERC's consent, acquire or affiliate with the licence or undertaking of any other licensee or person who is in the business of generating, transmitting, distributing or trading electricity.

In addition, every licensee is required by NERC Regulations on National Content Development for the Nigerian Electricity Supply Industry 2013 to develop a framework for the development and promotion of Nigerian content in the electricity industry. The licensees are also mandated to maintain a technology transfer plan that details various technologies deployed by the operator and the modalities for transfer to Nigerians, where applicable.

### iv Transfers of control and assignments

### Petroleum

The prior consent of the Minister is required before any transfer of an interest, power or right in a licence or lease whether by way of acquisition, merger, takeover, exchange or transfer of shares, listing, testamentary devises, judgment or arbitral award. For the farm-out of marginal fields, the consent of the President is required; however, the DPR is to be notified prior to the commencement of any such transaction. The responsibility for obtaining consent is that of the assignor. Also, a production-sharing contract or joint venture agreement, depending on the contractual arrangement of the parties, may require that the non-assigning parties waive or assert their pre-emption rights.

Consent will only be granted if the Minister is satisfied that the proposed assignee is of good reputation, has sufficient technical knowledge, experience and financial resources to carry out the operations effectively under the licence or lease and is in all other respects acceptable to the FGN. For the farm-out of marginal fields, the President will only give his consent if he is satisfied that it is in the public interest to do so. In the case of a non-producing marginal field, the marginal field must have been left unattended for an unreasonable time (not less than 10 years) and the parties to the farm-out must be acceptable to the FGN.

### Electricity

NERC has the statutory responsibility to consider whether or not to approve a merger, acquisition or affiliation. To do so, it may require information from licensees, undertake inquiries and establish or contract with an independent entity to provide monitoring services. The prior consent of NERC is required for a licensee to assign or cede a licence or transfer an undertaking, or any part of it, by way of sale, mortgage, lease, exchange or otherwise to another. The prior written consent of NERC is required for a licensee to acquire, by purchase or otherwise, or affiliate with, the licence or undertaking of any other licensee under the EPSRA. However, a distribution licensee may also be issued with a trading licence to provide electricity to customers.

The approval of the Federal Competition and Consumer Protection Commission is now required for mergers, acquisitions, takeovers and business combinations in which the acquirer and the target combined are worth 500 million naira or more in terms of either turnover or assets. Until early 2019, this approval was given by the Securities and Exchange Commission. Mergers and schemes of arrangement are also required to be sanctioned by the Federal High Court. In addition, mergers, acquisitions and other forms of business arrangements concluded through schemes of arrangement are to be registered with the Corporate Affairs Commission (Nigeria's companies' registry) to become effective.

### III TRANSMISSION/TRANSPORTATION AND DISTRIBUTION SERVICES

### i Vertical integration and unbundling

### Petroleum

The NNPC is vertically integrated. Through its subsidiaries, the NNPC engages in exploration, production, processing, importation, transportation, distribution and retail of petroleum and petroleum products. IOCs and indigenous oil and gas companies also have control over exploration, production and transportation facilities in the petroleum industry. The downstream operations of IOCs in Nigeria are usually not integrated with the upstream operations of the group. In the exercise of statutory powers, the Minister may grant third parties access to pipelines to aid transportation of petroleum from the field or well to processing plants or terminals for export.

### Electricity

The Nigerian electricity industry was originally controlled by NEPA (the old, state-owned monopoly). NEPA controlled generation, distribution, transmission and trading of electricity. Through EPSRA, NEPA was unbundled into the Power Holding Company of Nigeria, 18 successor companies consisting of six Gencos, 11 Discos and the TCN. With the unbundling and subsequent privatisation of NEPA, EPSRA reduced vertical integration in the electricity sector with the aim of developing a competitive electricity market in Nigeria.

### ii Transmission/transportation and distribution access

### Petroleum

Petroleum is usually transported from the field and well through pipelines owned and operated by a holder of an oil pipeline licence. The licence holder has exclusive rights to use the land covered by the licence for the construction of a pipeline and ancillary installations required (e.g., pumping stations, storage tanks and loading terminals) for the conveyance of petroleum, and any substance (including steam and water) used or intended to be used in the production, refining or conveying of petroleum.

