

The Need for Tariff Adjustment by the Distribution Companies in Nigeria.

N.T. Mankanjuola¹; O. Shoewu^{1*}; L.A. Akinyemi^{1,2}; and E.O. Imohimi¹

¹Department of Electronic and Computer Engineering, Lagos State University, Epe-Lagos, Nigeria.

²Department of Electrical Engineering, Faculty of Engineering and the Built Environment, University of Cape Town, South Africa.

E-mail: engrshoewu@yahoo.com *
tunjimakanjuola@yahoo.com
LTFAKI001@myuct.ac.za

ABSTRACT

The aim of this paper is to investigate the needs for the distribution companies (Disco) in Nigeria related to the review of electricity tariff. The Multi Year Order (MYTO) model is used as a method and the analysis of the pricing mechanism adopted by the Disco as a result of increase in price of electricity tariff imposed on the consumers by Disco. This work analyzed the present exchange rate of the Naira in the international market, the present electricity generation rate, and the inflation rates as compared against the projected rise as predicted by the MYTO using tariff as set by Eko Electricity Distribution Company. These factors were then represented by charts and then subjected to mathematical analysis showing clearly what the appropriate charge should be.

It was discovered that the projected rise in these factors which are the rationale for tariff adjustment is far below the projection as made by MYTO and yet the energy per KWH (Kilowatt Hour) across the various classes except the R1 class kept increasing and this calls for a tariff review by the Distribution companies to enable customers have good pricing scheme as well as quality of services for the money paid. Striking results were obtained at the end of this study.

(Keywords: MYTO, electricity tariff, KWH, exchange rate, inflation)

INTRODUCTION

Power is the heart beat of any economy because every other sector relies on electricity in one way or the other. Presently in the country of Nigeria, the demand for electricity far outshines the generated electricity. Despite the availability of

natural resources in the country, the country is still faced with high levels of inefficiency in the power sector. The Nigerian power sector is made up of three parts namely Generation, Transmission, and Distribution.

Generation

The generation of electricity in the country dates back to 1896 when electricity was first produced in Lagos, exactly fifteen years after it was introduced in England. Despite its introduction at a very early period, its growth was at a very slow pace. Widespread distribution did not occur until 1950 when a central body was established by the legislative council which transferred electricity supply and development to a body then called Electricity Corporation of Nigeria (now obsolete).

For more than twenty years the sector was on a halt, and not until 1999 did the power sector witness much investment in terms of infrastructural development. There was no construction of new plants and no proper maintenance of the existing ones which led to a massive deterioration of the industry. In 2001, generation went down from the installed capacity of about 5,600MW to an average of about 1,750MW, as compared to a load demand of 6,000MW. Also, only nineteen out of the seventy-nine installed generating units were in operation [1].

Currently there are 23 grid connected plants which are involved in power generation. This grid has an installed capacity of 10,396MW and available capacity of 6,056MW. Most of the generating plants in Nigeria are thermal based and use a cheap form of fuel gas.

Transmission

After the sale of PHCN, the Transmission Company of Nigeria was born. It is being managed by a contractor, Manitoba Hydro International (Canada). Currently the transmission system in Nigeria is made of about 5,523.8 km of 330 KV lines and 6,801.49 km of 132 KV lines.

Distribution

The distribution companies are responsible for the retail sales of electricity to consumers, there are currently 11 electricity distribution companies in Nigeria. They are:

- Kaduna Distribution Company
- Kano Distribution Company
- Yola Distribution Company
- Abuja Distribution Company
- Jos Distribution Company
- Ibadan Distribution Company
- Ikeja Distribution Company
- Eko Distribution Company
- Benin Distribution Company

- Port Harcourt Distribution Company
- Enugu Distribution Company

LITERATURE REVIEW

The cost of electricity under the leadership of NEPA followed an irregular path and there was at no time any significant change in charges, not until 2002 when average charges rose from 4.50/KWH to about 6/KWH. During this period electricity prices were generally lower than production cost.

In January 2006, PHCN requested an average increase in its tariff by 60% from the tariff that had been operative since 2002. The Commission considered this along with the industry's performance over recent years. At this stage the power sector was not lucrative and did not attract investors and there arose the need of a form of regulation to be set by NERC. The government later approved electricity prices between N6/kwh to N8/kwh for industrial users, N8/kwh to 12/kwh for higher demand users, but the cost of electricity production was N10/Kwh.

