TRANSITIONAL ELECTRICITY MARKET (TEM)

and investor and stakeholder expectations for the Nigerian Electricity Supply Industry (NESI)

Detail

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A. WHAT IS TEM?

One of the objectives of the electricity sector reform, which commenced in 2001 with the National Electric Power Policy, is to create efficient market structures, within clear regulatory frameworks, that encourage competitive markets for electricity generation and trading. In line with this objective, the Electricity Power Sector Reform Act 2005 (EPSRA) provides for a phased and strategic implementation of the power sector reforms until optimal capacity generation and a full competitive market is achieved. Implementation of the competitive electricity market will be through a gradual process of increasing competition designed as four market stages, namely: Pre-Transition, Transition, Medium Term and Long Term.

The Pre-Transition Stage kick started the end of the monopoly in the power sector and the commencement of the unbundling and privatization of the Power Holding Corporation of Nigeria (PHCN). The Transitional Electricity Market (TEM) was initially due to commence immediately upon the handover of the PHCN assets on the 1st of November 2013 (Handover Date), but some of the conditions precedent to the declaration of TEM were yet to be fulfilled at the time.

These conditions included but were not limited to[1]:

i. Development, implementation and testing by the System Operator (SO) and the Market Operator (MO), of the systems and procedures required to implement the Grid Code and the Market Rules;
ii. Formalization of the trading arrangements - Vesting Contracts (VCs) and the Power Purchase Agreements (PPAs) between the companies that will participate in the Transitional Stage Market;
iii. Publication of the Initial Transmission Usage Charge by NERC;
iv. Constitution of the initial Dispute Resolution Panel (DRP)[2]; and
v. Constitution of the Initial Stakeholder Advisory Panel (SAP)[3].

1 See Appendix 2 of the draft Market Rules for all conditions precedent to declaration of TEM

2 The DRP is the panel responsible for arbitrating or otherwise resolving disputes between (1) the SO or MO or Transmission Licensee and any Participant (2) the MO and any person who has been denied certification as a Participant; and (3)Participants to the extent that such disputes are in accordance with the Market Rules of the Grid Code.

3 The SAP is a panel constituted by NERC, responsible for reviewing the Market Rules, Grid Code and proposing and/or approving amendments on an on-going basis and advising NERC on specific technical issues relating to the operation of the MO Administered Market.

In addition to the conditions precedent, the deferment of the commencement of TEM was attributed to other elements such as the lack of a cost reflective tariff, liquidity challenges downstream with the Distribution Companies (Discos) and gas supply challenges upstream in the sector to the Generation Companies (Gencos).

However, on the advice of the Nigerian Electricity Regulatory Commission (NERC), TEM has now been declared by the Minister of Power on the 1st of February, 2015. TEM once effective would imply that the electricity market (especially its trading arrangements) will now be wholly contract governed. It is now expected that there would be a fully cost reflective tariff in place that would ensure investors' full cost recovery and confidence for financing and investment in the sector based on certainty of revenues. Letters of Credit required under the PPAs, Vesting Contracts and Gas Supply Agreements to backstop payment obligations under these agreements, are meant to serve as a form of guarantee of revenues for power supplied by the Generation Companies to the Nigerian Bulk Electricity Trading Plc (NBET)[4] and NBET to the Discos respectively.

B. THE END OF THE INTERIM RULES?

The Interim Rules were a set of rules developed by NERC to govern trading and commercial arrangements during the interim period before the declaration of TEM. The Interim Rules came into effect on the Handover Date of the PHCN Disco and Gencos which occurred on 1st November 2013. The first version of the rules was published on 3rd of December, 2013 and an amended version published on the 22nd of April, 2014. The objectives of the Interim Rules include:

i. Establishing a framework to govern trading arrangements during the Interim Period when PPAs between the PHCN Successor Gencos and NBET and Vesting Contracts between NBET and PHCN Discos will not be effective;
ii. Managing the probable revenue shortfall in the industry by determining the revenue allowable to market participants and service providers during the Interim period;
iii. Establishing the payment arrangements and flow of funds from Discos through the MO to all beneficiaries;
iv. Establishing the sources of funds required to ameliorate the probable shortfall in revenues collected by the Discos during the Interim Period.

The Interim Rules was initially to be effective up until the 28th February 2014, but due to delays in fulfilling certain conditions for the declaration of TEM, the Interim Rules continued in existence until the 31st of January 2015 when effectively by an order of NERC, TEM was declared.

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During the Interim Period, the Discos, Gencos and other electricity generators continued the existing Pre-Transition Electricity Market trading arrangements whereby Discos received invoices from and made payments to the MO for power received from the Gencos and other sources. The Discos were given the option of making minimum payments on invoices from the MO ("Baseline Remittance") for the Interim Period. The Discos were also required to make payments to the MO for the regulatory charges as well as service providers' charges (MO, SO, TSP and NBET).

The major challenge with this framework was that the market participants operated more on a best endeavors basis without any regard for the existing contracts. The Market Participants were also not being sanctioned for being unable to meet their contractual obligations. This will not be the case once TEM becomes has been declared as the Industry Agreements will be effective and parties to these agreements will be held accountable to their obligations.