However, a third party may apply to the Minister for a right to use the pipeline constructed and operated by the licence holder. Before approving this use, the Minister must consult the applicant and the licence holder. The terms for the use of the pipeline are to be negotiated between the licence holder and the applicant. If the licence holder and the applicant fail to reach an agreement, the Minister may determine the terms. The Minister, if satisfied with the application for use of a pipeline, may serve a notice on the licence holder to secure the applicant's right to use the pipeline, regulate the charge payable and ensure that the applicant's right is not prevented or impeded.

The NGC owns, operates and maintains most gas pipeline facilities in Nigeria. There are other private participants who own gas pipeline facilities in Nigeria. Transportation and storage of gas are usually governed by gas transportation agreements. The NGC imposes terms and tariffs for gas transportation agreements. To boost the gas sector, the FGN in 2008 approved a Gas Master Plan Infrastructure Blueprint, which provides for the development of central gas processing facilities and gas transmission systems.

### Electricity

A captive power generator (generating electricity exceeding 1MW for, and that is consumed by, the generator itself, and not sold to a third party) requires the prior written consent of NERC before it can supply surplus power not exceeding 1MW to an offtaker. The captive generator holder must apply for a generating licence before it can supply power exceeding 1MW to an offtaker. Further, embedded power generators (generation of off-grid power to be evacuated through a distribution network to end users) with a capacity of more than 20MW are required to evacuate the power produced through the grid.

In respect of third-party access to transmission, transportation and distribution facilities in the electricity sector, owners and operators of these facilities are not obliged to provide third-party access. There are also no restrictions on the provision of third-party access. Therefore, third-party use of transmission, transportation and distribution facilities in the electricity sector is based on agreements between third parties and the owners or operators.

### iii Rates

### Petroleum

Under the PA, the Minister shall fix prices at which petroleum products may be sold in Nigeria. However, the Petroleum Products Pricing Regulatory Agency Act 2003 created the Petroleum Products Pricing Regulatory Agency to determine the pricing policy of petroleum products, regulate the supply and distribution of petroleum products and moderate volatility in petroleum product prices. Retail petroleum product prices were previously fully subsidised by the FGN. In May 2016, the FGN announced the removal of subsidy on petroleum products. Notwithstanding, the NNPC, as the major importer of petroleum products, had until recently borne the loss for the high landing cost of these products. However, as a result of the global crash in the price of crude oil in the international market, the Ministry of Petroleum and the NNPC announced plans by the FGN to stop subsidising petroleum products, to allow market forces determine prices.

The price of gas in the domestic market is regulated by the Domestic Gas Policy and the Gas Pricing Regulations. The Domestic Gas Policy defines the policy of the FGN in respect of the pricing of gas to be supplied to customers in the downstream gas sector. The Department of Gas, established under the Gas Pricing Regulations, shall establish the aggregate price that shall be used as a basis for gas supply to the domestic market.

### Electricity

NERC is responsible for creating tariff methodology in the electricity industry. In fixing the methodology, NERC is required to consider full cost recovery plus a reasonable return on investment, promotion of technology and market efficiency through incentives, fairness and openness to consumers, and the reduction or elimination of cross-subsidies. NERC established the Multi-Year Tariff Order (MYTO) for the electricity industry. The MYTO provides a 15-year tariff path for the electricity industry, with limited reviews each year to cover changes in a limited number of parameters (such as inflation and gas prices) and major reviews every five years. MYTO 2.1 was valid for the period 1 January 2015 to 31 December 2018. Effective 1 February 2016, NERC approved an amendment to the MYTO 2.1. MYTO 2015 is to remain in force until 31 December 2024.

The MYTO does not apply to embedded power. Embedded power is priced on a discrete basis to cover the cost of production and distribution with a margin added. Purchases of embedded power are also subject to open tender.

### iv Security and technology restrictions

The acquisition, promotion and development of technology in Nigeria are regulated by the National Office for Technology Acquisition and Promotion (NOTAP). NOTAP has regulatory oversight over all contracts for the transfer of foreign technology to Nigerian parties. The registrable contracts include use of trademarks and patented inventions; supply of technical expertise, detailed or basic engineering, machinery and plant; the provision of operating staff or managerial assistance; and training of personnel. Failure to register with NOTAP does not make a contract between a Nigerian and a foreign company for transfer of technology void or unenforceable, but NOTAP prohibits purchases of foreign currency from the foreign exchange market regulated by the Central Bank of Nigeria to make payments under an unregistered contract.