Table 1: MYTO Tariff Plan for Year 2008.

Tariff code	Fixed N/month	Meter N/month	Minimum N/Month	Demand N/KVA	Energy N/KWh
Residential					
R1	24	121	24	0.00	1.2
R2	36	121	36	0.00	4.0
R3	145	603	145	0.00	6.0
R4	145	1930	6,031	0.00	8.5
R5	0	2654	37,695	0.00	8.5
Commercial					
C1	107	119	107	0.00	6.5
C2	142	593	142	0.00	8.5
C3	285	1,897	5,929	202.02	8.5
C4	0	2,609	37,057	21.96	8.5
Industrial					
D1	106	118	106	0.00	6.5
D2	141	588	141	0.00	8.5
D3	282	1,822	5,882	217.20	8.5
D4	0	2,588	36,761	236.09	8.5
D5	0	2,588	1,764,505	254.97	8.5
Special					
A1	143	597	143	0.00	5.7
A2	286	1,909	5,966	0.00	5.7
A3	0	2,625	37,288	0.00	5.7
A4	0	2,625	37,288	0.00	5.7
Street Lighting					
S1	0	551	296	0.00	6.5

MYTO which is a 15 years tariff vehicle was then introduced to drive the power sector. It is a clear, transparent, consultative, and evidence-based approach to tariff setting.

Guarantees to investors that they will continue to recover their investments towards providing adequate and reliable electricity in Nigeria, are based on a set of pricing principles and cost assumption [11]. MYTO 1 which was introduced

in 2008 was from 1st July 2008 to 30th June 2013 to cater for the cost of production incurred by the three sub-sectors of the Nigeria power sector.

Though for the first 3 years of its introduction the government put in a form of subsidy in order to allow citizens in the country adjust to this pricing methodology after then the subsidy was to be removed. MYTO 2 was to run from 2013 to 2017.

Table 2: MYTO Tariff Plan for 2009.

Tariff Code	Fixed N/Month	Meter N/Month	Minimum N/month	Demand N/KVA	Energy N/KWh
Residential					
R1	31	154	31	0.00	1.3
R2	46	154	46	0.00	4.4
R3	185	772	185	0.00	6.6
R4	185	2,469	7,716	0.00	9.4
R5	0	3,395	48,228	0.00	9.4
Commercial					
C1	138	153	138	0.00	7.4
C2	184	767	184	0.00	9.7
C3	368	2,456	7,673	262.53	9.7
C4	0	3,376	47,959	28.54	9.7
Industrial					
D1	136	151	136	0.00	7.9
D2	181	755	181	0.00	10.3
D3	362	2416	7,550	278.88	10.3
D4	0	3,322	47,188	303.13	10.3
D5	0	3,322	2,265,011	327.38	10.3
Special					
A1	161	671	161	0.00	6.9
A2	322	2,147	6,709	0.00	6.9
A3	0	2,952	41,930	0.00	6.9
A4	0	2,952	41,930	0.00	6.9
Street Lighting					
S1	0	651	312	0.00	5.9

Table 3: MYTO Tariff plan for 2010.

Tariff code	Fixed N/Month	Meter N/Month	Minimum N/Month	Demand N/KVA	Energy N/KWh
Residential					
R1	41	204	41	0.00	1.8
R2	61	204	61	0.00	5.9
R3	245	1,019	245	0.00	8.9
R4	245	3,260	10,188	0.00	12.5
R5	0	4,483	63,676	0.00	12.5
Commercial					
C1	174	193	174	0.00	9.4
C2	232	967	232	0.00	12.3
C3	464	3,094	9,668	332.10	12.3
C4	0	4,254	60,426	36.10	12.3
Industrial					
D1	170	189	170	0.00	9.8
D2	226	943	226	0.00	12.9
D3	452	3,017	9,427	348.28	12.9
D4	0	4,148	58,917	378.56	12.9
D5	0	4,148	2,828,031	408.85	12.9
Special					
A1	237	986	237	0.00	8.6
A2	473	3,154	9,857	0.00	8.6
A3	0	4,337	61,606	0.00	8.6
A4	0	4,337	61,606	0.00	8.6
Street Lighting					
S1	0	751	361	0.00	6.8

Table 4: MYTO Tariff Plan for 2011.

