

## POWER SECTOR UPDATES AS AT Q3 2019

- A) OVERVIEW OF THE NIGERIAN ELECTRICITY REGULATORY COMMISSION'S 2016 - 2018 MINOR REVIEW OF THE MULTI YEAR TARIFF ORDER (MYTO) 2015 AND MINIMUM REMITTANCE ORDER FOR THE YEAR 2019
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### INTRODUCTION

The Nigerian Electricity Regulatory Commission (NERC) recently released its 2016 – 2018 Minor Review of the Multi Year Tariff Order (MYTO) 2015 and Minimum Remittance Order for the year 2019 (the Order) in order to adjust electricity tariffs in line with the macroeconomic variables for 2016 – 2018 and set minimum market remittance requirements for Electricity Distribution Companies (DisCos).

The Minor review was undertaken pursuant to Section 17 of the MYTO - 2015 Order which provides for a biannual minor review of tariffs taking into consideration changes in variables outside the control of the DisCos in line with the requirements of the MYTO

Methodology, i.e. Inflation rates, Foreign Exchange rates, Gas prices and Available generation capacity.

The Order has been issued to reflect the impact of changes in the minor review variables in the determination of cost reflective tariffs and relevant tariff and market shortfalls for the years 2016 to 2020.

### OBJECTIVES OF THE ORDER

The major objective of the Order is to ensure that tariffs remain competitive and cost-reflective. It seeks to achieve this by ascertaining the revenue shortfall occasioned by the differential between cost reflective tariffs for the relevant years and allowed tariffs in the industry. NERC states that the Order seeks to gradually



propel the electricity market to Transitional Electricity Market (TEM) whilst implementing a framework to manage future revenue shortfalls in the industry. Furthermore, the Order provides for a minimum market remittance requirement to account for the differences between cost reflective tariffs and allowed tariffs in the settlement of invoices issued by the Nigerian Bulk Electricity Trading Plc. (NBET) and the Market Operator (MO).

#### **MINOR REVIEW OF MYTO - 2015 TARIFF ORDER USING EKO ELECTRICITY DISTRIBUTION PLC. (EKEDC) AS A CASE STUDY**

The Order takes into consideration the actual changes in relevant macroeconomic variables and available generation capacity in reviewing the operating MYTO - 2015 Tariff Order for the period January 1, 2016 to December 31, 2018 in line with the provisions of the MYTO Methodology. These variables are Nigerian and United States inflation rates, Naira/USD foreign exchange rates, gas prices and available generation capacity. NERC made projections for macroeconomic variables for the year 2019 and beyond based on best available information obtained from the Central Bank of Nigeria ("CBN"), National Bureau of Statistics ("NBS"), System Operations ("SO") Division of the Transmission Company of Nigeria Pic ("TCN") and NBET for the update of the MYTO - 2015 financial model. NERC would also make necessary adjustments to reflect actual values at the time of the next minor review that will take effect on 1st January 2020.

With respect to the exchange rates used for the Minor Review, NERC utilized the average NGN/USD exchange rates of N255.90, N308.80, N309.14 and N309.97 used for the years 2016, 2017, 2018 and 2019 respectively. However, from the DisCos' perspective, it may be recommended that the interbank rates should have been utilized for the Minor Review as the rates are higher and more favourable. Also, although the Order did not address the foreign exchange disparities, it is advocated that a phased introduction of the parallel market rates into the market should be implemented where the DisCos' Performance Agreements are extended.

In addition to macroeconomic variables, NERC also considered the projected loss reduction targets contained in the Performance Agreements with the Bureau of Public Enterprises (BPE). By virtue of the Performance Agreements, the DisCos committed to an Aggregate Technical, Commercial and Collection ("ATC & C") loss reduction trajectory over a period of 5 years, which NERC applied in MYTO 2015. However, arising from the uncertainties that shrouded full revenue recovery in the years 2017 - 2018, NERC, after due consultation with BPE, agreed on the following:

- a) The ATC&C loss reduction trajectory, based on the Baseline Loss Studies as provided in the Performance Agreement of Eko Electricity Distribution Company Plc ("EKEDC") was applied in the tariff computation with effect from 1st January 2015;

- b) The Performance Agreement was considered as fully effective in the years 2015 and 2016 and the applicable loss reduction targets were applied in line with provisions of MYTO - 2015 Tariff Order of EKEDC;
- c) The years 2017 and 2018 were recognised as years of mutual non-performance to account for the non-implementation of the previous Minor Reviews, Forex challenges, and uncertainties on cost reflective tariffs and revenue recovery. Hence, ATC&C loss improvement targets will not apply in computing tariffs and relevant revenue deficit/surplus in the respective years. In this regard, the provisions for CAPEX for the years of non-performance have been netted-off the revenue requirement of DisCos.

