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Nigerian Power Sector: Opportunities and Challenges for Investment in 2016

A summary of the existing power sector in Nigeria, current key initiatives, and opportunities and challenges for developers, investors and lenders.

Introduction*

During the launch of Power Africa in 2013, President Barack Obama declared "Access to electricity is fundamental to opportunity in this age. It's the light that children study by; the energy that allows an idea to be transformed into a real business. And it's the connection that's needed to plug Africa into the grid of the global economy. You've got to have power."

Since our last bulletin on this topic in February 2011[1], the Nigerian electrical power sector remains in need of significant investment as its utility-scale electricity generation capacity continues to fall short of meeting domestic demands. Currently, Nigeria has an installed electricity generation capacity[2] for supply to the national grid of 12,522MW[3], with available capacity of only approximately 4,500 MW[4], to meet the needs of Nigeria's population of more than 170 million and a country with a GDP growth rate of 7%[5]. In comparison, South Africa has an installed electricity generation capacity for supply to the national grid of approximately 50,000 MW with a population of only about one-third the size of Nigeria's[6].

At the end of January 2016, the demand for electricity in Nigeria was estimated to be 12,800 MW[7]. The historic gap between the demand for power in Nigeria and the electricity available from the grid has led to widespread self-generation of power in the commercial, industrial and residential sectors; many individuals and businesses own their generators to compensate for lack of access to and supply of energy[8]. Businesses' reliance on self-generation via diesel-powered generators has resulted in not only environmental impacts that using cleaner fuels could reduce, but also in an increase of the price of goods and services. This is because, typically, self-generation accounts for a significant portion of most businesses' recurrent expenditure[9]; such significant overhead costs are clearly being passed onto consumers. The historically low level of investment in Nigeria's power sector has been a significant barrier to private investment in the country[10].

The National Electric Power Policy (2001) and the Electric Power Sector Reform Act, 2005 (the 2005 Reform Act) constitute the framework under which fundamental reforms to the power sector in Nigeria were enacted over a decade ago. These reforms included the dissolution of the National Electric Power Authority (NEPA), the creation of the Power Holding Company of Nigeria (PHCN) as a new holding company and the unbundling of the PHCN into a series of 18 successor companies – six generation companies, 11 distribution companies and a national power transmission company. The privatization of the defunct PHCN's successor companies, which commenced in December 2010, is now complete. The

Federal Government of Nigeria (FGN), however, has retained ownership of the Transmission Company of Nigeria, which Manitoba Hydro International, a wholly-owned subsidiary of an electric and natural gas utilities Canadian company, is managing on behalf of the FGN. While the privatization of the PHCN successor companies has been completed, the second phase of privatization, currently underway, relates to the sale of 10 government-owned independent power projects, called National Integrated Power Projects (NIPPs), the process for which commenced in 2013[11]. The FGN conceived the NIPPs as a fast-track public sector-funded initiative to add significant new generation capacity to Nigeria's electricity supply system. The FGN has indicated it will retain 20% of NIPP assets. This process has, however, been stalled for various reasons including gas shortage, drawn-out negotiations, court actions and delays in executing gas supply agreements, which have all affected the project's bankability as the banks and investors are reluctant to invest either debt or equity into the project given the high level of uncertainty and risks.

This *Client Alert* provides an updated summary of the existing power sector in Nigeria, as well as key aspects of the results of recent privatization, and proposed further changes or key initiatives. The conclusion considers the opportunities and challenges for developers, investors and lenders in becoming involved in the reformed Nigerian power sector, either through participating in the privatization of existing Nigerian power assets or as part of a greenfield independent power project (IPP).