Tariff Code	Fixed N/Month	Meter N/Month	Minimum N/Month	Demand N/KVA	Energy N/KWh
Residential					
R1	50	250	50	0.00	2.2
R2	75	250	75	0.00	7.3
R3	300	1,251	300	0.00	11.0
R4	300	4,003	12,509	0.00	15.6
R5	0	5,504	78,178	0.00	15.6
Commercial					
C1	200	227	204	0.00	11.1
C2	272	1,134	272	0.00	14.5
C3	544	3,629	11,340	391.05	14.5
C4	0	4,990	70,874	42.51	14.5
Industrial					
D1	201	223	201	0.00	11.7
D2	268	1,116	268	0.00	15.2
D3	536	3,570	11,157	412.31	15.2
D4	0	4,909	69,733	448.16	15.2
D5	0	4,909	3,347,191	484.01	15.2
Special					
A1	120	500	120	0.00	11.2
A2	240	1,600	5,000	0.00	11.2
A3	0	2,200	31,250	0.00	11.2
A4	0	2,200	31,250	0.00	11.2
Street Lighting					
S1	0	940	451	0.00	8.6

Table 5: MYTO Tariff Plan for 2012.

Tariff Code	Fixed N/Month	Meter N/Month	Minimum N/Month	Demand N/KVA	Energy N/KWh
Residential					
R1	50	250	50	0.00	2.2
R2	75	250	75	0.00	7.4
R3	300	1,251	300	0.00	11.2
R4	300	4,005	12,515	0.00	15.8
R5	0	5,506	78,217	0.00	15.8
Commercial					
C1	208	231	208	0.00	11.3
C2	277	1,154	277	0.00	14.8
C3	554	3,692	11,536	339.32	14.8
C4	0	5,076	72,101	43.40	14.8
Industrial					
D1	208	231	208	0.00	12.1
D2	277	1,155	277	0.00	15.8
D3	554	3,696	11,549	426.89	15.8
D4	0	5,082	72,184	464.01	15.8
D5	0	5,082	3,464,822	501.13	15.8
Special					
A1	290	1,208	290	0.00	11.6
A2	580	3,864	12,077	0.00	11.6
A3	0	5,314	75,478	0.00	11.6
A4	0	5,314	75,478	0.00	11.6
Street Lighting					
S1	0	1,043	501	0.00	9.6

Rationale for Tariff Review

The Multi Year Tariff Order allows both minor and major reviews to be carried out so as to keep the tariffs within the current market prices.

The following factors are taken into consideration for a review to be carried out on the MYTO, they include:

- Rate of Inflation
- Gas prices
- Foreign exchange rates
- Actual generation capacity

Reviews carried out on the MYTO 1, gave rise to MYTO 2 which created 14 different tariff classes and this is represented in the table below.

Table 6: Tariff Code Description.

Code	Description
R1	Consumption is below 50 KWH/month, Customer in this class have typically one fan, radio, 2-3 light bulbs
R2	Consumption is above 50 KWH/month. Majority of households fall under this category.
R3	Large residences (e.g. government house, small estates) have dedicated transformer and maximum demand (MD) meters
R4	Large estates, also with dedicated transformers and MD Meters.
C1	Small businesses (e.g. small barbing and hair dressing salons).
C2	Hotels, also with dedicated transformers and MD meters.
C3	Large supermarkets/hypermarkets with dedicated transformers and MD meters.
D1	Small industries (welders, pure water packagers, etc.)
D2	Larger scale industries (e.g. metal fabrication) with dedicated transformers and MD meters
D3	Oil companies, large construction companies with dedicated transformers and MD meters.
A1	Schools, mosques, and churches
A2	Medium sized army barracks with dedicated transformers and MD meters
A3	Large barracks, large agricultural processing companies with dedicated transformers and MD meters
L1	Street lights.

MATHEMATICAL ANALYSIS OF MYTO

Tariff as set by the MYTO is based on critical approximation, and projections on the factors as mentioned above. We would be comparing the approximate projections made by the MYTO to the calculated appropriate projections and using the tariff as set by the Eko Distribution Company as the yardstick to carry this out.