C. CONSTRAINING FACTORS TO OPERATIONALIZING TEM

I. FULL OPERATION OF TEM

Following the declaration of TEM on 1st February, 2015, NERC, via its Order No. 13 dated 30th January, 2015, there were clear indications that TEM would not be operational by the 1st of February given the varied status of the market participants.

4 NBET otherwise known as the Bulk Trader is wholly owned Federal Government company with a trading license. NBET will be responsible in the transitional stage for purchasing bulk power from Gencos and IPPs, and reselling the power to the Discos and eligible customers according to demand based on a vesting contract it enters into with the Discos and eligible customers.

To illustrate the challenges being faced by the market Participants, the Discos are required under the applicable vesting contracts to provide Letters of Credit (L/Cs) as financial security to NBET for the trading of electricity in TEM. However, even after the declaration of TEM, not all of the Discos have provided their L/Cs. As at 20th of March, 2015, only 8 out of the 11 Discos had posted L/Cs to NBET (Source: http://www.thisdaylive.com/articles/afdb-provides-200m-guarantee-for-nigeria-s-coal-to-power-projects/204604/).

NERC therefore deemed it necessary to issue a Supplementary Order (Supplementary Order') to provide for the effective administration and operation of TEM in accordance with the relevant Rules, Codes and Orders in the NESI catering for the market participants at their varied levels of readiness for TEM.

Highlights of the Supplementary Order include:

i. The power plants under the National Integrated Power Project (NIPP)[5] whose privatization transactions are yet to be completed will enter into short-term PPAs with NBET for an initial 6 months which may be renewed subject to NERC's approval.
ii. The NIPP Plants are required to meet their existing supply obligations to international customers up to a maximum of 300MW. The balance of energy from NIPP Plants shall be sold to the market through the respective Vesting Contracts. However, this arrangement shall terminate on or before 31st December, 2015, after which all energy shall be sold to offtakers through the Vesting Contracts. NBET will be responsible for any financial shortfalls that may arise from trading arrangements with international customers.
iii. Gencos without effective PPAs shall be paid for their Delivered Energy and Delivered Capacity by NBET.
iv. Discos that have not provided effective payment guarantees to NBET and the MO shall have their revenues escrowed for remittance according to a payment waterfall to be approved by NERC.
v. Discos without payment security to activate their contracts 3 months after the commencement of TEM shall attract sanctions except Kaduna Electricity Distribution Company that has been granted an extension for 6 months from the commencement of TEM.

The 'Baseline Remittance' principle introduced in the Interim Rules shall no longer apply. Full payment of quantities settled by the MO based on invoices issued to Discos by NBET and service providers are now required by all participants; and failure to comply will attract interest at NIBOR plus 10%.

5 The NIPP is a government initiative to add significant generation capacity to Nigeria's electricity supply system along with the electricity transmission, distribution and natural gas supply infrastructure required to deliver the additional capacity to consumers throughout the country. Ten power plant built under this initiative are currently being privatized.

II. RECOVERY OF AT&C LOSSES

Aggregate Technical and Commercial and Collection Losses (ATC&C Losses) is the sum total of technical, commercial and collection losses due to the non-realization of total billed amounts to electricity consumers.

As the recovery of ATC&C losses rests on the potential liquidity of a Disco or Genco, this problem will continue to limit the desired effectiveness of TEM if not properly addressed. In tackling the problem of technical, commercial and collection losses experienced by Discos, it is important that certain measures are taken, such as: deployment of adequate and functional metering systems; replacement of faulty parts, equipment and transformers; strengthening of preventive maintenance for effectiveness; and zero tolerance for non-payment of bills and vandalism of power installations. All these will require a substantial amount of funding which could potentially be raised where there is a clear path of revenue recovery.

Although NERC has issued the MYTO 2.1 Tariff Order to provide a feasible ATC&C loss reduction trajectory, the recent discount of collection losses from the ATC&C loss reduction targets further casts shadows on the clear path for revenue recovery of the Discos.

III. SIX MONTH FREEZE ON RESIDENTIAL TARIFFS

The MYTO 2.1 also introduces a six-month freeze on tariff increase for residential consumers who constitute about 80% of electricity consumers in the country. To tackle the issue of under-recovery, it is important that the projected shortfall created by the six-month freeze be provided for through a proper cost recovery plan. NERC is to ensure that it creates a balance between the cost of investment, the quality of service and the tariffs that electricity consumers are willing and able to pay.

