



# **NIGERIAN ELECTRICITY REGULATORY COMMISSION**

## **CUSTOMER CLASSIFICATION IN NIGERIAN ELECTRICITY SUPPLY INDUSTRY**

BY

Emeka O (Asst. Manager)

MARKET ,COMPETITION & RATES DIVISION

Sept, 2010

# Outline

1. Background
2. Principles of rate design
3. Objectives of Rate Design
4. Rate Elements
5. Customer Classification
6. Challenges



# Background

- In all markets, prices paid is a function of costs which include an allowed return on investment, and affordability as determined by the regulator
- All efficient and prudent costs are summed up as revenue requirement and allocated to defined customer tariff classes
- Utility tariff contains many prices for different customers category reflecting varying degree of cost imposed by customers
- These prices when multiplied by the related billing period and units recovers the revenue requirement for the industry
- Total revenue requirement must be recovered through the tariffs , the market must pay all participants.



# Background ...

- NERC retained the old tariff classification by PHCN as it reflects the various customer groupings within the market.
- These groupings represent various degree of usage, consumption level and prices paid categorized according to the KVA .
- In some instances these groupings and billing depends on the category of meter installed in the customers property.
- The tariff classes recognizes the existence of poor and indigent customers who are placed on life-line tariff segment
- This class of customers pay less than the average tariff to promote access and affordability principles
- Its main essence is to promote efficiency in pricing and striking a balance in the development of a sustainable market



Electricity on Demand

# Tariff Principles

- Simplicity- How simple is it?
- Fairness- is everyone's interest protected
- Uniformity- Has Uniform pricing promoted access?
- Objectivity- Could we have done it differently?
- Transparency- How clear are the rules leading to these classifications
- Affordability- Does it precede availability: chicken and egg hypothesis?
- Accessibility- Has there been a growth in customer as a result of this classification



# Objectives

- Ensuring that each customers pay cost of service delivery. The rate paid by each customer class represents cost imposed on the network
- Providing affordable rates to be paid by customers
- Ensuring full recovery of cost by utility without undue exploitation the customers
- Providing a consistent and transparent pricing path for operators and users
- Attainment of government and operators objective through social cohesion



# Rate Elements

- NESI operates a two-path tariff flat rate as follows:

## Fixed Charge

- To recover the cost of all fixed Assets from generation to distribution.
- Fixed but varies for each customer class
- This includes: meter maintenance, demand, minimum charges

## Energy Charge

- Based on consumption and usage by each customer class
- Varies as a result of availability and volume of usage
- Measured per kilowatt hour Kwh



# Rates Elements contd..

## Demand Charge

- levied on Maximum demand customers to recover all demand related cost. These costs may be related to distribution facility capacity costs, transmission capacity costs and system peak costs

## Minimum Charge

- Ensures that all direct customer costs associated with usage are recovered even in period of low consumption by the customer
- Varies according to customer class and usage.





# Elements...

Meter  
Maintenance  
Charge ??

- Used for the replacement and maintenance of meters installed in customer's residence



# Customer Classification

- Residential (Domestic)Customer- a consumer who uses his premises exclusively as a residence
- Commercial Customer- a consumer who uses his premises for any purpose other than exclusively as a residence or as a factory for manufacturing goods
- Industrial Customer-a consumer who uses his premises for manufacturing goods
- Special Customer- Customers whose facility are used for knowledge impartation like public schools, research institutions, worship places and agricultural farms and government establishment.

# 2010 Tariff Classification

	<b>TARIFF CODES</b>	<b>CUSTOMER'S DEMAND LEVEL</b>
1.0	<b>RESIDENTIAL</b>	
	R1	<5kVA
	R2	>5kVA<15kVA
	R3	>15kVA<45kVA
	R4	>55kVA<500kVA
	R5	>500 <2MVA
2.0	<b>COMMERCIAL</b>	
	C1	>5kVA<15kVA
	C2	>15kVA<45kVA
	C3	>55kVA<500kVA
	C4	>500kVA<2MVA
3.0	<b>INDUSTRIAL</b>	
	D1	>5kVA<15kVA
	D2	>15kVA<45kVA
	D3	>55kVA<500kVA
	D4	>500kVA<2MVA
	D5	>2MVA
4.0	<b>STREET LIGHT</b>	
	S1	1-Ph, 3-Ph
5.0	<b>SPECIAL TARIFF CLASS</b>	
	A1	>15Kva <45kVA
	A2	>55kVA <500kVA
	A3	>500kVA < 2MVA

