

ORDER NO.NERC/134

## BEFORE THE NIGERIAN ELECTRICITY REGULATORY COMMISSION

## ORDER ON THE FIRST 2014 MYTO-2 MINOR REVIEW

### **PREAMBLE**

The Nigerian Electricity Regulatory Commission (the Commission) has a responsibility under Section 32(d) of the Electric Power Sector Reform (EPSR) Act 2005 "to ensure that the prices charged by licensees are fair to consumers, and are sufficient to allow the licensees to finance their activities and to allow for reasonable earnings for efficient operation". The Commission is also obliged under Section 32(1) (f) of the EPSR Act 2005 to "ensure that regulation is fair and balanced for licensees, consumers, investors and other stakeholders"

### **BACKGROUND**

Section 76 of the EPSR Act 2005 requires the Commission to adopt one or more tariff methodologies in regulating electricity prices in generation, transmission, distribution, trading and system operation. Pursuant to this provision, the Commission established a Multi-Year Tariff Methodology; vide the Multi Year Tariff Order (MYTO), 2008. The Order provides a fifteen-year tariff path for the electricity industry with Minor and Major Reviews, bi-annually and every five years respectively.

The MYTO, 2008 was amended following a Major Review and in June 2012, the Commission approved and began the implementation of the Multi Year Tariff Order, 2012 (MYTO-2). MYTO-2 provides for three separate Tariff Orders, one for each of the sectors in the Nigerian Electricity Supply Industry (NESI), namely generation, transmission and distribution.

Section 6 of MYTO-2 authorizes the Commission to provide for:

"Minor reviews of the tariff to be conducted bi-annually to update the total cost of electricity".



Section 7 of each of the three Tariff Orders for Generation, Transmission and Distribution also mandates the Commission to carry out the bi-annual minor review of MYTO. The MYTO-2 states very clearly the variables that are to be considered during the minor review. These variables are:

- a. Rate of inflation;
- b. Foreign exchange rates;
- c. Cost of fuel (Gas price); and
- d. Actual available generation capacity

Data and information were sought and obtained on these variables from relevant organizations, namely, the Central Bank of Nigeria, National Bureau of Statistics and the System Operations Division of the Transmission Company of Nigeria (TCN).

### **REVIEW OF BASIC ASSUMPTIONS**

Table 1: The summary of the data obtained and its impact on the Industry revenue requirement and thus the average tariff is stated below:

Parameters	Assumptions for 2014 Tariff	Actual (31st March 2014)	Difference
Inflation	13%	7.8%	5.2% or 40% lower
Exchange Rate	=N=178	=N=158.57	=N=19.47 or 10.9% lower
Gas price/MMBTU	US \$2.30	US \$ 1.80	50 cents or 20% less
Generation Capacity	9,061 MW	4,306MW	4.755MW or 52.47% less
Revenue Requirement	N804 Billion	N510 Billion	=N=294 Billion or 36.56% less
Average Retail Tariff	=N=20.80	=N=24.50	=N=3.70 or +17.78% more

**Inflation** - The inflation rate received from National Bureau of Statistics shows a figure of 7.8%. MYTO-2 was benchmarked at 13% inflation rate.

**Nigerian Naira Exchange Rate** – The data received from the Central Bank of Nigeria shows an exchange rate of N157.30 to US \$1 as at 30<sup>th</sup> March 2013. MYTO -2 was benchmarked at N178 exchange rate. It is however important to note that MYTO-2 also allows a 1% charge above the CBN rate to cover normal banking costs.

Therefore: 1% of 157.30 = 1.573

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CBN exchange rate + 1% premium is therefore 157.30+ 1.573=158.57

MYTO-2 forecast exchange rate - 178

Current exchange rate -158.57

**Gas Price** - This is a pass through cost. The gas price was expected to increase from \$1.80 in 2013 to \$2.30 in 2014 in MYTO-2, in accordance with the understanding reached between NERC and the Ministry of Petroleum Resources in 2010. Thereunder, the NNPC committed to deliver certain quantities of gas to power plants, failing which, the "prior period price be maintained" until such a time as NNPC delivers the agreed quantity.

Ordinarily, the combined gas supply and transport tariff, as provided for in both the NNPC/NERC Memorandum and the Tariff Order would have increased to \$2.30/MMscf in June 2014. However given the inability of NNPC/NGC to deliver required gas quantities, gas suppliers are constrained to continue to charge Gencos at the current \$1.80/MMscf from 1<sup>st</sup> June in accordance with the principle established in the said Memorandum of retarding the price increase if inadequate quantities are delivered. Considering that gas is a pass through cost, the Commission is therefore retaining \$1.80/MMscf as gas price.