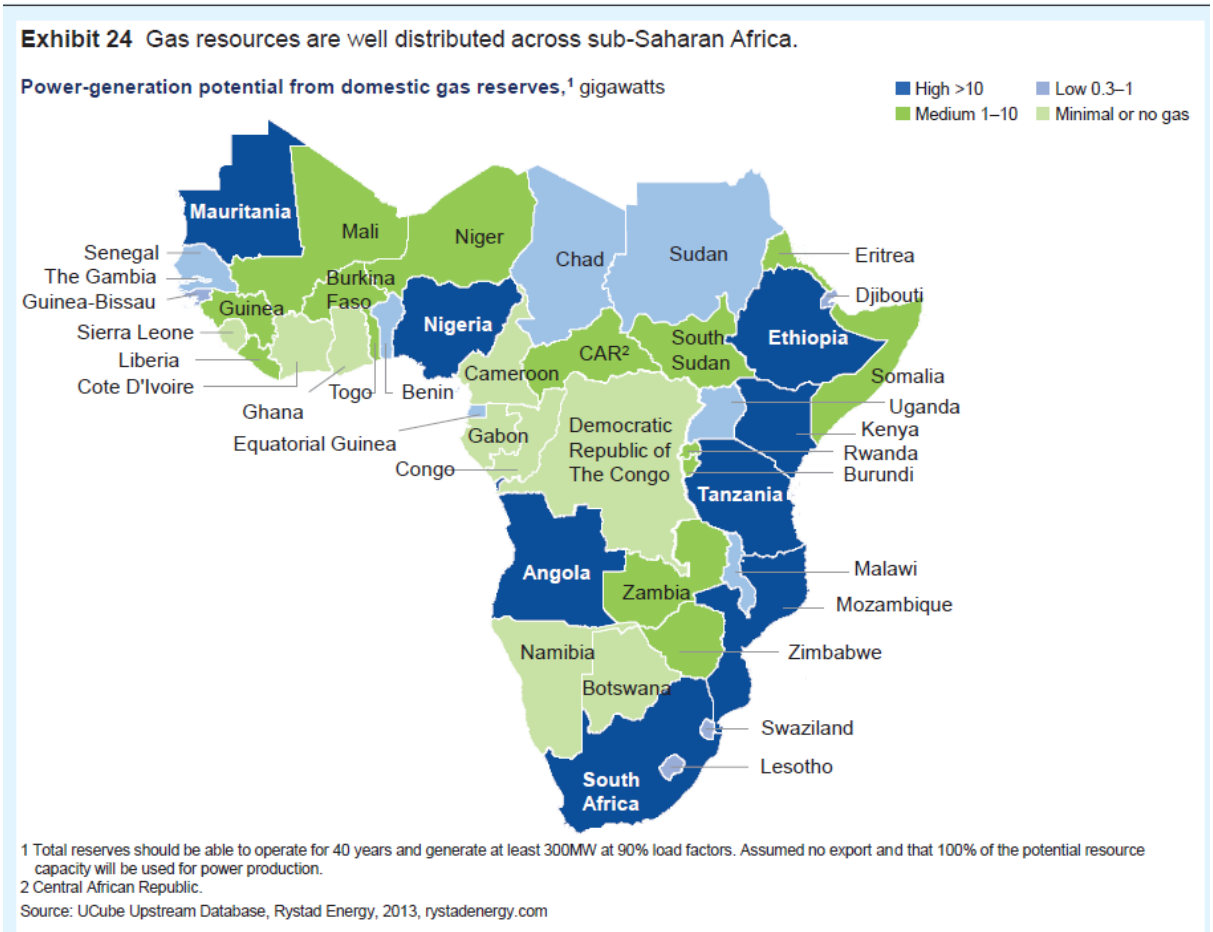
*Latham & Watkins would like to thank the Nigerian law firm **TEMPLARS** for its input on the topics discussed in, and review of the Nigerian law aspects of, this *Client Alert*.

Part A - Snapshot of Nigeria's Power Sector

Nigeria Power Today

In Nigeria, the average annual per capita power consumption, only 155 kWh, is among the lowest in the world[12]. In 2015, much of Nigeria's installed capacity was unavailable[13]. Nigeria's estimated available capacity from the grid of approximately 4,500 MW meets only approximately one-third of the estimated current demand for power from the grid. According to the Chairman of the Nigeria National Committee of the World Energy Council, planning experts estimate that for the Nigerian economy to grow at a rate of 10%, the country's electricity requirement must reach 30,000 MW by 2020, and 78,000 MW by 2030[14]. To therefore improve the economy's current GDP growth and reduce the current electricity supply gap, market intervention and fundamental power sector reform are vital.

Current electricity generation is primarily from either gas-fired or hydro power plants, with natural gas the main fuel source for power generation in Nigeria. According to McKinsey in 2013, the power-generation potential from domestic gas reserves in Nigeria was greater than 10,000 MW, which is relatively higher than the potential from domestic gas reserves in other African jurisdictions, but still falls significantly short of meeting the levels referenced above.

