# NOTICE OF APPROVED METHODOLOGY FOR THE DETERMINATION OF CONNECTION CHARGES BY DISTRIBUTION LICENSEES

## 1. INTRODUCTION

The Distribution License Terms and Conditions require the licensees to obtain the consent of Nigerian Electricity Regulatory Commission (NERC) before charging customers any fee for connection as well as use of electricity. The licensees are thus required to develop and submit for NERC's approval within the first 30 days of each calendar year, a methodology covering the development of a fair and equitable distribution use of system and connection charges, and a schedule of proposed charges and charges for various standard connection designs. The Commission shall confirm such methodology or suggest modifications as it deems fit.

None of the licensed utilities has to date complied with the provisions of their license terms and conditions with regards to obtaining the NERC's approval on the amount of connection charges. However, customers are being charged varying connection charges to defray the costs of dropping service lines, meters and associated components to their residences/premises. This is in contrast to Condition 41 (6) (Metering) which clearly states that Licensees shall be responsible for installing meters at their own expense and shall be the owner of all installed metering equipment. If the meter becomes damaged for any reason outside the control of the customer, the Licensees shall repair the damaged meter or change it as quickly as possible, at their own expense.

The above practices by the distribution licensees have no doubt caused much disaffection amongst electricity consumers and the Commission is desirous of addressing this issue for the good of the emerging electricity market. Consequently, the costs of meters and associated components have been incorporated in the determination of the end-user tariffs. The implication of the above is that both existing and new customers shall be provided with meters at no extra cost in consonance with Condition 41 (6) of the Distribution License terms and conditions. However, the cost of new connection to public supply shall continue to be applied as may be approved by the Commission from time to time.

#### 2. COMPONENTS OF CONNECTION CHARGES

Electricity connection to customer premises could be either through overhead or underground networks. The cost of new customer connections comprise mainly of connection to public supply (service line drop), the actual meter and associated accessories as detailed below:

- *a. Meter and Meter Accessories* This component of the connection cost is made up of meter, meter box, meter board, flexible pipe and seal.
- b. Connection to Public Supply Such connections comprise of aluminum PVC wire, a miniature circuit breaker (MCB), cut-out fuse, neutral connector, screw insulators and a board.

It is to be noted that the size and quantity of the components will depend largely on the supply being served, single/three phase at 415v with maximum of 70kv or maximum demand (MD) at low/high voltages with total load exceeding 70kv. The materials required to effect such connections (excluding meters and accessories) within a span of 50 meters from the nearest service line are tabulated in tables 1-7 below:

S/N	MATERIALS	UNIT	QUANTITY
1.	16mm <sup>2</sup> Aluminum PVC wire	Meter	100
2.	30 Amp Miniature Circuit Breaker (MCB)	No.	1
3.	60 Amp Cut-out Fuse	No.	1
4.	Neutral Connector	No.	1
5.	Screw Insulator	No.	2
6.	Board	No.	1

#### TABLE 1: OVERHEAD NETWORKS - SINGLE PHASE SUPPLY

#### **TABLE 2: OVERHEAD NETWORKS - THREE PHASE SUPPLY**

S/N	MATERIALS	UNIT	QUANTITY
1.	25mm <sup>2</sup> Aluminum PVC wire	Meter	200
2.	60 Amp Miniature Circuit Breaker (MCB)	No.	3
3.	60 Amp Cut-out Fuse	No.	3
4.	Neutral Connector	No.	1
5.	Screw Insulator	No.	4
6.	Board	No.	1

#### **TABLE 3: UNDERGROUND NETWORKS - SINGLE PHASE SUPPLY**

S/N	MATERIALS	UNIT	QUANTITY
1.	4 ×16mm <sup>2</sup> Copper Armoured Cable (SWA)	Meter	50
2.	16mm <sup>2</sup> Cable Socket	No.	8
3.	60 Amp Cut-out Fuse	No.	1
4.	30 Amp Miniature Circuit Breaker (MCB)	No.	1
5.	Neutral Connector	No.	1
6.	Board	No.	1

#### **TABLE 4: UNDERGROUND NETWORKS – THREE PHASE SUPPLY**

S/N	MATERIALS	UNIT	QUANTITY
1.	4 ×25mm <sup>2</sup> Copper Armoured Cable (SWA)	Meter	50
2.	25mm <sup>2</sup> Cable Socket	No.	8
3.	60 Amp Cut-out Fuse	No.	1
4.	60 Amp Miniature Circuit Breaker (MCB)	No.	1
5.	Neutral Connector	No.	1
6.	Board	No.	1

However, if a customer is located more than 50 meters away from the service line available, such a customer shall bear the cost of extending the low voltage line from the nearest available point to the service feeder pillar where the customer will thus be connected. The material to be required can be summarised as follow:

S/N	MATERIALS	UNIT	QUANTITY
1.	8.6m Reinforced Concrete Pole	No.	1
2.	150mm <sup>2</sup> Aluminum Conductor	Meter	220
3.	Stay Rod	No.	2
4.	Stay Wire	Meter	30
5.	Stay Block	No.	2
6.	Stay Insulator	No.	2
7.	Shackle Insulator	No.	2
8	D-Iron	No.	8
9.	Stud	No.	8
10	5/8 By 9 Bolt/Nut	No.	4
11	5/8 By 9 Bolt/Nut	No.	4
12.	Extension Strap	No.	8