Predictions as made by the MYTO

- MYTO had projected an inflation rate of 13% during a period as at Dec 2012 when inflation was about 12% but the inflation rate as at Nov 31st 2014 was 7.9 % which is 5.1% less than the projected figure. Which indicates this excess of 5.1% which has already been accumulated into the bills of customers should be visited.
- Similarly MYTO projected an exchange rate of \$1 to N178 , which accounts for 13.1% increment in the exchange rate as at Dec 2012 which was \$1 to N157.31, but the present exchange rate as at 31st December 2014 is \$1 to N169.68, which is lesser than the projected rate as developed by the MYTO. Which is a 7.9% Increase, This indicates the GENCOS are being over paid.
- Also as at march 31st 2014 the gross available capacity from the grid is 4306MW which is very much below the projected 9061MW, which was a 50.3% increase in generation. It turned out to be a 52% reduction on projected capacity which in turn causes low quantity electricity to be sold at a higher amount. Generation as at Dec 2012 Peaked to about 4500MW. Power generation in 2014 rather ended on a lower note and available capacity never lived up to Nigeria Electricity Regulatory Commission (NERC) projected capacity.

Inflation Rate:

Inflation Rate = 12% as at December 2012

MYTO projected inflation Rate = 13%

Projected inflation rise = 1%

Inflation Rate = 7.9% as at Dec 31st 2014

(Appropriate projection)% = 12 – 7.9 = -4.1% loss

(Sum of Projected inflation rise & Appropriate projection)% = 1-4.1

= -3.17%

Exchange Rate:

Exchange Rate was 1\$ to N157.31 as at December 2012

MYTO projected exchange rate to 1\$ to N178

Projected % Rise = $\frac{178 - 157.31}{157.31} \times 100$

= 13.1 %

Exchange Rate was 1\$ to N169.68 as at December 2014

Appropriate %Rise = $\frac{169.68 - 157.31}{157.31} \times 100$

=7.9 %

Excess in Projection = (13.1 – 7.9)
=4.1 %

Available Generating Capacity:

Generating Capacity was 4500MW in December 2012

MYTO projected generating capacity to 9061MW

% increase generating Capacity = $\frac{9061 - 4500}{4500} \times 100$

=101.36%

Generating capacity as at December 2014 was 3600MW

Appropriate Change in generating Capacity = $\frac{4500 - 3600}{4500} \times 100$

= -20% loss

(Sum of Projected & Appropriate generating capacity)% = 100.36 – 20

=81.36%

Gas Prices:

MYTO projected that Gas prices was to remain constant to encourage investors

Appropriate Billing Tariff

Energy Charge Per KWH

Table 7: Appropriate to Consumer Charges.

Major Factors	Approximate Projection (%)	Calculated projection (%)	Excess in Projection (%)
Inflation rate	1	4.1	-3.17
Exchange rate	13.1	7.9	4.1
Generating capacity	100.36	-20	-81.36

Formula to be Applied in Calculating the Recommended Tariff Billing

Mean value = $\frac{\Delta(\% \text{ inflation rate on energy charge for the class} + \% \text{ Exchange rate on energy charge for the class} + \% \text{ Available generating capacity})}{3}$

The above formula will be applied on EKEDC tariff plans.

Table 8: EKEDC Tariff Plans for 2014 & 2015.

Tariff codes	Energy charges Per KWH (2014)	Energy charges Per KWH (2015)	Fixed Charges
R1	4.00	4.00	Nil
R2	15.63	19.12	750
R3	23.71	29.09	31,898
R4	23.71	23.71	136,665
C1	15.84	19.39	750
C2	22.04	26.97	22,170
C3	22.04	26.97	118,501
D1	17.78	21.76	905
D2	23.10	28.28	116,594
D3	23.10	28.28	118,501
S1	13.07	16.00	750
A1	17.02	20.83	750
A2	17.02	20.83	52,250
A3	17.02	20.83	58,438

Source : EKEDC MYTO Tariff Table

RESULTS AND DISCUSSION OF RESULTS

Calculating the Appropriate Tariff for R1 Customers

MYTO energy charge for R1 customers is N4/KWH.