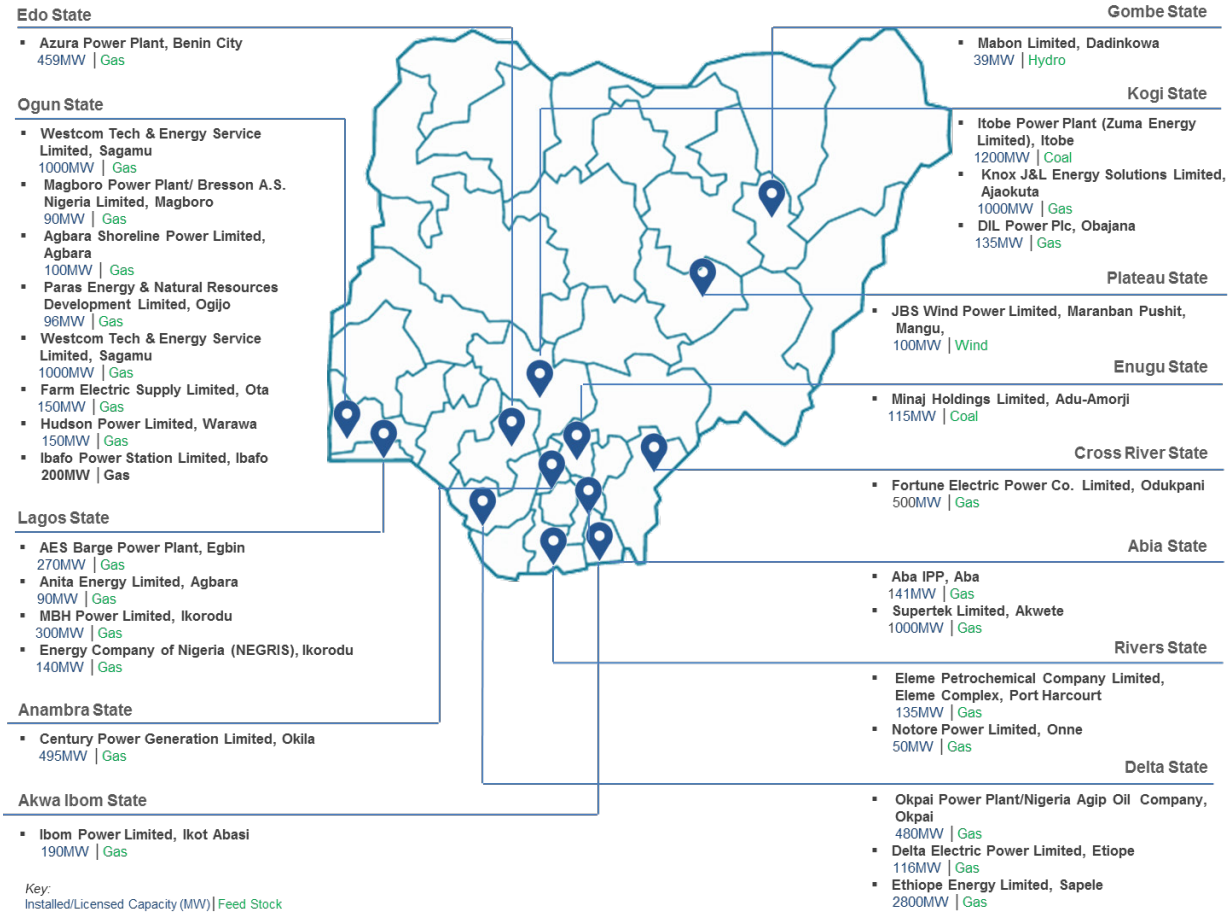


*Source: *McKinsey* – Report titled "Electric Power & Natural Gas - Brighter Africa: The growth potential of the Sub-Saharan electricity sector," February 2015.

Natural gas aside, the Nigerian power sector achieved a significant milestone in coal-fired power with Zuma Energy Nigeria Limited recently executing its first power purchase agreement (PPA) with the Nigerian Bulk Electricity Trading Company (NBET) for construction of a 300 MW coal power plant in Kogi State, based in the North-Central region of Nigeria. The 300 MW plant is reported to be the first phase of the 1200 MW coal fired power plant Zuma Energy will develop. In addition to these conventional fuel sources, according to McKinsey, Mauritania, Nigeria and South Africa have further potential in shale gas (about 62,000 MW) and coal-bed methane (3,000 MW)[15]. There has also been a recent upsurge in interest in solar power projects in Nigeria. As at 10 November 2015, NBET indicated that it was negotiating a total of around eight PPAs with solar power developers whose projects are at different phases[16].

The power sector has elicited high investment interest since privatization, and many developers have secured generation licenses from NERC (as defined in the table below). However, due to varied reasons including securing financing, none of the greenfield IPPs have commenced operations.