The net effects of these changes in macroeconomic indicators, actual daily generation capacity and the price of natural gas supplied to the NESI, and consequent actions taken by the Commission, are as follows:

- 1. For the generation sector, due to the positive macroeconomic results and no increase in the price of gas-to-power, a reduction in the wholesale electricity tariff; and
- 2. For the transmission and distribution sectors, we must contend with less-thananticipated gas quantities supplied to the generation sector and the resulting reduction in actual daily generation capacity made available to be wheeled via the transmission sector to the distribution sector;
- 3. The extent of reduced actual daily generation capacity outweighs the gains from sound macroeconomic management;
- 4. This means that the transmission and distribution sectors still retain the same fixed operating and maintenance cost base but have less energy from which to earn revenues to cover this cost base; and consequently
- 5. The transmission and distribution sectors will see a small increase in tariffs beyond what was envisaged by the MYTO-2 Tariff Orders; but
- 6. In order to minimise the impact of this increase on consumers, the Commission has decided to keep the fixed charge component of all Retail tariffs constant and transfer



all necessary increases to the energy charge component. In this way, the increase in tariffs is paid by consumers ONLY when energy is actually consumed.

Accordingly, and by virtue of the powers conferred upon the Commission by Section 76 of the Electric Power Sector Reform Act, 2005, and all other powers enabling it in that behalf,

## IT IS HEREBY ORDERED as follows:

### 1. WHOLESALE CONTRACT PRICE

The wholesale contract price in Table 2 below is paid to all gas-fired power plants other than AES, AGIP, Shell and Olorunshogo (PHCN) power plants whose tariff indexation is governed by pre-existing PPAs.

**Table 2: Wholesale Contract Price** 

Description	Approved Rate
Fuel cost (N/MWh)	3,336
Fixed O&M (N/MWh)	397
Variable O&M (N/MWh)	1,101
Capital cost (N/MWh)	3,257
Tax cost (N/MWh)	974
Transmission loss cost (8.05%) (N/MWh)	794
Energy charge (N/MWh)	5,555
Capacity charge (N/MWh)	4,303
Wholesale contract price (N/MWh)	9,858

Table 3 below states the tariff for Olorunsogo Power Plant:

**Table 3: Olorunsogo Power plant** 

Fuel cost (N/MWh)	3,351
Fixed O&M (N/MWh)	671
Variable O&M (N/MWh)	279
Capital cost (N/MWh)	3,287
Tax cost (N/MWh)	983
Transmission loss cost (N/MWh)	750
Energy charge (N/MWh)	4,708
Capacity charge (N/MWh)	4,614
Wholesale contract prices (N/MWh)	9,322

## **Table 4 Large Hydro Plants**

Table 4 should have stated the tariff for Shiroro and Kainji Hydroelectric power plants. However, the Commission discovered that the financial model used to make hydroelectric tariff calculations had become corrupted. Accordingly, this specific model is now being rewritten. This task will be concluded and appropriate hydro tariffs published before the commencement of market settlement in July 2014.

## Classification in Fixed and Energy Charges

It is also ordered that, for all Gencos, the wholesale contract price (converted to MWh) is to be paid to generators by Discos as follows:

Fixed or Capacity Charge – N/MWh of capacity made available daily by the generator and certified by the SO (using the formula for converting MW in MWh set in the Wholesale Generation worksheet of the MYTO financial model)

Energy Charge – N/MWh dispatched less 8.05% transmission loss



### 2. TRANSMISSION TARIFF

After this minor review, the total tariff due to TCN is N2380.39/MWh. This, however, is to be distributed amongst TSP, MO, Ancillary Services, NERC Regulatory Charge and SO in accordance with already-established MYTO-2 sharing ratios.

