



ORDER NO. NERC/142.8

BEFORE THE NIGERIAN ELECTRICITY REGULATORY COMMISSION

**MULTI YEAR TARIFF ORDER (MYTO) – 2015 FOR KADUNA ELECTRICITY DISTRIBUTION COMPANY (KAEDCO) FOR THE PERIOD
1ST JANUARY 2015 TO DECEMBER 2024**

BACKGROUND

1. Pursuant to a methodology established under Section 76, EPSR Act 2005, the Commission in 2012 completed a Major Tariff Review and thereafter enacted three separate tariff Orders, one for each of the sectors in the Nigerian Electricity Supply Industry (NESI), namely generation, transmission and distribution (the MYTO-2 Tariff Orders).
2. The Commission has since reconsidered the removal of collection losses as applied in MYTO 2.1 amended. This is on the basis that collection loss is an essential component of the tariff as clearly specified in the Disco privatisation bid documents.
3. The intent of this tariff review, therefore, is to ensure cost reflective tariffs as required by the EPSRA.
4. The MYTO-2015 financial model has been updated with the most recent data on generation capacity as well as macro-economic indices used for the 2015 minor review of the tariff. The rationale for this is to remain as close as possible to current

economic realities. The available/tested generation capacity and macro economic variables will continue to be reviewed semi-annually in line with the MYTO methodology and the Regulation on Procedure for Electricity Tariff Review in the NESI.

5. The MYTO financial model will henceforth be labeled the “MYTO-2015 Financial Model”, as the changes being effected are not primarily by way of a Major Review, which by definition is a specific event triggered and effected under the MYTO Methodology.

Major Changes to MYTO 2.1 (AMENDED)

6. ATC&C Losses and Projected Loss Reduction Benchmarks

MYTO-2015 reinstated the collection loss component of KAEDCO’s verified ATC&C loss value (less MDA debts) in end user tariffs .

- (1) In order to maintain the sanctity of the Performance Agreement signed between Bureau of Public Enterprises (BPE) and KAEDCO, the loss reduction trajectory now begins to apply at the end of 2015. In essence, KAEDCO will be expected to commence the reduction of its ATC&C losses by January 2016. To maintain fairness, the CAPEX provided for in the preceding years have been discounted from the five year tariff of KAEDCO.
- (2) Tables 1 and 2 below summarizes the verified baseline ATC&C losses (before and after removing MDA Debts) for KAEDCO, the initial figures as specified in the privatization RFPs and the yearly loss reduction commitment and the resulting ATC&C for each year.

Table 1: Estimated Baseline ATC&C Losses

Baseline ATC&C losses	Approved Percentages (%)
Bid Basis	35%
Verified ATC&C Baseline (with full collection loss)	60.81%
New Baseline ATC&C (less MDA debts)	47.66%

Table 2: Discos Relative (%) loss reduction commitment per year

Years	Annual loss reduction commitment	Baseline/Brought forward ATC&C	Resulting Year end loss reduction commitment
Year 1 - 2015	33.00%	47.66%	31.93%
Year 2 - 2016	37.00%	31.93%	20.12%
Year 3 - 2017	38.00%	20.12%	12.47%
Year 4 - 2018	38.00%	12.47%	7.73%
Year 5 - 2019	38.00%	7.73%	4.79%

7. Ten (10) Year Tariff Plan

MYTO-2015 is based on a 10-year tariff path. KAEDCO developed and forwarded its 10 year tariff plan to the Commission, which was adopted for this review. A minor review shall be carried out bi-annually to address changes in macro economic variables (inflation, exchange rate) as well as other variables (generation capacity and gas prices) not wholly within the Discos' control. A major review will be conducted every five years in line with the MYTO methodology. The 10 year tariff path considers revenue under-recovery in the first few years and over recovery in subsequent years. Ultimately, all allowable revenue will be recovered by the Disco within the Ten year period.

8. Fixed Charge

The fixed charge component of KAEDCO's tariff has been removed by rebalancing it to the energy charge to reflect the wishes of stakeholders in the industry.

9. 2015 Shortfalls

Given that this MYTO-2015 tariffs is based on a ten (10) year tariff path (2015 – 2024), Discos will be held accountable for performance improvement of year 1 in 2015, relevant revenue shortfalls that resulted from the freezing of Residential R2 tariffs and the removal of collection losses in 2015 were computed and recognized in the Discos' tariffs from year 2016 going forward.

10. Customer Classification

The decision on how to recover the revenue requirement (who pays what) is the responsibility of the Discos. KAEDCO has therefore reclassified its customer categories (Table 3) by adding more customer classes to reflect the uniqueness and characteristics of different customers present in KAEDCO.