### **IV ENERGY MARKETS**

### i Development of energy markets

The first national utility company, the Nigerian Electricity Supply Company, was established in 1929, about 33 years after the first power generating station. From mainly hydroelectric and coal-sourced energy, Nigeria has developed to a multi-source generation market (though gas is now the dominant source). The industry initially had distinct generation and transmission operations; energy was produced by the Nigeria Dams Authority and sold to the Electricity Corporation of Nigeria for distribution to end users. These companies were integrated in 1972 to form NEPA, which was responsible for the generation, transmission and distribution of electricity, and the overall management and administration of the energy market.

With the reforms introduced by the National Electric Power Policy 2001 and EPSRA, the Nigerian Bulk Electricity Trading Plc (the Bulk Trader) was incorporated. The Bulk Trader is licensed to purchase grid electricity in bulk from the Gencos and other independent power generation companies for resale to the Discos until the market is fully competitive and the Discos achieve self-sufficiency. This arrangement is backed by financial assistance in diverse forms from both Nigerian and international governments. Another significant milestone in the energy market occurred when the National Integrated Power Project power plants built by the FGN were sold to private investors to encourage competition in the market.

### ii Energy market rules and regulation

The energy market is regulated by NERC, which is responsible for rule-making and the licensing of market operators. The rules in force govern the different stages the industry is expected to undergo; the pre-transition, transitional and medium stages. The pre-transitional stage involves the unbundling of NEPA, the old, state-owned monopoly. Trading arrangements in the transitional and medium stages are, and will be, through contractual arrangements, and the market is expected to be centrally administered and fully competitive.

### iii Contracts for sale of energy

The applicable documentation for sale of energy will generally depend on the stage of the market in force. The Bulk Trader, as the major purchaser of on-grid power, has its standardised bulk power purchase agreements for electricity offtake from the Gencos. Vesting contracts are used for the resale of electricity by the Bulk Trader to the Discos.

For natural gas sales, gas aggregation agreements are typically used for domestic supply obligation gas (gas that producers of petroleum in Nigeria must sell locally and not export), while gas sale agreements are used for non-domestic supply obligation gas. Increasingly, private producers are developing their own standard form gas sale agreements. Template alternative energy supply agreements are also available for renewable energy projects and other off-grid power sources. For the transmission and delivery of evacuated electricity, the TCN enters into grid connection agreements and transmission use of system agreement.

### iv Market developments

NERC has continued to grow and reform the electric sector. It grants generation licences to investors with both on-grid and off-grid intentions. Embedded generations are now popular and have been embraced by independent generators and the Discos. Some of the ready-made National Integrated Power Project plants that were privatised are still working to fix shortcomings in their facilities while others are working to instal additional capacity. NERC issued the Mini-grid Regulation 2017 to regulate the generation and distribution of electricity with installed capacity of 1MW or less in unserved and underserved areas independent of the national grid. NERC also issued the Meter Asset Provider Regulation 2018 (the MAP Regulation) to provide for the supply, installation and maintenance of end-user meters by other parties (approved by NERC) other than the Discos. The MAP Regulation is expected to close the metering gap through accelerated meter rollout and to encourage the development of independent and competitive meter services in the Nigeria electricity market.

The transitional stage of the electricity market, whereby wholesale buying and selling of electricity is based on contractual arrangements subject to regulatory rules, took off in February 2015. When this stage of the market is fully in force and effect, it is expected that there will be greater investment certainty triggering investors' interest and growth of the market. NERC's MYTO 2015 is also in place to govern electricity pricing for both individual and industrial users. The next stage of the electricity market, the medium stage, will involve the cessation of the Bulk Trader, and the Bulk Trader novating to the Discos the power procurement contracts it entered into with the Gencos. At this stage, the Discos will purchase power directly from the Gencos and other independent power generation companies for onward sale to end users.

### V RENEWABLE ENERGY AND CONSERVATION

### i Development of renewable energy

The clamour for renewable energy arose in Nigeria as a result of increased awareness of the environmental effects of fossil-based generation. It was not until 2006 that the actual need for sustainable energy can be said to have been recognised by the FGN with the formulation of a renewable energy plan as part of its national energy policy to depart from a monolithic fossil-fuel economy to one driven by an increasing share of renewable energy in the national energy mix.