However, the recognition of 2017 and 2018 as years of mutual non-performance, and as such the non-applicability of the ATC&C loss improvement targets in computing tariff and relevant revenue deficit/surplus in the respective years disproportionately ignored the Force Majeure (FM) years particularly 2015 and 2016. If the FM years are not considered, it would impact the investments made by DisCos to reduce its ATC&C during those years. Thus, the ATC&C loss improvement targets should also not apply in computing tariffs and relevant revenue deficit/surplus in 2015 and 2016.

#### **TREATMENT OF 2015, 2016, 2017 AND 2018 SHORTFALLS**

For example, the Commission computed and recognised the sum of N95.6billion as the tariff shortfall for EKEDC for the years 2015 - 2018. The Order provides that all accrued liabilities in EKEDC's financial records arising from tariff shortfalls shall be transferred off the balance sheet and fully settled under the financing plan of the Power Sector Recovery Plan ("PSRP") initiative approved by the Federal Government,

The Order further provides that all funds retained by the DisCos as represented by excess of market (remittance) shortfalls over tariff shortfall are to be recovered as a full liability of the DisCos, including applicable interest thereon, in line with the provisions of the Supplementary TEM Order, the Market Rules and respective industry contracts with NBET and the MO. All DisCos with excess of tariff shortfall over market shortfall shall be compensated accordingly for the difference. All interest payable by DisCos on unpaid invoices issued by NBET and the MO and attributable to tariff shortfall shall be transferred off the balance sheet of the utilities.

In other words, where market (remittance) shortfalls are in excess of tariff shortfalls, such liability will rest on the Discos including applicable interest. However, where tariff shortfalls exceed market shortfalls, the Discos will be compensated for the difference.

The Order recognises that interest on unpaid invoices issued by the MO and NBET and attributable to tariff shortfall will be transferred off the balance sheet of the utilities; however, the Order fails to recognise the interest on unpaid invoices occasioned by market shortfall and in essence, interest on unpaid invoices in general as the DisCos are unable to charge similar interest to customers on unpaid electricity bills.

#### **MDA DEBTS**

The Order emphasizes the responsibility and initiative of the DisCos regarding revenue collections from all customers including Ministries, Departments and Agencies ("MDAs") of States and Federal Government rests. Accordingly, the Order makes it mandatory for all DisCos to meter all MDAs with appropriate meters within 60 days from the effective date of the Order and it further states that all DisCos have the right to disconnect any MDA defaulting in the payment for electricity in line with the Regulation on Connection and Disconnection Procedures for Electricity Services. This may not be possible, considering the ongoing resistance from the MDAs particularly the military agencies.

DisCos have however argued that the privatization was premised on an assurance that MDAs would meet their electricity consumption obligation and have insisted that MDA debts be included in losses. Previously, MDA debts were removed from the calculation of collection losses of the DisCos and coupled with this is the continued non-payment by the MDAs. However, it is advocated that for the proper computation of DisCos' reduction of collection losses, MDA debts should be re-included as was initially envisaged by the sector participants. It is also worthy of note that the partial reconciliation of MDA debts between DisCos and the Federal Government of Nigeria, with the reconciled amount to be paid directly to NBET, and any credit to the respective DisCos, remains outstanding.

#### **MINIMUM REMITTANCE BY DISCOS USING EKEDC AS A CASE STUDY**

NERC proposes in the Order that an intermediate review of end-user tariffs on January 1, 2020 and transition to full cost reflectivity shall be achieved by July 2020. The rationale for the retroactive nature of the Order is unclear given that the reset of the market has

been long overdue, and the swift implementation of the Order would produce quick gains for the DisCos.