Table 3: KAEDCO's Customer Classification

Customer Classification	Description	Remarks
Residential		
R1	Life-Line (50 kWh)	
R2-SP	Single phase	
R2-TP	Three (3) phase	A consumer who uses his premises exclusively as a residence- house, flat or multi- storied house
R3	LV/Maximum Demand	
R4	HV/Maximum Demand (11/33 KV)	
Commercial		
C1	Single and 3-phase	A consumer who uses his premises for any purpose other than exclusively as a residence or as a factory for manufacturing goods.
C2	LV/Maximum Demand	
C3	HV/Maximum Demand (11/33 KV)	
Industrial		
D1	Single and 3-phase	A consumer who uses his premises for manufacturing goods including welding and ironmongery
D2	LV/Maximum Demand	
D3	HV maximum Demand (11/33 KV)	
Special		
A1	Single and 3 Phase	Customers such as agriculture and agro-allied industries , water boards, religious houses, government and teaching hospitals, government research institutes and educational establishments.
A2	LV/Maximum Demand	
A3	HV/Maximum Demand (11/33 KV)	
Street Lighting		
S1	Single and 3-phase	



11. Changes in Macro Economic Indices

- (1) Section 7 of each of the three MYTO-2 (2012) Tariff Orders for Generation, Transmission and Distribution mandates the Commission to carry out the bi-annual minor review of MYTO. The Orders state very clearly the variables that are to be considered during the minor review. These variables are:
 - a. Exchange Rate
 - b. Gas price
 - c. Rate of inflation
 - d. Generation Capacity

- (2) In line with the provisions of the law, the Commission carried out a minor review of the tariff in 2015 and have incorporated the changes in these minor review indices in MYTO-2015 financial model. The data used for this review is as follows:
 - a. **Inflation** – the inflation rate of 8.3% was used based on the data from the National Bureau of Statistics (NBS) as at 30th October 2015.

 - b. **Exchange Rate** –The data from Central Bank of Nigeria shows an exchange rate of N197 to US\$1.0 as at 30th October 2015. Please note that MYTO-2 also allows a premium of 1% above CBN rate.

Therefore, 1% of 197=1.97

CBN exchange rate +1% premium is therefore 197+1.97= 198.97

 - c. **US rate of inflation** – the US rate of inflation from the US Bureau of Labor Statistics website shows the US inflation rate to be 0.2% as at 30th October 2015.

 - d. **Gas Price** - The gas price has been regulated since the inception of MYTO in 2008. Following NNPC and NGC's application to NERC for the review gas supply and transportation prices for electricity generation in Nigeria, the Commission has approved new gas price of \$2.50/MMBTu and gas transportation cost of \$0.80/MMBTu with effect from 1st January 2016. The new gas prices will enable Gencos to sign their gas supply and transportation agreements as required by their suppliers and necessary to attain effective contracts in the Transitional Electricity Market (TEM).



12. GENERATION CAPACITY

The Commission obtained the data (Table 4) on projected generation capacity for five years (2016-2020) from the System Operator (SO) and Nigerian Bulk Electricity Trading Company (NBET). The data made available is used for the purpose of this review. However, going forward the periodic minor review of the tariff will take into consideration changes/fluctuations in the generation capacity. In essence, the minor reviews will reflect the actual peak generation capacity for each generator. This is in line with the Regulation on Rate Review for the NESI.

Table 4: Projected Generation Capacity

List of GENCOS	2016	2017	2018	2019	2020
KAINJI	165	192	218	300	400
JEBBA	202	241	287	364	462
SHIRORO	242	289	344	436	554
EGBIN	1,006	1,100	1,100	1,100	1,100
SAPELE	101	117	134	300	400
DELTA	515	614	732	900	900
AFAM IV-V	100	200	300	400	500
GEREGU GAS	159	185	210	246	282
OMOTOSHO GAS	254	303	336	336	336
OLORUNSOGO GAS	231	275	328	336	336
GEREGU NIPP	213	248	282	330	378
SAPELE NIPP	116	135	153	180	250
ALAOJI NIPP	130	151	300	400	500
OLORUNSOGO NIPP	194	225	256	300	344
OMOTOSHO NIPP	226	262	298	349	400
IHOVBOR NIPP	279	333	397	504	508
OKPAI					