The chart below illustrates the current IPPs in Nigeria.*



*Source: NIGERIAN ELECTRICITY REGULATORY COMMISSION

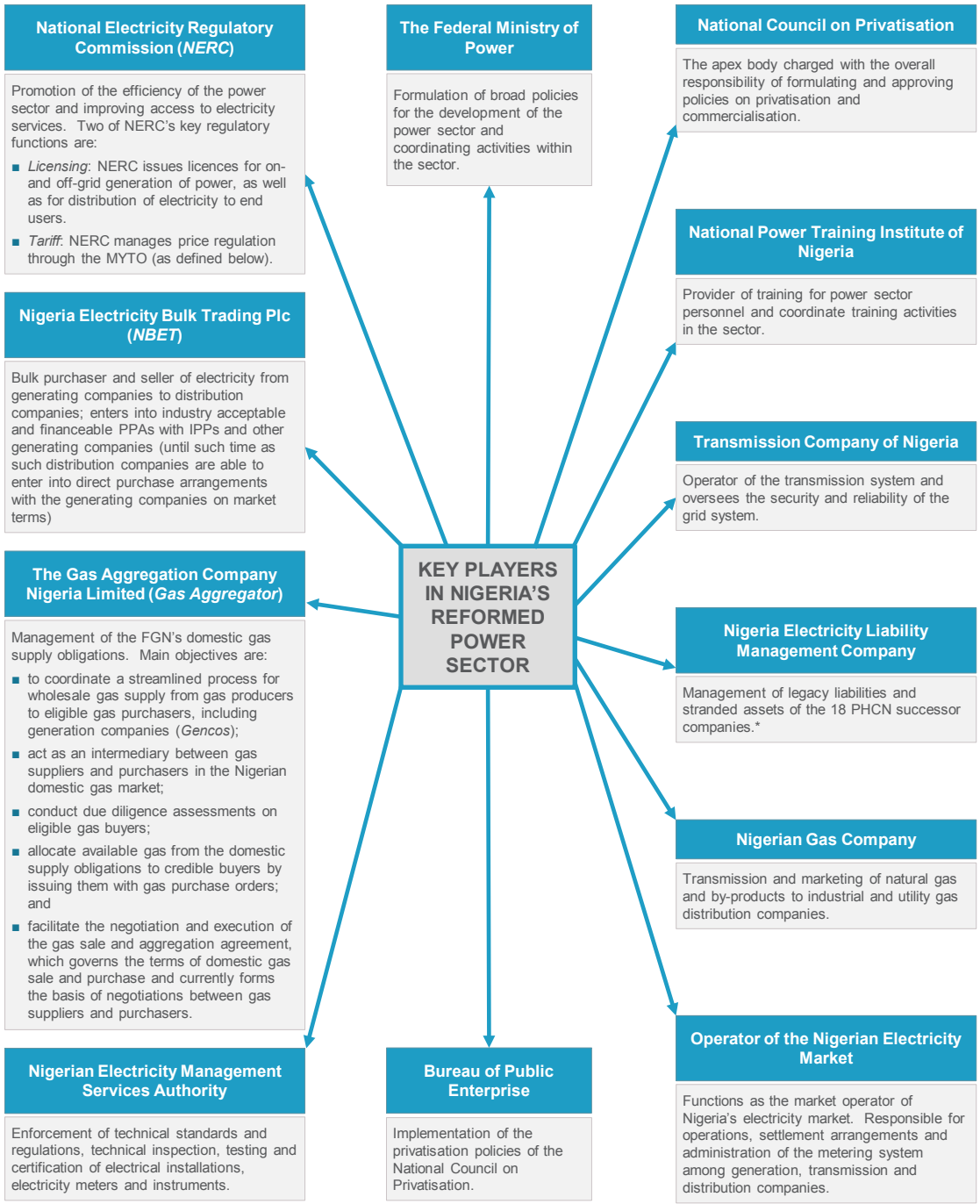
Save for the NIPP assets in which the FGN has indicated it will retain 20% equity interest and the FGN's full equity ownership of the transmission assets, the FGN has no direct equity interest in Nigeria's power assets. The chart below set forth the current NIPPs in Nigeria.

	Name of Generation Company	Location	Design Capacity (MW)
1.	Egbema Generation Company Limited	Near Owerri, Imo State	381
2.	Gbarain Generation Company Limited	Near Yenagoa, Bayelsa State	254
3.	Geregu Generation Company Limited	Ajaokuta, Kogi State	506
4.	Benin Generation Company Limited	Ihovbor, Benin City, Edo State	508
5.	Omoku Generation Company Limited	Near Port Harcourt, Rivers State	265
6.	Omotosho Generation Company Limited	Okitipupa, Ondo State	513
7.	Ogorode Generation Company Limited	Sapele, Delta State	508
8.	Calabar Generation Company Limited	Calabar, Cross River State	634
9.	Olorunsogo Generation Company Limited	Olorunsogo, Ogun State	754
10.	Alaoji Generation Company Nigeria Limited	Near Aba, Abia State	1131

*__Source__: http://www.nipptransactions.com/ndphc-generating-companies/alaoji-power-plant/ and http://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=260866608

Key Players

The chart below summarizes the current key players in Nigeria's reformed power sector.



Key Players in Nigeria's Reformed Power Sector[17]	
Key Players	Function
The Federal Ministry of Power	Formulate broad policies for developing the power sector, and coordinate activities within the sector.
National Electricity Regulatory Commission (NERC)	• Promote power sector efficiency and improve access to electricity services. Two of NERC's key regulatory functions are:Licensing: NERC issues licenses for on- and off-grid generation of power, as well as for distribution of electricity to end users. • Tariff: NERC manages price regulation through the MYTO (as defined below).
Nigeria Electricity Bulk Trading Plc (NBET)	Bulk purchaser and seller of electricity from generating companies to distribution companies; enters into industry acceptable and financeable PPAs with IPPs and other generating companies (until such distribution companies can enter into direct purchase arrangements with the generating companies on market terms)[18].
The Gas Aggregation Company Nigeria Limited (Gas Aggregator)	Manage the FGN's domestic gas supply obligations. Main objectives are: • To coordinate a streamlined process for wholesale gas supply from gas producers to eligible gas purchasers, including generation companies (Gencos) • Act as an intermediary between gas suppliers and purchasers in the Nigerian domestic gas market • Conduct due diligence assessments on eligible gas buyers • Allocate available gas from the domestic supply obligations to credible buyers by issuing such buyers with gas purchase orders • Facilitate the negotiation and execution of the gas sale and aggregation agreement, which governs the terms of domestic gas sale and purchase, and currently forms the basis of negotiations between gas suppliers and purchasers
Nigerian Electricity Management Services Authority	Enforce technical standards and regulations, technical inspection, testing and certification of electrical installations, electricity meters and instruments.
National Power Training Institute of Nigeria	Provide training for power sector personnel and coordinate training activities in the sector.