However, in the interim, the Federal Government, under the PSRP, has committed to fund the revenue gap arising from the difference between cost reflective tariffs determined by the Commission and the actual end-user tariffs. Further details have not been provided regarding the modalities of the PSRP funding. The Order provides for a “waterfall of market revenues” during the transitional period which shall be in line with the following:

- a. All DisCos are obligated to settle their market invoices in full as adjusted and netted off by applicable tariff shortfall approved by the Commission.
- b. All FGN intervention from the financing plan of the PSRP for funding tariff shortfall shall be applied through NBET and the MO to ensure 100% settlement of market invoices as issued by Market Participants.
- c. Under this framework, the minimum market remittance threshold for EKEDC is determined after deducting the revenue deficit arising from tariff shortfall from the aggregate NBET and MO market invoices. EKEDC shall be availed the opportunity to earn its revenue requirement only upon fully meeting the following payment obligations:
  - i. Repayment of CBN-NEMS facility.
  - ii. 100% settlement of MO's invoice based on the tariffs applied by the MO in determining respective invoices prior to this Order. Effectively, this Order places a freeze on the tariffs of TCN and other admin charges covering NBET and the Commission throughout 2019 at the rates applied in generating MO invoices for the period of January - May 2019.
  - iii. Full settlement of 45.4% of NBET's monthly invoices being the minimum remittance threshold prescribed in this Order.

The Order provides that EKEDC shall liable to relevant penalties/sanctions for failure to meet the minimum

remittance requirement in any payment cycle in line with the provisions of its respective contracts with NBET, MO and the provisions of the Market Rules and Supplementary TEM Order. Furthermore, EKEDC shall maintain an adequate and unencumbered letter of credit covering three (3) months based on the minimum payment obligations to NBET and the MO.

Only after all these payment obligations have been satisfied, would the Disco be entitled to utilise the balance for its CAPEX and OPEX operations.

## CONCLUSION

This 2016 – 2018 minor review of MYTO 2015 is a welcome development for stakeholder investors in Nigeria's power sector as it represents a clear plan to gradually move electricity tariffs to a level where investors can recover their costs and make decent returns on their investment subject to stipulated conditions. The review also provides for an interim strategy where the resulting shortfalls from non-payment of cost reflective tariffs are dealt with by Federal Government via the PSRP. The effect of this is that the Discos can engage in projects that can ultimately increase supply of electricity to customers.

NERC should also fast track the passing of the franchising regulation following the implementation of cost-reflective tariffs as this remains outstanding. DisCos would be able to procure additional generation to augment their energy requirements via Embedded generation. Consideration should be given to ensuring that the tariff incorporates the cost of such additional energy. Pricing of such energy in the tariff could be based on a pro-rata recovery across all customer classes or for a selection of customers.

Going forward, NERC should endeavour to conduct and implement minor reviews as at when due. Given the constantly changing economic variables that apply to the Nigeria Electricity Industry, it is important that the tariffs and other relevant data be continuously updated to reflect current market realities in order to attract sufficient investment into the industry.



# AN OVERVIEW OF THE NIGERIAN ELECTRIFICATION ROADMAP: LINGERING ISSUES AND UNENDING PROGRAMS

## INTRODUCTION

Prior to the power sector privatization program in 2013, the Federal Government of Nigeria (FGN) launched the Power Sector Roadmap 2010 and set as a target, the attainment of 40GW of reliable power supply by 2020. Almost a decade afterwards, the country still grapples with epileptic power supply despite the sector being privatized.

The installed generation capacity is about 13GW, available capacity is 7GW, while what is distributed by the Distribution Companies (Discos) to over 190 million Nigerians (Households, Commercial and Industrial Users) has not gone beyond 5.3GW which was the peak generation attained in February 2019.

By 2017, the Economic Recovery and Growth Plan (ERGP 2017-2020) of the FGN placed the power sector infrastructure expansion program as a priority agenda of its economic growth plan trajectory. This was followed by the Power Sector Recovery Program (PSRP 2018), specifically designed to address the policy and financial issues bedeviling the power sector of Nigeria. The PSRP adjusted the target of delivering 40GW to a more realistic 10GW (on-grid and off-grid) of operational capacity by 2020.