	452	480	480	480	480
AFAM VI	529	631	650	650	650
IBOM POWER	100	119	142	180	190
OMOKU	-	100	200	250	250
A.E.S.	50	200	200	200	200
TRANS AMADI	-	100	100	200	200
RIVERS IPP	50	100	100	200	200
ASCO	50	100	100	100	100
ODUKPANI	100	200	300	400	413
GBARAIN NIPP	-	100	200	200	200
EGBEMA NIPP	-	100	200	200	200
OMOKU NIPP	-	100	200	200	200
AZURA			450	450	450
Total	5,465	7,199	8,999	10,493	11,383

13. Distribution/Retail Cost

- (1) Each Disco's tariff comprises of the estimated share of power costs, share of transmission costs, institutional charges and distribution/retail cost together in a building blocks framework, summing the running costs (operation, maintenance, administration and metering and billing) with the return on capital and the return of capital (depreciation).
- (2) Allowance was provided to Discos to cover reasonable administrative, operational and maintenance costs such as salaries and allowances, pension costs workman compensation insurance and staff welfare. It also provides for funds required to carry out both routine and unscheduled maintenance of all sub-stations, transformers, lines and cables (underground and overhead) and ensure regular line tracing and vegetation control.



(3) Capital expenditures are projected and provided to cover the replacement of obsolete equipment, relief of existing overloaded equipment and expansion of the existing network. Provision is also made for procuring retail meters, operational vehicles, ICT and customer care platforms to enhance the level of service to customers. The Commission did not provide additional CAPEX for KAEDCO in this review. However the Commission notes that a review of CAPEX is an issue for a full-scale major review. Therefore, any Disco desiring a review of CAPEX shall do so in the context of justifying the need for a major review in accordance with the MYTO Methodology and in line with the approved Guidelines on Tariff Review.

(4) The OPEX in MYTO-2 (2012) was also maintained for the benefit of consistency and considering that it is also a major review variable. It is therefore pertinent to note that the principle, rules and procedures for the review of CAPEX also apply to OPEX.

14. Institutional Charges

KAEDCO will be required to pay a number of charges to facilitate the costs of running the NESI. These institutions are:

- a. The System Operator (SO) is responsible for system planning and dispatch of available generation in line with system requirements. The SO is also responsible for the procurement and utilisation of ancillary (grid reliability) services.
- b. The Market Operator (MO) in TEM is responsible for producing monthly market settlement statements in the wholesale trading of electricity and invoicing market participants for institutional services rendered by the market. Payments/settling of accounts/invoices will be done bilaterally between contractual counterparties.
- c. The Bulk Trader is the entity charged with the responsibility for intermediating between all Discos and Gencos and acting as the guarantor of the credit worthiness of Discos. The Bulk Trader's charges will be paid by the Discos.
- d. NERC charge covers regulatory cost of licensing, monitoring, enforcement, review and administration functions of the regulator. It also includes the costs of managing various Industry Panels in the NESI established in line with the provisions of the Market Rules, Grid Code, Metering Code, Customer Service Standards and other regulations. These charges are currently set at 1.5% of distribution/retailer revenues.



15. Bulk Power Procurement (Open Book):

Henceforth NERC will recognize prices agreed between KAEDCO and embedded generators or other independent power producers and generation project promoters as long as such procurement of generation is done prudently even where the agreed prices are higher than the MYTO benchmark prices for generation.

16. KAEDCO's Retail Tariff

- a. Retail tariffs, as required by Section 76(2), EPSRA, must reflect the costs associated with providing service to each customer, plus a reasonable return. Exceptions are made for lifeline (R1 or low-income) customers. One of NERC's most important functions is to ensure that only prudent costs are passed to customers. Thus, even though NERC is required to ensure a cost-reflective tariff, NERC is in turn obliged to drive licensees to reduce losses and deliver quality service.
- b. In this way, the NERC will ensure that each class of customer pays a tariff that covers for that particular class only. The retail cost of electricity covers generation cost, transmission use of system cost, the Discos' distribution costs and costs associated with metering, billing, marketing and revenue collection. Finally, there are the various regulatory, bulk trader and market administration charges. The tariffs approved for KAEDCO represents the uniqueness of KAEDCO and the cost associated with supplying power to consumers within that KAEDCO's franchise area.
- c. The retail tariffs for KAEDCO stated below (Table 5) and represented in the MYTO-2015 financial model are applicable until a revised tariff is approved by NERC.