TABLE 5: EXTRA SERVICE MATERIALS (1 SPAN OF 50 METERS)

#### TABLE 6: HIGH TENSION SUPPLY – 11KV LINK-UP (1 SPAN OF 70 METERS)

S/N	MATERIALS	UNIT	QUANTITY
1.	10.6M Reinforced Concrete Pole	No.	2
2.	6ft Channel Iron	No.	2
3.	150mm <sup>2</sup> Aluminum Conductor	Meter	180
4.	Disc Insulator	No.	6
5.	6-Bolt Snail Clamp	No.	6
6.	Adaptor Clevis Ball	No.	6
7.	Adaptor Clevis Socket	No.	6
8	J-Hook	No.	6
9.	Termination Strap	No.	6
10	Stay Wire	Meter	15
11	Stay Block	No.	1
12.	Stay Rod	No.	1
13.	Stay Insulator	No.	1
14.	5/8 x 12 Bolt/Nut	No.	4
15.	5/8 x 9 Bolt/Nut	No.	4
16.	5/8 x 4 Bolt/Nut	No.	4
17.	5/8 x 2 Bolt/Nut	No.	6

S/N	MATERIALS	UNIT	QUANTITY
1.	10.6M Reinforced Concrete Pole	No.	3
2.	9ft Channel Iron	No.	4
3.	33KV Ganged Isolator Switch Complete	No.	1
4.	Disc Insulator	No.	18
5.	6-Bolt Snail Clamp	No.	6
6.	Adaptor Socket Tongue	No.	6
7.	Adaptor Socket Clevis	No.	6
8	J-Hook	No.	8
9.	Termination Strap	No.	6
10	5/8 x 12 Bolt/Nut	No.	6
11	5/8 x 11 Bolt/Nut	No.	4
12.	5/8 x 9 Bolt/Nut	No.	4
13.	5/8 x 4 Bolt/Nut	No.	4
14.	5/8 x 2 Bolt/Nut	No.	6
15.	70mm <sup>2</sup> Bare Copper Wire	Meter	45
16.	150mm <sup>2</sup> Aluminum Wire	Meter	260
17.	Stay Wire	Meter	30
18.	Stay Rod	No.	2
19.	Stay Insulator	No.	2
20.	Stay Block	No.	2

TABLE 7: HIGH TENSION SUPPLY – 33KV LINK-UP (1 SPAN OF 70 METERS)

# 3. CONNECTION PROCEDURES FOR NEW ELECTRICITY SERVICES

In line with the Commission's Regulation on Connection and Disconnection Procedures for Electricity Services, the following procedure shall apply whenever a customer desires to obtain supply from a distribution company to his residence/premises;

- a. submit an application for electricity supply in a format required by the distribution company and approved by the Commission;
- b. provide a declaration of supply requirements completed by an appropriate authority in a format required by the distribution company and approved by the commission;
- c. provide the distribution company with acceptable identification and all information necessary to enable it to arrange to provide supply to the address; and
- d. pay any capital contribution, connection charge as may be requested by the distribution company and approved by the Commission.

## 4. APPROVED CONNECTION CHARGES

In view of the fact that none of the distribution licensees has to date submitted a methodology for connection charges requesting for NERC's approval, it therefore becomes imperative that standardised connection charges are developed and approved for implementation. This is with a

view to ensuring that customers are not exploited via excessive charges by distribution licensees.

Henceforth all payments relating to testing, inspection/survey and commissioning hitherto charged MD customers are hereby abolished. This decision is premised on the fact that the testing equipment cost has been factored in the determination of the return on capital on the regulated assets base, while labour related costs of inspection and commissioning has been accounted for as part of the salaries under approved operating expenses (OPEX).

In accordance with international best practices, the Commission has thereby directed that with effect from 1<sup>st</sup> June 2012, each new customer requiring connection to their residences/premises shall be liable for the full costs of service line dropping itemised in Tables 1-7 as may be appropriate. However, distribution licensees shall bear the full costs of the meter and meter accessories as (as stated in 2a above) required under Condition 41 of the Distribution License Terms and Conditions.

The distribution licensees are mandated to immediately undertake a comprehensive market survey of the prices of connection materials listed in Table 1- 7 above from a minimum of three (3) independent sources in their areas of operations derive therefrom a fair cost of connecting each customer to supply. Distribution licensees are to carry out the market survey from known commercial suppliers, determine connection charges based on the actual costs, with no profit margin applied thereto and propose such charges for each of the seven types of supply stated above. Each licensee is to revert to the Commission within two (2) weeks of receiving this notice. The Commission, upon approving the appropriate charges will authorise the Distribution Licensees to publish such approved charges within the territories falling within their areas of operations.

This approved methodology shall continue in force until a full consultation on a detailed connection methodology is undertaken by the Commission.