It should be noted that the TCN tariff is recovered from Discos and export customers in the ratio 20% per MWh wheeled per hour within the preceding month (fixed charge) and 80% per MWh delivered to distribution/export injection point. The breakdown is as stated below:

Table 5: Transmission Tariff (N/MWh)

Primary Liability	Basis	Rate	Remark
Distribution Licensee and Export Customers	Delivered to Distribution network or export injection point		To be distributed by MO as per Table 7 below
		1,904	
Distribution	Based on average MWh wheeled		To be distributed by
Licensee and Export	, ,		MO as per Table 7
Customers	month( see page 30 of MYTO-2		below
	Transmission Order)	476	

Table 6: Breakdown of charges for TCN (=N/MWh)

Beneficiary	Basis	Rate N/MWh
МО	Delivered to Distribution network or export corridor	80.22
SO	Delivered to Distribution network or export corridor	304.93
Auxiliary Services	Delivered to Distribution network or export corridor	32.61
NERC	Delivered to Distribution network or export corridor	59.51
TSP	Delivered to Distribution network or export corridor	1,903.12
Total		2,380.3



**Table 7: TCN Tariff Sharing Ratio** 

Name	Ratios (Percentage) %
MO	3.37
SO	12.81
Auxiliary Services	1.37
NERC	2.50
TSP	79.95
Total	100

**Table 8: Bulk Trader Charges** 

Liability	Basis		Rate/Mwh	Remark
Generation Licensee	Energy Sent out		Nil	
Transmission Licensee	Delivered Distribution	to	Nil	
Distribution Licensee	Delivered Distribution	to	37.16	Not based on collection

The bulk trader charge is embedded in the distribution tariff. The tariff to be paid to Bulk Trader is N37.19/MWh delivered to the Discos.

**Table 9: Regulatory Charge** 

Liability	Basis		Rate/MWh	Remark
Generation Licensee	Energy Sent out		1.5% of wholesale tariff	Not based on collection
Transmission Licensee	Delivered Distribution	to	32.61	Not based on collection
Distribution Licensee	Delivered Distribution	to	124.23	Not based on
				Collection

# 3. DISTRIBUTION TARIFF

The tariff classification remains as follows:

Table 10: Tariff classification:

	Customer Classification	Description	Remarks
1	Residential		
	R1	Life-Line (50 kWh)	A consumer who uses his premises
	R2	Single and 3-phase	exclusively as a residence - house, flat or
	R3	LV Maximum Demand	multi-storeyed house where people reside.
	R4	HV Maximum Demand (11/33 KV)	
2	Commercial		
	C1	Single and 3-phase	A consumer who uses his premises for
	C2	LV Maximum Demand	any purpose other than exclusively as a residence or as a factory for manufacturing goods.
	С3	HV Maximum Demand(11/33 KV)	manuracturing goods.
5	Industrial		
	D1	Single and 3-phase	A consumer who uses his premises for
	D2	LV Maximum Demand	manufacturing goods including welding and ironmongery.
	D3	HV maximum Demand (11/33 KV)	
4	Special		Customers such as agriculture (agro-
	A1	Single and 3 Phase	allied enterprises involving processing are excluded), water boards, religious
	A2	LV Maximum Demand	houses, Government and teaching hospitals, Government research
	А3	HV Maximum Demand (11/33 KV)	institutes and educational establishments.
5	Street Lighting		

# INDIVIDUAL DISCO TARIFFS (BY CUSTOMER CLASS)

Each Distribution licensee shall bill its customers for fixed charges and energy delivered to their premises based on the following revised rates:

Table 11: Abuja Electricity Distribution Company - Fixed and Energy Charges effective June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	702.11	14.70
R3	52,696.13	23.75
R4	136,029.72	23.75
C1	702.11	17.39
C2	47,771.54	22.08
C3	123,320.76	22.08
D1	1,000.00	17.81
D2	101,112.85	23.14
D3	123,320.76	23.14
A1	702.11	17.05
A2	43,125.00	17.05
A3	54,375.00	17.05
L1	600.00	14.08



Table 12: Benin Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	750.00	14.82
R3	37,527.00	21.29
R4	133,090.97	21.29
C1	1,000.00	16.63
C2	34,020.00	19.79
С3	141,748.00	19.79
D1	1,000.00	15.97
D2	153,412.60	20.75
D3	155,922.80	20.75
A1	1,000.00	15.29
A2	37,812.50	15.29
А3	44,687.50	15.29
L1	1,000.00	15.75

Table 13: Eko Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	750.00	15.63
R3	31,897.95	23.71
R4	136,655.14	23.71
C1	750.00	15.84
C2	22,169.70	22.04
C3	118,501.33	22.04
D1	904.50	17.78
D2	116,593.58	23.10
D3	118,501.33	23.10
A1	750.00	17.02
A2	52,250.00	17.02
A3	58,437.50	17.02
L1	750.00	13.07