The FGN, NNPC and NERC have encouraged the exploration and development of renewable energy in Nigeria because of the wide range of renewable natural resources (such as hydro power, solar, wind, geothermal, biofuel). A Renewable Energy Division was created at the NNPC to develop renewable energy initiatives. Through its Renewable Energy, Research and Development Division, NERC developed the feed-in-tariff regulations for renewable energy-sourced electricity to further support the aim of generating 2,000MW of renewables-sourced electricity by 2020 and to encourage favourable pricing for this electricity. NERC also grants licences for renewable power generation, such as solar and coal. The Nigerian Biofuel Policy and Incentives 2007 (which specifies a plan to produce biofuel primarily for thermal and power generation) includes several exemptions from withholding tax, capital gains tax, value added tax and custom duties. There are several renewable energy projects at various stages of implementation in Nigeria. In fact, roads in numerous urban areas are lit or powered by solar sourced energy. There also have been several intervention funding programmes for renewable energy projects in Nigeria. There are several ongoing small-scale off-grid renewable energy projects sponsored by the World Bank, the Association of Bilateral European Development Finance Institutions and other development finance institutions in Nigeria. Further, some IOCs in Nigeria have undertaken programmes to support access to clean energy in Nigeria.

### ii Energy efficiency and conservation

Efficiency and conservation are still poorly advanced despite the inclusion of basic policies and strategies in the national energy policy and the energy master plan. However, there are no definitive codes and regulations for energy efficiency and conservation. The Federal Ministry of Environment's renewable energy programme unit has introduced initiatives to address the need to source and deploy sustainable energy sources.

The ECN established the National Centre for Energy Efficiency and Conservation. This Centre is responsible for organising and conducting research and development in energy efficiency and conservation, and has conducted studies into promoting energy-efficient appliances and light bulbs. Further, the ECN, in partnership with the Cuban government and with support from the Economic Community of West African States, has advanced the use of compact fluorescent lamps.

In addition, NERC has expressed its intention to develop energy efficiency labelling standards for domestic appliances and energy efficiency standards for luminaires, air-conditioning units and other household appliances. Currently, energy-saving equipment, such as high-efficiency voltage controllers and energy-saving home appliances, is now more readily obtainable on the Nigerian market.

### iii Technological developments

Technological development in Nigeria is significantly slower than it should be. There are indications, however, that some Discos have signed memoranda of understanding to formalise agreements with the United States Trade and Development Agency (USTDA) to promote smart-grid solutions for Nigeria's transmission and distribution challenges. So far, the USTDA has funded at least three power projects in Nigeria. The USTDA has also assisted in training some Disco staff in the use of technology to better manage their operations.

### VI THE YEAR IN REVIEW

### i Petroleum

Recently, there has been an unprecedented fall in the international price of crude oil. This coupled with the global coronavirus pandemic, has resulted in a drop in crude oil production. Some operators of oil acreage in Nigeria are still struggling to settle outstanding debt service obligations. To stay afloat, some of these companies have resorted to debt refinancing and, in some cases, limited equity injection.

With the global crash in the price of crude oil on the international market, the FGN (through the NNPC) has stopped subsidising petroleum products. The Ministry of Petroleum and the NNPC announced plans by the FGN to stop subsidies on petroleum products to allow market forces to determine prices.

In the past, the NNPC, as the largest importer and supplier of petroleum products in the market (more than 90 per cent), bore the costs of under-recoveries of petroleum products caused by the high landing costs. With the drop in oil price, oil marketers are to resume importation and sale of petroleum products to end users.

In a move towards revamping the Nigerian petroleum industry, the FGN approved two major policies for the sector in 2017: the National Gas Policy 2017 and the National Petroleum Policy 2017. As a follow-up to these policies, the President of Nigeria, in his capacity as the Minister of Petroleum Resources, issued the Flare Gas (prevention of Waste and Pollution) Regulations 2018 (the Flare Gas Regulation). The aim of this Regulation is to implement the Nigerian Gas Flare Commercialisation Programme launched in 2016. The Flare Gas Regulation, among other things, creates the framework for preventing the waste of gas, creation of social and economic benefits from gas production and disincentivising of gas flaring. To strengthen the FGN commitment to focus on gas, the NNPC signed agreements on the Seven Critical Gas Development Projects. These landmark projects are expected to bring on line 3.5 billion standard cubic feet of gas (3.5 bcf) per day, and generate at least 15,000MW of electricity by 2021.