Key Players in Nigeria's Reformed Power Sector[17]	
Key Players	Function
Bureau of Public Enterprises	Implement the privatization policies of the National Council on Privatization.
National Council on Privatization	The apex body charged with the overall responsibility of formulating and approving policies on privatization and commercialization.
Transmission Company of Nigeria	Operate the transmission system and oversee the security and reliability of the grid system.
Nigeria Electricity Liability Management Company	Manage legacy liabilities and stranded assets of the 18 PHCN successor companies.
Nigerian Gas Company	Transmit and market natural gas and by-products to industrial and utility gas distribution companies.
Operator of the Nigerian Electricity Market	Functions as the market operator of Nigeria's electricity market. Responsible for operations, settlement arrangements and administration of the metering system among generation, transmission and distribution companies.

The End-user Tariffs

NERC introduced the Multi-Year Tariff Order (MYTO) in 2008, which was later amended in 2012 as MYTO II. MYTO provides a 15-year tariff path for the electricity industry with minor reviews each year in light of certain parameters (including inflation, exchange rate and gas prices). Major tariff reviews are to be conducted every five years and are intended to consider input from all stakeholders, including investors. On 18 December 2015, NERC published a new set of tariffs for distribution companies for years 2015-2024. The new tariffs, which become effective on 1 February 2016, require end-users in different locations and categories to pay different amounts for each kWh.

MYTO is used to set wholesale and retail prices in the Nigerian electricity market, and is based on the following principles and assumptions[19]:

- Cost recovery/financial viability
- Signals for investment
- Certainty and stability
- Efficient use of the network
- Allocation of risk
- Simplicity and cost-effectiveness
- Incentives for improving performance
- Transparency/fairness

- Flexibility/robustness

- Social and political objectives

Ongoing Key Initiatives

The FGN has expressed its deep commitment to the power sector reforms the previous government initiated, and has indicated its willingness to introduce measures to sustain private sector investments and address extant challenges in the power sector.

Key features of the current measures being implemented include:

- **Presidential Task Force on Power**

The President Goodluck Jonathan administration established The Presidential Task Force on Power (the PTFP) in June 2010 to drive reform of Nigeria's power sector. The PTFP acts as a collaborative force bringing together all of the agencies that have a role to play in removing legal and regulatory obstacles to private-sector investment in the power industry. The PTFP monitors the planning and execution of various short-term projects in generation, transmission, distribution and fuel-to-power that are critical to meeting the stated service delivery targets of the power reform objectives set out in the August 2010 roadmap (Roadmap for the Power Sector Reform)[20]. PTFP efforts to date include:

  - Conducting a nationwide wheeling capacity stress test in October 2012 to determine the actual distribution uptake capability in the country, leading to the development of a number of capacity update projects

  - Completing development of a short-to-medium term transmission grid rehabilitation and upgrade plan in partnership with the Transmission Company of Nigeria and the Federal Ministry of Power

  - Full and complete recovery of abandoned imported power equipment at major ports and container depots in the country

  - Coordinating the development and implementation of the Transitional Maintenance Intervention Funding Scheme (TMIFS) to provide funding to distribution companies (Discos) and Gencos in the transition period between the purchased Discos and Gencos' sale and such companies' handover to the private sector. The TMIFS was developed to address urgent maintenance issues, which would otherwise affect service delivery quality and supply reliability during this transition period due to insufficient funding

  - Designing and launching the April 2013 Presidential Power Reform Transactions Signing Summit in collaboration with the Ministry of Power, to showcase the execution of groundbreaking contractual agreements in the power sector, such as NBET's greenfield PPA with Azura Power West Africa Limited, and the World Bank Partial Risk Guarantee supporting the Gas Supply Agreement between Chevron Nigeria Limited and Egbin Power plc

  - Engaging in ongoing interactions with the regulators and key stakeholders to maintain commercialization, reform momentum and industry preparation for entry into the Transitional Electricity Market (TEM). Nigeria's TEM, the first private power market in Africa, constitutes the second stage of the phased power sector reform for the country's electricity market. Prior to TEM, market participants operated on a best endeavor basis without recourse to the existing industry contracts. With TEM's commencement in 2015, contractual parties will now operate under the

Market Rules and the Grid Code, trade on the basis of industry agreements, and remain committed to their contractual obligations. This will culminate into an efficient, competitive, transparent and reliable market for the sale and purchase of wholesale electricity and ancillary services[21]. The introduction of TEM is also significant as it establishes the enabling environment and fiscal framework designed to help reduce the liquidity challenges in the power sector, and attract further investment

- Improving gas and power network coordination through conferences conducted with the Transmission Company of Nigeria and the Nigerian Gas Company

- **Effectiveness of Market Rules and Grid Code**

While there are no currently proposed reforms regarding NBET's existing on-sale arrangement with the Discos, the TEM (described above) has introduced new rules for Gencos and Discos. For example, with the TEM Market Rules effective from 1 February 2015, Discos are now required to remit 100% of energy and capacity payments to avoid activating their payment security in favor of buyers, while Gencos and NBET must honor their contractual obligations in accordance with TEM rules. Prior to the TEM, Discos operated baseline remittance where revenue generation and power received determined their remittances.