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 4 = 0.1268$$

$$\text{New rate} = 4 - 0.1268 = \text{N}3.873$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 4 = 0.164 \text{ profit}$$

$$\text{New rate} = 4 + 0.164 = \text{N}4.164$$

$$\begin{aligned} \text{Available generating capacity} &= -81.36\% \\ &= \frac{81.36}{100} \times 4 = \text{N}3.25 \text{ loss} \end{aligned}$$

$$\text{New rate} = 4 - 3.25 = \text{N}0.75$$

$$\text{Mean Value} = \frac{3.873 + 4.164 + 0.75}{3} = \text{N}3$$

The Appropriate Tariff for R2 Customers

MYTO energy charge for R2 customers is N19.12/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 19.12 = 0.6061$$

$$\text{New rate} = 19.12 - 0.6061 = \text{N}18.514$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 19.12 = 0.7840$$

$$\text{New rate} = 19.12 + 0.7840 = \text{N}19.90$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 19.12 = \text{N}15.57$$

$$\text{New Rate} = 19.12 - 15.57 = 3.5640$$

$$\text{Mean Value} = \frac{18.514 + 19.90 + 3.5640}{3} = \text{N}14$$

The Appropriate Tariff for R3 Customers

MYTO energy charge for R3 customers is N29.09/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 29.09 = 0.9222$$

$$\text{New rate} = 29.09 - 0.9222 = \text{N}28.1678$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 29.09 = \text{N}1.1927$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 29.09 = \text{N}23.67$$

$$\text{New Rate} = 29.09 - 23.67 = \text{N}5.4224$$

$$\begin{aligned} \text{Mean value} &= \frac{28.1678 + 30.2827 + 5.4224}{3} \\ &= \text{N}21.3 \end{aligned}$$

The Appropriate Tariff for R4 Customers

MYTO energy charge for R4 customers is N23.71/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 23.71 = \text{N}0.7516$$

$$\text{New rate} = 23.71 - 0.7516 = \text{N}22.9584$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 23.71 = 0.9721$$

$$\text{New rate} = 23.71 + 0.9721 = \text{N}24.6821$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 23.71 = \text{N}19.2905$$

$$\text{New Rate} = 23.71 - 19.2905 = \text{N}4.42$$

$$\begin{aligned} \text{Mean Value} &= \frac{24.6821 + 22.9584 + 4.42}{3} \\ &= \text{N}17.35 \end{aligned}$$

The appropriate Tariff for C1 Customers

MYTO energy charge for C1 customers is N19.39/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 19.39 = \text{N}0.6147$$

$$\text{New rate} = 19.39 - 0.6147 = \text{N}18.7775$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 19.39 = 0.7950$$

$$\text{New rate} = 19.39 + 0.7950 = \text{N}20.1850$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 19.39 = \text{N}15.776$$

$$\text{New Rate} = 19.39 - 15.776 = \text{N}3.6143$$

$$\begin{aligned} \text{Mean Value} &= \frac{18.775 + 20.1850 + 3.6143}{3} \\ &= \text{N}14.2 \end{aligned}$$

The Appropriate Tariff for C2,C3 Customers

MYTO energy charge for C2,C3 customers is N26.97/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 26.97 = \text{N}0.8550$$

$$\text{New rate} = 26.97 - 0.8550 = \text{N}26.1151$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times \text{N}26.97 = \text{N}1.1058$$

$$\text{New rate} = \text{N}26.97 + \text{N}1.1058 = \text{N}28.076$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 26.97 = 21.943$$

$$\text{New Rate} = 26.97 - 21.943 = \text{N}5.027$$

$$\text{Mean Value} = \frac{26.1151 + 28.076 + 5.027}{3} = \text{N}19.74$$

The appropriate Tariff for D1 Customers

MYTO energy charge for D1 customers is N21.76/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 21.76 = \text{N}0.6898$$

$$\text{New rate} = 21.76 - 0.6898 = \text{N}21.07$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 21.76 = \text{N}0.8922$$

$$\text{New rate} = \text{N}21.76 + \text{N}0.8922 = \text{N}22.6522$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 21.76 = 17.70$$

$$\text{New Rate} = 21.76 - 17.70 = \text{N}4.056$$

$$\text{Mean Value} = \frac{21.07 + 22.6522 + 4.056}{3} = \text{N}15.9$$

The appropriate Tariff for D2,D3 Customers

MYTO energy charge for D1 customers is N28.28/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 28.28 = \text{N}0.8965$$

$$\text{New rate} = 28.28 - 0.8965 = \text{N}27.384$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 28.28 = \text{N}1.1595$$

$$\text{New rate} = \text{N}28.28 + \text{N}1.1595 = \text{N}29.43$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 28.28 = 23.01$$