Table 14: Enugu Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	650.00	16.44
R3	24,423.64	24.60
R4	117,416.46	24.60
C1	650.00	18.14
C2	22,141.18	22.87
С3	106,446.50	22.87
D1	1,300.00	18.45
D2	104,732.81	23.97
D3	106,446.50	23.97
A1	650.00	20.31
A2	37,500.00	20.31
А3	46,934.74	20.31
L1	650.00	15.58

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Table 15: Ibadan Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month  Approved Fixed Charge	N/Kwh Approved Energy Charge
Subclass		
R1	-	4.00
R2	650.00	16.44
R3	24,423.64	24.60
R4	117,416.46	24.60
C1	650.00	18.14
C2	22,141.18	22.87
C3	106,446.50	22.87
D1	1,300.00	18.45
D2	104,732.81	23.97
D3	106,446.50	23.97
A1	650.00	20.31
A2	37,500.00	20.31
A3	46,934.74	20.31
L1	650.00	15.58

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Table 16: Ikeja Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	750.00	13.21
R3	26,268.90	23.17
R4	164,173.80	23.17
C1	750.00	17.57
C2	23,814.00	21.54
С3	148,835.40	21.54
D1	1,000.00	17.38
D2	195,252.40	22.58
D3	198,447.20	22.58
A1	750.00	16.63
A2	43,125.00	16.63
A3	65,625.00	16.63
L1	650.00	12.77

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Table 17: Jos Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month  Approved Fixed Charge	N/Kwh	
Subclass		Approved Energy Charge	
R1	-	4.00	
R2	775.00	16.75	
R3	29,083.43	25.80	
R4	181,763.85	25.80	
C1	775.00	18.74	
C2	26,365.50	23.98	
С3	164,782.05	23.98	
D1	1,395.00	18.74	
D2	162,129.23	25.14	
D3	164,782.05	25.14	
A1	1,395.00	18.52	
A2	62,968.75	18.52	
A3	72,656.25	18.52	
L1	1,395.00	17.85	

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Table 18: Kaduna Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	781.13	17.00
R3	23,452.61	28.23
R4	146,572.69	28.23
C1	624.95	19.36
C2	21,260.90	26.24
С3	132,878.73	26.24
D1	624.95	21.17
D2	130,739.51	27.50
D3	132,878.73	27.50
A1	624.95	20.26
A2	41,989.02	20.26
A3	58,589.33	20.26
L1	624.95	17.17

Table 19: Kano Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month	N/Kwh
Subclass	Approved Fixed Charge	Approved Energy Charge
R1	-	4.00
R2	666.89	16.01
R3	30,031.48	25.80
R4	156,407.47	25.80
C1	666.89	17.46
C2	27,224.96	23.98
C3	141,794.66	23.98
D1	866.95	19.35
D2	139,511.91	25.14
D3	141,794.66	25.14
A1	666.89	18.52
A2	62,520.57	18.52
A3	83,360.76	18.52
L <u>1</u>	866.95	14.22

Table 20: Port Harcourt Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month  Approved Fixed Charge	N/Kwh	
Subclass		Approved Energy Charge	
R1	-	4.00	
R2	700.00	15.09	
R3	35,025.20	24.83	
R4	164,173.80	24.83	
C1	700.00	18.25	
C2	31,752.00	23.07	
C3	148,835.40	23.07	
D1	980.00	24.83	
D2	146,439.30	24.19	
D3	148,835.40	24.19	
A1	980.00	17.82	
A2	65,625.00	17.82	
A3	87,500.00	23.76	
L1	980.00	18.25	

Table 21: Yola Electricity Distribution Company: Fixed and Energy Charges June 2014

	N/month  Approved Fixed Charge	N/Kwh Approved Energy Charge
Subclass		
R1	-	4.00
R2	750.00	15.00
R3	24,204.92	22.71
R4	151,274.43	22.71
C1	750.00	17.88
C2	21,942.90	21.11
С3	137,141.19	21.11
D1	750.00	17.88
D2	134,933.36	22.13
D3	137,141.19	22.13
A1	750.00	17.50
A2	44,687.50	17.50
А3	60,468.75	17.50
L1	750.00	16.00

## 4. EFFECTIVE DATE

This order shall be effective from 1<sup>st</sup> June 2014.

Dated at Abuja this 30<sup>th</sup> day of May 2014

Dr. Sam Amadi

Chairman/CEO

Dr. Steven Andzenge

Commissioner

(Legal

**Licensing and Enforcement)**