- **Power and Airline Intervention Fund**

In 2010, the Central Bank of Nigeria announced the establishment of an NGN 300 billion Power and Airline Intervention Fund to foster investment in the power and aviation sectors in Nigeria[22]. The Nigerian Bank of Industry manages the fund — described as providing a meaningful source of funds to players in the Nigerian power sector — which is disbursed through commercial banks for on-lending at a concessionary "all-in" interest rate of not more than 7% and for a tenor of 10-15 years. The Power Intervention Fund facility amount cannot be more than 70% of the total cost of the relevant power project. The African Finance Corporation continues to serve as technical adviser to the fund[23]. A number of industry players currently have strong commitments from the Bank of Industry, and have in fact signed loan agreements for the disbursement of monies from the fund. At least one greenfield IPP is publicly known to have drawn down several billions of Naira from the fund for the project's development.

- **The US Initiative "Power Africa"**

The Power Africa memorandum of understanding, which FGN and the US Government executed on 24 July 2014, features commitments by both countries to improve power generation in Nigeria. The US-proposed plans of support include funding commitments to power projects in Sub-Sahara Africa and specific financing support of US$28 million to Nigeria for power sector privatization, gas sector reform and development of renewable energy electricity generation, as well as at least US$3 million to support gas-fired independent power production and modernization of the electricity distribution sector[24].

Since its inception, Power Africa has supported the development of Nigeria's power sector through credit enhancements, grants, technical assistance and investment promotion mechanisms. In conjunction with its partners including African governments, the World Bank, multilateral agencies, governmental agencies and over 100 private companies, the initiative has provided political risk insurance for project loans. The initiative has also provided Nigerian banks financing for on-lending to privatized generation and distribution companies, to support capital expenditure and improve operational efficiencies. For example, in 2014, Power Africa, in association with Guarantco, partnered with Standard Chartered Bank to make critical lending available to the privatized Discos and Gencos for capital expenditures[25].

Part B - Opportunities and Challenges for Investment

In part through the efforts discussed above, Nigeria has been able to increase its electricity generating capacity from about 2,000 MW in 1999 to about 4,500 MW in 2013. In addition, the FGN has reportedly spent around US$31.45 billion on the sector from 1999 to 2013[26]. However, the potential in Nigeria's power sector remains vast, and therefore, interest remains in investing in different parts of the chain value.

In a post-privatization world, some of the main challenges investors face include:

- Insufficient gas supply due to poor gas infrastructure
- Cost-unreflective tariff regime
- Obsolete transmission line assets and power sub-stations
- Non-bankable gas supply agreements
- Changes in government and uncertainties as to the future direction of government policies
- Bureaucracy of government agencies
- Lack of affordable long-term funding
- Foreign exchange and currency issues
- Vandalism of power plants, equipment and transmission lines

Specific Opportunities and Challenges

License Duration

The 2005 Reform Act and NERC regulations provide for a generation license to have a duration of 10 years, renewable for a further five years. While this timeframe aligns with the total duration of the uniform tariff the MYTO has envisaged, a total license duration of 15 years may present challenges to potential investors and their lenders given that such a 15-year period likely is well short of the useful life of the assets involved, either in a privatization of the NIPP assets or in an IPP transaction.

In 2011, NERC representatives stated during the Nigeria Power Sector Investment Forum in London that NERC would address concerns surrounding the duration of licenses by granting a further 10-year license towards the end of the initial 10-year license (such second 10-year license would then be followed by a five-year renewal option) resulting in a 25-year total license period. NERC representatives indicated that so long as the operator was compliant with its license obligations, the second 10-year license and the subsequent five-year renewal license would be granted automatically. Since then, in order to comfort financiers and contracting parties engaged in long-term power projects, NERC has indeed emphasized this position through public notices[27], and has, in at least one instance, provided a comfort letter to a licensee indicating license renewal for a further term if the licensee maintains the license's terms and conditions and pays the requisite fees. Following a license audit process concluded in July 2015, NERC requested that non-performing licensees (including licensees not complying with their reporting obligations to NERC) provide substantial justification against revocation of their licenses, failing which NERC will revoke the licenses within a period of 30 days to 12 months from the notice's issuance. Notwithstanding this ultimatum however, to date, NERC has yet to publicly announce any license revocations.

Fiscal Incentives for the investors

Pioneer status is available to companies involved in independent power generation using gas, coal and renewable energy sources under the Industrial Development (Income Tax Relief) Act 2004, the legislation primarily geared at attracting foreign investment in Nigeria[28]. Under this Act, the FGN can grant pioneer companies a tax holiday of an initial three-year period, renewable for an additional two-year period[29]. Pioneer companies eligible for these fiscal benefits include businesses involved in providing utility services, information and communications technology, real estate development and tourism, among others.