$$\text{New Rate} = 28.28 - 23.01 = \text{N}5.27$$

$$\text{Mean Value} = \frac{27.384 + 29.43 + 5.27}{3} = \text{N}20.69$$

The Appropriate Tariff for S1 Customers

MYTO energy charge for S1 customers is N16/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 16 = \text{N}0.5072$$

$$\text{New rate} = 16 - 0.5072 = \text{N}15.493$$

Exchange Rate = 4.1%

$$\text{Profit} = \frac{4.1}{100} \times 16 = \text{N}0.656$$

$$\text{New rate} = \text{N}16 + \text{N}0.656 = \text{N}16.656$$

Available generating capacity = -81.36%

$$\text{Loss} = \frac{81.36}{100} \times 16 = 13.0176$$

$$\text{New Rate} = 16 - 13.0176 = \text{N}2.9824$$

$$\text{Mean Value} = \frac{15.493 + 16.656 + 2.9824}{3} = \text{N}11.7$$

The Appropriate Tariff for A1, A2, A3 Customers

MYTO energy charge for A1,A2,A3 customers is N20.83/KWH

Inflation rate = -3.17%

$$\text{Loss} = \frac{3.17}{100} \times 20.83 = \text{N}0.6603$$

New rate = 20.83 – 0.6603 = N20.1697

Exchange Rate = 4.1%

Profit = $\frac{4.1}{100} \times 20.83 = N0.854$

New rate = N20.83 + N0.854 = N21.684

Available generating capacity = -81.36%

Loss = $\frac{81.36}{100} \times 20.83 = 16.947$

New Rate = 20.83 – 16.947 = 3.8827

Mean Value = $\frac{20.1697 + 21.684 + 3.8827}{3}$
= N15.25

CONCLUSIONS

This research has been able to show the reasons why EKEDC needs to review their Tariff charges and an appropriate tariff was suggested which would be economical to consumers and at the same time the Disco would not run at a loss.

RECOMMENDATIONS

One of the objectives of the study was to make appropriate recommendations for the successful Review of the Present Tariff Plan the MYTO 2.1. Thus, the following listed recommendations are considered to be ideal for the successful Review of the present tariff methodology.

Generation should dramatically increase past the present levels: More emphasis should be made for more power to be generated and with the economy being favorable for private investors.

Provision of electricity at all times: EKEDC should also ensure customers have access to electricity every day of the week by opening every day of the week. EKEDC should introduce vending machines/kiosks or appoint agents to sell units on public holidays whenever and wherever the corporation cannot manage to ensure customers have electricity all the time.

Gas prices should be regulated: Generation of electricity is shifting gradually from the orthodox methods and for the first time in recent history

other means of generating electricity is beginning to take a better shape. Gas, which in past years has been flared, is now been considered as an alternate means to generate electricity.

Policies should be put in place which would favor the growth of the Naira: Exchange rates of the Naira play a major role in deciding whether or not the MYTO should be revised. Policies which would favor economic activities within the country should be encouraged.

Abolition of Fixed Charges: The idea of customers having to be charged for not consuming electricity is absurd and should be abolished. Customers should get value for their money and should not be responsible for maintenance of the subsectors of the power sector.

The authors strongly recommend that Energy Charges under MYTO should be clearly drawn out as in the table below. The authors, having proved that the major approximations made by MYTO fell by more than 11% using the standards on which reviews should be based, recommend that a more accurate accounting be presented to consumers.

Table 9: The Appropriate Tariff across all Tariff Classes.

Tariff Code	Energy charge Per KWH
R1	3
R2	14
R3	21.3
R4	17.35
C1	14.15
C2	19.688
C3	19.688
D1	15.9
D2	20.64
D3	20.64
S1	11.68
A1	15.21
A2	15.21
A3	15.21

FURTHER RESEARCH

With the MYTO still being the tariff vehicle driving the power sector in Nigeria (an approximate value system) there is a need for further work to

be done as major reviews are carried out on the MYTO, in order to protect energy consumers.

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SUGGESTED CITATION

Makanjuola, N.T., O. Shoewu, L.A. Akinyemi, and E.O. Imohimi. 2015. "The Need for Tariff Adjustment by the Distribution Companies in Nigeria". *Pacific Journal of Science and Technology*. 16(2):32-42.