Realizing that existing power sector assets are inefficiently deployed and are unable to deliver the set targets, Siemens AG and FGN recently expressed intentions to collaborate in order to unlock the network bottlenecks in the Nigerian power sector. This effort has been articulated in the Nigerian Electrification Roadmap, 2019 (NER) which will be analyzed in light of some lingering issues in the Nigerian Power Sector.

## STRUCTURE OF THE ROADMAP

The Nigerian Electrification Roadmap (NER) is structured in three phases, set to span a period of six (6) years (2020-2025), during which the power sector system upgrade and capacity expansion would deliver 7GW of operational capacity in the first phase, 11GW in the second phase and 25GW in the third phase. Each of these phases requires several projects that have been identified to unlock the respective set targets.

### 1. Proposed Phase 1 Projects

From prior simulation studies undertaken by Siemens on the Nigeria Electricity Supply Industry (NESI), it was discovered that there exists stranded operating capacity of 2GW, which limits the available wheeling capacity from 7GW to 5GW. It is anticipated in this phase to unlock the 2GW of stranded supply due mainly to the in-feed capacity bottleneck of 132/33kv

interface between TCN and DisCos, via the upgrade of the transmission and distribution networks (T&D) to deliver the 7GW to end-users in the short-term, thereby accelerating quick wins for the sector.

Although there are no exact timelines for this phase, it is hoped that in the short-term between 2019 and the end of 2020, end-users should enjoy stable and reliable supply of 7GW. Interestingly, the main projects in this phase will require the deployment of some of Siemens' product offerings such as containerized GIS substations x 11, mobile substations x 10, additional transformers, compensation system x1, 140 km of transmission lines, Siemens' product offerings to 14 substations, and upgrade of 26 existing substations, deployment of SCADA with Siemens' Spectrum Power 7 in implementing grid automation, and the deployment of Siemens' Energy IP platforms in implementing national metering infrastructure project. It is expected that once these costs have been agreed to by the FGN, effectuated by a more effective Co-operative Agreement, Siemens will begin the manufacturing of the equipment needed to deliver on this phase.

### 2. Proposed Phase 2 Projects

Following the successful implementation of the phase 1 projects, additional projects for phase 2 will be undertaken to strengthen and expand existing capacity in order to unlock additional 4GW to attain the target of 11GW by 2023.

This phase will entail rolling out further T&D infrastructure upgrade to attain the 11GW capacity, which is the current distribution capacity of all the DisCos, aimed at making more power supply available to end-users.

Essentially, the main projects in this phase will be the SCADA deployment for the 11 DisCos, Embedded Power projects (Siemens based SGT 40MW suggested as pilot project in Abuja) and support of existing North East Transmission Infrastructure upgrade (NTEP2). In addition, Siemens proposes in this phase to support the current flare gas projects/program (Gas to Power) by setting up gas processing/treatment facilities to unlock the needed 15GW of power for the third (3) phase.

### 3. Proposed Phase 3 Projects

Based on network studies and load demand, this phase will focus on projects that will expand existing transmission and distribution assets for additional capacity required to attain the 25GW target by 2025.

Essentially, Siemens aims to support the AKK pipeline project as well as the four power plants expected to be

built by the FGN along the pipeline project with the aim of delivering a total of 4.5GW. The proposed power plants will be located in Abuja (1350MW), Kaduna (1350MW), Kano (1350MW) and Lagos (450MW), while the balance of 9.5GW is anticipated to be closed by other Independent Power Projects located in different parts of the country based on power demand.

In addition to the foregoing, Siemens proposes to provide operations and maintenance (O&M) services to TCN and DisCos for up to a period of 60 months after the commissioning of the T&D projects.