# Tariff Summary

RESIDENTIAL	COMMERCIAL	INDUSTRIAL	SPECIAL	STREET LIGHTING
R1	C1	D1	A1	S1
R2	C2	D2	A2	
R3	C3	D3	A3	
R4	C4	D4	A4	
R5		D5		



# Post-paid PHCN Bill

1669  
Route:                      Seq.

1669  
Route:                      Seq.

**POWER HOLDING COMPANY OF NIGERIA PLC.**

Aug 2008

**PHCN**  
Power Holding Company Of Nigeria Plc

Account N<sup>o</sup> 04/13/Z4/194Z-01  
Name ,MR DAFIONODE  
505 MET QRTS KODESOH STR I  
85/81841  
Service Address KODESOH STR

17/09/2008  
0485000081841  
Meter N<sup>o</sup> 17  
ADC 5  
DIALS

**PHCN**  
Power Holding Company Of Nigeria Plc

Account N<sup>o</sup> 04/13/Z4/194Z-01  
Name ,MR DAFIONODE  
505 MET QRTS KODESOH STR I  
85/81841  
Service Address KODESOH STR  
0485000081841

Meter N<sup>o</sup>

Description	Tariff Code	Read Date	Present Reading	Previous Reading	Multiplier	Consumption	Current Charges
ENERGY	KwhRZ	19/08/2008	28678	28433	1.00	245	980.00
FIXED	FC RZ						30.00
METER MAINT	MMCRZ						100.00

Billing Periods: 01  
(Meter Maint. Charge)

LAST PAYMENT DATE 04/07/2008 AMOUNT 2,000.00

CONNECTION FEES: 1-PHASE: =N=1,000; 3-PHASE: =N=2,000

Send Bill To: AT ANY CASH OFFICE/DESIGN. BANK WITHIN IKEJA DISTRICT

Net Arrears	3,129.90
Current Charges	1,110.00
VAT	55.50
<b>PAY TOTAL DUE NOW</b>	<b>4,295.40</b>

Old A/C N<sup>o</sup> VAT CODE:LCV/25/23/06/01  
D ACCT 041353007901      KwhRZ- Rate:=N= 4.00

Due Date 17/09/2008  
Net Arrears 3,129.90  
Current Charges 1,110.00  
VAT 55.50  
Total Due 4,295.40  
Old A/C N<sup>o</sup>AT CODE:LCV/25/23/06/01  
041353007901

# PHCN Pre-paid Credit Voucher

<b>PHCN</b>		<b>PURCHASE CREDIT VOUCHER</b>	
ACCOUNT NO. :	01.0401.0011.0732	OLD ACCOUNT NO. :	04/14/26/
CUSTOMER NAME :	ATABO B E	METER S/N :	04/14/26/
ADDRESS :	7B SUNDAY ADIGUN	ENERGY(KWH) :	3,120.90
CARD NO. :	442946412104211C	FIXED CHARGE :	N 600.00
PURCHASE TIME/S :	7	TARIFF RATE :	N 6.00
ENERGY SUM :	N 18,725.39	VAT :	N 1,091.27
TARIFF CLASS :	R3	PREPAY CREDIT :	N -0.01
METER MAINTENANCE CHARGE :	N 2,500.00	PRE-LOAD CREDIT :	N 0.00
PREPAY METER CONNECTION FEE :	N 2,083.33	DEMAND SUM :	N 0.00
TOTAL ARREAR :	N 1,260.00	VAT OF EMERGENCY CREDIT :	N 0.00
ARREAR PAID :	N 0.00	EMERGENCY CREDIT SUM :	N 0.00
ARREAR BALANCE :	N 0.00	PREPAY SUM :	N 0.00
EMERGENCY CREDIT(KWH) :	0.00		
OPERATOR :	ABIODUN JOKOTOLA		
DATE :	30/03/09 16:05:59		
		<b>TOTAL</b>	<b>N 25,000.00</b>
NOTICE : SURCHARGE FOR TAMPERING IS 150,000.00			

# Challenges/Shortcomings

- The current customer classification is too large for ease of understanding
- About 60% of customer fall within the R2 band and this indirectly affects the revenue collection of PHCN
- The life-line (R1 class) band does not have a clear definition
- The use of meter maintenance charge in the rate element has come under severe criticism lately, hence need for review and reconsideration





# THANK YOU

**Contact us at:**

**Adamawa Plaza, Plot 1099 First Avenue,  
Off Shehu Shagari Way,  
Central Business District,  
Abuja**

**Website: [www.nercng.org](http://www.nercng.org)**

**E-mail: [info@nercng.org](mailto:info@nercng.org)**