One significant task before the current FGN is the Gas Master Plan (GMP), including applicable fiscal terms for gas utilization[30]. Even though many of these gas utilization fiscal incentives predate the GMP's actual adoption, such fiscal incentives remain relevant with respect to investments in both associated gas and non-associated gas. These fiscal incentives include (without limitation)[31]:

- As an alternative to the tax-free period, additional investment allowances of 35%
- Accelerated capital allowances following the tax holiday (an annual allowance of 90% and an additional investment tax allowance of 15% for certain qualifying capital expenditures)
- Tax-free dividends during the tax holiday
- Tax-deductible interest on loans (with prior ministerial approval)
- VAT-exemption for plant, machinery and equipment purchased for utilization of gas in downstream petroleum operations

In addition, the law exempts from customs duties any machinery, equipment or spare part an industrial establishment has imported into Nigeria for its operation, if such establishment is engaged in exploration, processing or power generation through the utilization of Nigerian gas.

Renewable Energy

With respect to the renewable energy market, the FGN introduced feed-in tariffs (FIT) as a tariff regulatory mechanism to accelerate investment in renewable energy sources. The FIT regime guarantees a stable price for electricity generated from renewables for a fixed duration, thereby securing adequate returns on investment. In 2015, NERC approved new regulations that aim to (a) promote investments in renewable energy sources and (b) generate at least 2,000 MW of electricity by 2020. The regulations anticipate that electricity distribution companies will obtain 50% of the projected electricity generated from renewables, and NBET will procure the remainder. The regulations will apply to qualifying renewable energy-sourced electricity of capacity between 1 MW and 30 MW; larger renewable plants will require additional conditions to those already specified in the regulations[32].

Credit Support

World Bank Group partial risk guarantees, MIGA termination guarantees and other certain financial institution guarantees have sometimes been available to appropriate projects in the Nigerian power sector. This has afforded investors some additional credit support that can underpin the country's risk and may determine such investors' final investment decision. Some believe the recently introduced restrictions relating to the FGN's right to waive sovereign immunity will discourage the World Bank from continuing to provide support. However, despite issues surrounding Nigerian sovereign immunity, the World Bank provided a partial risk guarantee for the Azura project (referred to above).

In addition to agreeing to World Bank partial risk guarantee and MIGA guarantee arrangements, the FGN has also entered into put/call option agreements with power project developers. Under the agreements, the FGN will acquire the power plant (through a call option) or the project company will require the FGN to acquire the power plant (through a put option) in the event of an early termination of the PPA arising from circumstances not attributable to the project's fault. Under this arrangement, depending on the option exercised and the basis of such termination, the project company would be in a better position to pay for equity reimbursements and/or outstanding debt obligations owed to its financiers.

Cost Reflective Tariff — But Remains Subject to Periodic Review and Modification

MYTO II is intended to be a more cost-reflective version of MYTO I, and NERC developed MYTO II, among other reasons, to recognize there were potential investors entering the market with fuel sources other than natural gas (*e.g.*, wind, solar and coal), which MYTO I did not originally envisage. While MYTO II and its amendments present appealing and improved characteristics compared to those of MYTO I, investors continue to call for improvements.

PPA Counterparty and Duration

NBET's establishment has provided investors with a degree of certainty in managing PPA counterparty risk (especially in circumstances where credit support is provided in respect of NBET's offtake obligations). However, a transition to a wholesale market has always been the FGN's ultimate objective, and plans for such a transition (including with respect to timing) remain uncertain. The fact that NBET's bulk purchase and resale license expires in 2021 heightens this uncertainty.

The tariff reflected in the PPA, and counterparty credit risk, remain primary issues for investors. Other key factors include the proposed duration of the PPA (does the duration match the tenor of the investor's financing; the duration of the fuel supply, etc.); commercial reasonableness of terms (*i.e.,* pricing, pass through costs); risk of non-dispatch; and foreign currency risks.

Gas Supply Counterparty and Duration

Although Nigeria is ranked the ninth country in the world and the highest in Africa in terms of proven natural gas reserves[33], due to lack of infrastructure and long-term gas flaring activities[34], gas supply continues to remain a real concern for investors. Investors should review the form gas supply agreements the Gas Aggregator is developing, and focus on key factors such as the proposed duration of the agreement (does the agreement match the tenor of the investor's proposed financing; the duration of the PPA, etc.); commercial reasonableness of terms (*i.e.*, pricing, pass through costs); and risk of non-supply, both in reasonably foreseeable circumstances and in the event of force majeure.

Nigerian Domestic Bank Participation

Other than in financing the acquisition of the privatized PHCN assets, and providing the capital expenditure financing the new owners of such assets require, Nigerian domestic banks traditionally have been reluctant to participate in long-tenor debt financed projects in Nigeria (debt financing for longer than a five to seven-year tenor in many energy financings is rare). Although some Nigerian banks are beginning to show some interest in financing international power projects in Nigeria, one challenge for power projects remains attracting longer-term Naira debt, which is a good match with the Naira-based revenues that Nigerian power assets will generate.