IV. SHORTAGE OF GAS SUPPLY

Although Nigeria has the 9th largest Natural Gas reserves in the world and the largest in Africa, the limited supply of gas to power plants has continually hindered the generation of electricity in Nigeria, as most power generation companies are thermal and dependent on natural gas. One of the proposed benefits of TEM is the incentive created by the Gas Supply Agreement to ensure that the Gas Suppliers[6] deliver on their gas supply commitments to the power producers. However, a major challenge in accessing gas still remains regardless of TEM creating an enabling environment and fiscal framework that encourages further investment in the development of more gas reserves; as well as processing and transportation facilities. Power generation is also constantly affected by

6 The current Gas Suppliers include Nigerian Gas Company, Shell Petroleum Development Company Nigeria, Chevron Nigeria Limited, ExxonMobil Producing Nigeria Limited, Total Exploration & Production Nigeria Limited, Nigerian Agip Oil Company, PanOcean Oil Corporation, Seplat Petroleum Development Company, and Nigerian Petroleum Development Company.

sabotage and vandalism of transportation pipelines used for the transmission of gas and it appears that the declaration of TEM cannot directly resolve this situation. On 10th March, 2015, Vanguard Newspaper quoted the Nigerian Gas Company, who had reported that Nigeria lost a minimum of N8.04 billion between January and 10th March 2015, to the incessant vandalism of the country's gas pipelines. Also the Minister of Power disclosed on the 6th March 2015 that Nigeria's 3,642MW of electricity dropped to about 3,000MW due to vandalism of the Escravos-Lagos Pipeline System (ELPS) Gas Pipeline in Delta State.[7]

V. FUNDING CHALLENGE

The Discos and Gencos will now need to commit to their contractual commitments which include rehabilitation of plants, distribution networks, and ATC&C loss reduction; so therefore, long term funding will be required. The issues around achieving a cost reflective tariff for the Discos need to be given major priority to ensure that the Discos are able to access funding that would make the rest of the value chain bankable.

VI. DEARTH OF NECESSARY MANPOWER

There is the concern that power generation and distribution will not attain its desired capacity due to a lack of adequately trained human resources. Considerable financial and human resources will have to be utilized in order to recruit and train individuals that would become experts in the field. Although long term solutions have been put in place by the government through the establishment of the National Power Training Institute of Nigeria (NAPTIN), more efficient short term solutions will need to be implemented by both the Government and stakeholders in the Nigeria Electricity Supply Industry in order to reverse this dearth in skilled manpower.

D. EXPECTATIONS OF STAKEHOLDERS FOR TEM

The following are some of the expectations of stakeholders. Stakeholders for the purpose of this article include the Federal Government, Regulators, Investors, Market Participants, Service Providers, Investors and Financiers and Electricity Consumers.

ENFORCEABLE CONTRACTS

A fundamental expectation of TEM for all stakeholders is that this phase will ensure strict accountability of the Market Participants. Under TEM, the Industry Agreements[8] will become effective and Market Participants are obliged to commence full trading based on these agreements and will be sanctioned for failing to meet their contractual obligations to other participants. For instance, Gas Suppliers[9] will be penalized / sanctioned in the event of a failure to deliver on their gas supply commitments to the power producers, in line with the Gas Supply Agreements they have signed. Failure of the Gencos to meet their supply commitment obligations will also be met with consequences as provided for in their PPAs with NBET including non-payment for energy not supplied NBET. NBET would not be paid for power not supplied to the Discos, who will ultimately lose revenue for failing to supply improved electricity to the end users.

FULL COST RECOVERY

It is also expected by the Investors that there would be a fully cost reflective tariff in place that would ensure investor full cost recovery and confidence for financing and investment in the sector. A lot of the determinants to ensuring a cost reflective tariff have been dealt with above.

CERTAINTY OF REVENUES

Related to enforceable contracts is the certainty of revenues. The Letters of Credit required under the PPA, Vesting Contracts and Gas Supply Agreements to backstop payment obligations under these agreements, are meant to serve as a form of guarantee of revenues for power supplied by the Gencos to NBET and NBET to the Discos respectively.

The above expectations are desirable, however, in light of the current realities – particularly the need for a cost reflective tariff and gas supply challenges – there is a need for a firm achievable strategy or plan to address these challenges highlighted. Without cost reflective tariffs and sufficient supply of gas, the value chain will be stunted, and power delivery to the electricity consumers will be negatively impacted.

E. CONCLUSION

Following the privatization of the PHCN Gencos and Discos in November 2013, the entry of the NESI into TEM has become imperative to unlock the much needed funding and growth in the industry. In spite of the myriad of issues plaguing the industry, steps are being made in the right direction by the Federal Government, relevant Ministries and Agencies in ensuring the stability of this very crucial industry that is key to Nigeria's economic growth. A lot of work, as highlighted above, however still needs to be done by the NERC, Market Participants and Service Providers to boost investor confidence in the NESI. ■

7 http://www.sweetcrudereports.com/2015/03/06/%E2%80%8Epower-generation-drops-again-due-to-pipeline-vandalism/).

8 Vesting Contracts, Transmission Use of Service Agreements, Grid Connection Agreements, Ancillary Services Agreement, Power Purchase Agreements, Gas Supply Aggregation Agreements and Gas Transportation Agreement

9 The current Gas Suppliers include Nigerian Gas Company, Shell Petroleum Development Company Nigeria, Chevron Nigeria Limited, ExxonMobil Producing Nigeria Limited, Total Exploration & Production Nigeria Limited, Nigerian Agip Oil Company, PanOcean Oil Corporation, Seplat Petroleum Development Company, and Nigerian Petroleum Development Company.