## CHALLENGES TO THE IMPLEMENTATION OF NER

### ● Non-Cost Reflective Tariffs

The PSRP projects that not less than \$1.5Billion annually will be needed over the next five years to fill the power sector infrastructure deficit in Nigeria, which effectively translates to about \$7.5Billion over the estimated period. However, delay in reviewing the MYTO 2015 and the non-cost reflective tariffs have constrained investment and growth of the sector, resulting to a tariff shortfall of N1.4 trillion as at March 2019, which is the sum technically owed to the DisCos. Consequent upon this deficit, each of the DisCos' capital expenditure has been significantly impaired which translates to lack of deployment of smart metering infrastructure in order to enhance revenue collection efficiency for the NESI and lack of investment in their respective networks to strengthen reliability of power delivery to end-users.

Prior to recent developments, the success of the NER was unclear given that the back-end challenges of tariff mismatch and revenue collection had not been addressed by the regulator. However, in August 2019, NERC released a minor review of the MYTO tariff order (2015) and minimum remittance order for 2019, which would trigger cost reflective tariffs when implemented in 2020 subject to certain pre-conditions. This would in effect positively impact the implementation of the

Roadmap which seeks to address the challenges of adequate metering infrastructure that was occasioned by the ensuing deficits and shortfalls hinged on non-cost reflective tariffs. It is expected that the seeming concerted efforts to introduce significant reforms in the NESI would result in the bankability of the NER.

### ● Generation Challenges

The Roadmap fails to holistically address the challenges plaguing the generation segment of the value chain. Although reference is made to the need to increase generation capacity, no direct strategy is provided as to the modalities of achieving the proposed increased capacity which is expected to factor the existing bottlenecks and the proposed solutions for the viability of the sector, given the interconnected nature of the NESI value chain.

### ● High ATC&C Losses

The Aggregate Technical Commercial and Collection (ATC&C) losses in the NESI have been significantly high, eroding almost half of the asset value of the power system. The implementation of the NER aims to reduce the losses encountered by the DisCos whilst expanding generation capacity. This is quite a logical approach, however the costing for the Siemens led projects have not been arrived at or finalized with the approval of the FGN. Although the German Export Credit Agency (GECA), has reportedly expressed willingness to bankroll the financing of the Siemens' project under the NER, it remains to be seen how this development will play out in terms of securitization of the assets. Perhaps the details will be spelt out as the journey of implementing the NER unfolds.

## CONCLUSION

The NER is commendable on the part of the FGN. However, the success of its implementation will depend on a holistic stakeholder approach in addressing the lingering issues across the NESI value chain.



# ORDER NO/NERC/181/2019: ORDER ON THE IMPLEMENTATION OF THE METER ASSET PROVIDER SCHEME IN THE NIGERIAN ELECTRICITY SUPPLY INDUSTRY- AN OVERVIEW

The Nigerian Electricity Regulatory Commission (NERC) has recently released the above-mentioned Order which sets out new requirements for compliance by the MAPs (Meter Asset Providers) and Distribution Companies (DisCos) in line with the Meter Asset Provider (MAP) Regulation 2018. In summary, the Order provides for the following:

## 1. Meter Price

The new NERC order provides N36,991.50 and N67,055.85 (VAT exclusive) as the exact costs for the purchase of single phase and three-phase meters, respectively. These prices will cover the costs of meter procurement, financing, installation, maintenance and all other meter-associated costs.

## 2. Repayment Plans

The NERC Order further provides that customers may elect to pay for meters either upfront or on an installment basis. The meters will be installed within 10 days of payment where they make full payment upfront with no further charge imposed.

However, a monthly meter service charge (MSC) will be imposed on their electricity bills where the customer

opts to pay on an installment basis. The MSC is distinct from the energy charge owed to the DisCos and will subsist for the duration of the repayment plan. The maximum period for any repayment plan is 120 months. Customers are also permitted to make advance full payments of their outstanding balance without incurring any penalty, regardless of the agreed-upon repayment plan.

## 3. Financing – Cap on Interest Rates of Meter Asset Providers (MAPs)

The NERC Order directs that MAPs obtain competitive rates for the cost of financing to be passed onto the customers. In this regard, the maximum financing costs the MAPs may pass annually to customers must not exceed 21%. This rate is to commence with effect from 1st August 2019 and may be reviewed by NERC every 3 years.

Although the Order in line with the MAP Regulation protects the customers from exploitation, smart regulation requires that there be no impediment on MAPs recouping their expenses and realizing fair profit in order to foster investment in the sector.