Conclusion

Although a power generation target of 40,000 MW by 2020 is ambitious, realizing this target will depend heavily on political will, adequate funding of the sector, and the further implementation of the Roadmap for the Power Sector Reform. Significant progress must be achieved in the development of the currently offline

IPPs, as well as the finalization of the NIPP privatization program. The FGN will also need to continue providing support (financially and otherwise) to power projects to ensure investors remain comfortable with the creditworthiness of key government agencies that are intrinsic to the system's proper functioning. Ending on a positive note, progress continues in the Nigerian power sector, and Nigeria is becoming internationally recognized as a country with vast solar energy potential, which needs to be "harnessed"[35] in order to increase the chances of Nigeria meeting its publicly acclaimed 2020 vision.

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Endnotes

1 https://webcache.googleusercontent.com/search?q=cache:MQRJoNGFnHYJ:https://www.lw.com/thoughtLeadership/nigeria-ramps-up-power-sector-reforms+&cd=1&hl=en&ct=clnk&gl=uk

2 "Installed capacity" is the production capacity of a power plant based on its rated (technically achievable or "nameplate") capacity. "Available capacity" is the amount of electricity actually produced (practically determined) by a power station and made available for distribution. For example, a plant may have an installed capacity of 1000 MW, but due to fault equipment or shortage of labor, the plant may be able to produce an available capacity of only 200 MW.

3 Nigeria Power Baseline Report @ pg 7.

4 This represents the available capacity as at Thursday, 28 January 2016. Official Website of the Ministry of Power.

[5] *Global Energy Industry Review* Winter, 2014 – Article titled "Power Sector Privatisation in Nigeria: Opportunities and Challenges," by Misi Oni.

[6] Government of South Africa

[7] Official Website of the Ministry of Power

[8] *McKinsey* – Report titled "Electric Power & Natural Gas; Brighter Africa: The growth potential of the Sub-Saharan electricity sector," February 2015.

[9] *African Law & Business* – Article titled "A scramble for power – the Nigerian energy crisis" by Natasha Mellersh, 13 July 2015.

[10] Panel discussion at the Nigeria Power Sector Investment Forum in London, 27 January 2011.

[11] *Global Energy Industry Review* Winter, 2014 – Article titled "Power Sector Privatisation in Nigeria: Opportunities and Challenges," by Misi Oni.

[12] Index Mundi Country Comparison, as at 1 January 2014

[13] Advisory Power Team, Office of the Vice President, Federal Government of Nigeria in conjunction with Power Africa, "Nigeria Power Baseline Report," August 2015.

[14] Chairman of the Nigeria National Committee of the World Energy Council – Article titled "The Way Forward for Electricity Supply in Nigeria," 20 October 2015.

[15] McKinsey – Report titled "Electric Power & Natural Gas; Brighter Africa: The growth potential of the Sub-Saharan electricity sector", February 2015.

[16] Information officials of NBET provided in the course of enquires for the purpose of this article and other matters.

[17] This list was put together based on Templars' knowledge of the power sector and the website of individual regulators. See also KPMG "Guide to the Nigerian Power Sector" 2013.

[18] Panel discussion at the Nigeria Power Sector Investment Forum in London, 27 January 2011.

[19] KPMG – Report titled "A guide to the Nigerian Power Sector," December 2013.

[20] Presidential Task Force on Power

[21] NIAF Publication titled *Power Sector Reform: TEM Implementation*. Available at http://niafng.org/wp-content/uploads/2015/02/Establishing-the-Transitional-Electricity-Market-in-Nigeria.pdf

[22] Central Bank of Nigeria - "N300 Billion Power and Airline Intervention Fund (PAIF) Guidelines"

[23] Ibid.

[24] Power Africa memorandum of understanding between the US government and Nigeria @ page 10.

[25] USAID - Article titled "What Power Africa means for Nigeria"

[26] *Venturer Africa* – Article titled "It will take more than another grant to increase Nigeria's power generation above 4500 Megawatts," by Felicia Omari Ochelle, 16 October 2015.

[27] Nigerian Electricity Regulatory Commission

[28] Industrial Development (Income Tax Relief) Act (Chapter I7, Laws of the Federation of Nigeria (LFN) 2004)

[29] Ibid.

[30] Deloitte Inside Tax – Report entitled "Is Gas Utilization Incentive still necessary?", dated 2015

[31] Ibid.

[32] *ESA Africa* (Africa's Power Journal) – Article titled "NERC approves feed-in tariffs for renewable energy sources," 3 November 2015.

[33] "11 Countries with highest natural gas reserves"

[34] The Guardian – Nigeria: "Nigeria's untapped gas reserves and declining crude oil fortunes," 29 July 2015

[35] Permanent Secretary in the Ministry of Power - discussions with Corporate Council on Africa, October 2015