Finally, the Petroleum Industry Governance Bill is currently pending before the National Assembly.

### ii Electricity

Within the year in review, the FGN signed an implementation agreement for the Nigeria Electrification Road Map with Siemens (the Road Map). The Road Map, which comprises three phases, is aimed at resolving the existing challenges in the power sector. The Road Map covers the upgrading and expansion of the infrastructure across the various value chains in the power sector – generation, transmission and distribution.

During the past year, despite the call for a review, NERC has continued to implement the MYTO 2015 electricity tariff that became effective as of 1 February 2016. The tariff, which eliminates all forms of fixed charges, has been criticised as not reflecting costs. On 19 August 2019, NERC issued its 2016–2018 Minor Review of MYTO 2015 and the Minimum Remittance Order for the year 2019 (the First Review) effective from 1 July 2019. This is the first minor review of the MYTO 2015 by NERC since it took effect in February 2016. The First Review was replaced on 31 December 2019 by the Minor Review of MYTO 2015 and the Minimum Remittance Order for the year 2020 (the Second Review). The Second Review took effect from 1 January 2020. The two Reviews were based on the following variables: inflation, exchange rate, the US rate of inflation and gas price. The available generation capacity between 1 January 2016 and 31 December 2018 was also taken into consideration in the First Review while the available generation capacity as at 31 October 2019 was considered in the Second Review. The Reviews made projections for the year 2019 and beyond. They also provided minimum remittance thresholds by the Discos to the Bulk Trader and the market operator under the vesting contracts.

There has been greater awareness of the MAP Regulation during 2019, with improvement in the deployment of pre-paid meters under the Regulation. The MAP Regulation is designed to bridge the widening end-user metering gap in Nigeria's electricity supply industry, with the goal of eliminating estimated billing. Through the Regulation, the Discos ceased to have the exclusive right to the metering of end users. Under the Regulation, a new class of operators, meter asset providers, shall be responsible for the provision, installation, maintenance and replacement of meters. However, the meter asset providers are expected to liaise with the relevant Discos to ensure compliance with industry standards in the provision of metering services.

### VII CONCLUSIONS AND OUTLOOK

With the crash in crude oil price, there have been calls from various stakeholders that the FGN should pursue an active diversification policy to move the Nigerian economy away from its dependency on oil revenues. Following these calls, there are ongoing plans for a massive reform of the Nigerian oil and gas industry.

The FGN is expected to continue with electricity industry reforms. Some observers think that the current administration will deregulate and privatise the power transmission business (which is under the control of the TCN wholly owned by the FGN) to attract more foreign direct investment in the electricity industry and enhance competition in the electricity market. There is, as yet, no express communication from the FGN that any fundamental changes will be made to the electricity sector.

On 17 April 2019, NERC published a consultation paper calling for comments, options, objections and representations on the regulatory framework for electricity distribution franchising. The proposed franchising regulation seeks to allow Discos to grant franchises to third parties to undertake specific Disco roles within the coverage areas. When finalised, the regulation is expected to bridge power supply deficit, improve customer satisfaction, provide better service and improve investments in Disco networks. With multiple intervention funding programmes for renewable energy available, it is expected that there will be many more renewable energy projects in Nigeria. Pursuant to (1) NERC's Order on the Transition to Cost Reflective Tariffs in the Nigerian Electricity Supply Industry, which took effect on 1 April 2020 and (2) the FGN's updated Power Sector Recovery Programme, there are ongoing plans to implement an increase in electricity tariffs by 30 June 2020. The plan is to transition to a fully cost-reflective tariff by the end of 2021. Ahead of this, Discos are expected to submit performance improvement plans and to put in place procedures for improved and better service delivery to end users.

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Professor Gbolahan Elias is the presiding partner of G Elias & Co, one of Nigeria's leading business law firms. He is also a visiting professor of law at Babcock University, Ilishan, where he teaches shipping, petroleum and arbitration law. He has published widely on a range of both historical and topical legal matters and has served on numerous law reform committees, university administration boards and law journal editorial boards.

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