Table 5: KAEDCO's Energy Charges ₦/kWh

Class	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
R1	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
R2-SP	17.00	26.37	27.40	28.75	20.45	19.74	19.75	19.50	19.37	19.21
R2-TP	17.00	28.05	32.33	33.93	24.13	23.29	23.30	23.01	22.86	22.67
R3	34.30	42.74	42.74	44.85	31.90	30.80	30.81	30.42	30.22	29.97
R4	34.30	45.76	48.77	51.18	36.40	35.14	35.15	34.71	34.49	34.20
C1	23.52	31.20	31.20	32.73	23.29	22.48	22.48	22.20	22.06	21.87
C2	31.88	37.88	39.73	41.69	29.66	28.62	28.63	28.27	28.09	27.86
C3	31.88	44.22	47.13	49.45	35.18	33.95	33.97	33.54	33.32	33.04
D1	25.72	36.95	34.11	35.79	25.46	24.58	24.58	24.27	24.12	23.92
D2	33.42	39.13	40.28	42.26	30.06	29.02	29.03	28.66	28.48	28.24
D3	33.42	44.22	47.13	49.45	35.18	33.95	33.97	33.54	33.32	33.04
A1	24.62	33.17	35.34	37.09	26.38	25.47	25.47	25.15	24.99	24.78
A2	24.62	38.56	41.10	43.13	30.68	29.61	29.62	29.25	29.06	28.82
A3	24.62	39.13	47.13	49.45	35.18	33.95	33.97	33.54	33.32	33.04
L1	20.86	30.30	41.10	43.13	30.68	29.61	29.62	29.25	29.06	28.82

17. Bi-Annual Review

- (1) NERC will continue to review KAEDCO's tariffs bi-annually as part of the minor review. However, with effect from the issuance of this MYTO-2015 Order, minor reviews will henceforth apply retroactively by taking into account changes (gains/losses) that occurred within the minor review period in adjusting KAEDCO's tariffs bi-annually. This is fair to both KAEDCO and its customers in order not unduly shortchange any party on account of market indices not fully within their control.
- (2) NERC will vary KAEDCO's tariffs during minor reviews if there is a material change in the inflation rate, exchange rate and generation capacity used in the derivation of KAEDCO's Tariffs. NERC considers that a material change would be plus or minus 5% in the minor review indices.

18. Date and NERC Performance Targets

From 1st January 2016, KAEDCO will be held accountable for service improvements in relation to the Performance Agreement and service standards stated below. These standards are designed to result in a rapid increase in technical performance, customer care and regulatory compliance:

- a. Distribution Companies must adhere strictly to the approved minimum benchmark for covering their metering gaps as contained in their respective Performance Contract.
- b. Discos are encouraged to surpass their metering targets and this would be very closely monitored by the Commission
- c. In line with the Commission's Regulation on Meter Reading Billing and Collection as well as Connection and Disconnection Regulation, all new connections must be done strictly on the basis of metering before connection.
- d. All customers who paid for CAPMI must be metered within the time stipulated in the Commission's Resolution or not billed after the 60 days time limit for metering. In the period after the expiration of the 60 days such customers cannot be disconnected.
- e. KAEDCO is expected to strictly adhere to the estimated billing methodology failure to which will attract appropriate sanctions and penalties.
- f. Any unmetered customer who is disputing his estimated bill would not be expected to pay the disputed bill. He would only pay his last undisputed bill as the contested bill go through the dispute resolution process.
- g. Discos are mandated to complete metering of unmetered customers within one year after which no more estimation of customers. Discos can finance rapid deployment of meters and have the capex for such extra meter rollout imputed back to the Revenue Requirement (RR) and recover through tariff.
- h. KAEDCO shall be penalized for rejecting supply based on its load allocation. Where KAEDCO does not take its allocation for any reason other than SO's instructions, KAEDCO shall compensate TCN for attributable loss in revenue. KAEDCO will also be compensated by TCN for imbalance in revenue resulting from TCN's inability to deliver allocated energy due to transmission grid constraints.
- i. Discos are required to submit their energy demand studies and reports on customer enumeration studies within one year after approving the tariffs for NERC's verification and subsequent adjustment to Disco tariffs accordingly.



19. Following consultation with relevant stakeholders, the Commission hereby orders that-

- (1) This Distribution/Retail Tariff Order as described above shall be effective from 1st February 2016;
- (2) The Table of Energy Charges for Kaduna Electricity Distribution Company that shall come into effect from 1st February 2016 and continue to be in force until 31st December 2024 is as shown hereinbefore, subject to the provisions of this Order.
- (3) Upon coming into effect, the said Energy Charges shall continue in force subject to such minor and major reviews as the Commission may conduct from time to time.
- (4) This Order shall be called the Multi-Year Tariff Order (MYTO) 2015 for Kaduna Electricity Distribution Company (KAEDCO).

20. Effective Date

This Order shall be effective from 1st February 2016.

Dated at Abuja this 21st day of December 2015



Dr. Sam Amadi
Chairman/CEO



Dr. Steven Andzenge
Commissioner
(Legal Licensing and Enforcement)

