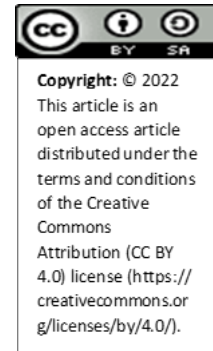


## The Legal Framework for Management of Electricity Distribution in Nigeria: Challenges and Prospect

Rufus Adeoluwa Olodude, Esq.  
LL.B, LL.M, P.GDE, ACI Arb(UK),  
PhD Candidate,  
University of Abuja.



### Abstract

*The electricity sector in Nigeria has been riddled with enormous challenges over the years which has led to its privatization, yet it seem that little has yet been achieved. It is important to note that electricity distribution is the heart of transmission, as power cannot get to the consumer without distribution even if power has been generated. Therefore, electricity distribution companies have been identified as a vital link between the supplier of electricity and customers that buy and use electricity. It has been said that distribution involves a process which constructs and maintains equipment that transforms the power supply to the type that meets the customer's needs, meters the amount the customer uses, provides the appropriate billing and collects the payments. In the present-day Nigeria, there are 11 electricity distribution companies. Hence, this work seeks to examine the laws regulating the distribution of power supply in Nigeria. Furthermore, this work further examines the challenges and prospect for management of electricity distribution in Nigeria. For the purposes of this research, statutes, legislative bill and petroleum regulations were utilized which are primary sources while secondary sources such as online materials and books were utilized. The paper finds out that the regulatory framework for management of distribution of electricity in Nigeria have got some fantastic provisions, which if harnessed can change the game for the electricity distribution but noted that the level of compliance is nothing to write home about. This paper concluded by recommending that the Discos should be encouraged to strictly comply with the existing beautiful regulations in place while the areas of conflicts should be jettisoned. It was also recommended that there should be an avenue for competition in distribution of electricity such that mini-grid investors should be encouraged to invest in the electricity sector to provide more viable option for constant electricity supply in Nigeria.*

**Keywords:** Electric Power, Reform, Distribution Companies, Power Sector

## 1. Introduction

In the year 2005, the Electric Power Reform Act was enacted to give legal backing to the reform activities <sup>1</sup>in the power sector. The Nigerian Electricity Regulatory Commission (NERC) was also established as an independent regulatory body for the electricity industry in Nigeria. In addition, the Power Holding Company of Nigeria (PHCN) was formed as a transitional corporation that comprises of the 18 successor companies (6 generation companies, 11 distribution companies and 1 transmission company) created from NEPA.<sup>2</sup>

In 2010, the Nigerian Bulk Electricity Trading Plc (NBET) was established as a credible off-taker of electric power from generation companies. By November 2013, the privatization of all generation and 10 distribution companies was completed with the Federal Government retaining the ownership of the transmission company. The privatization of the 11th distribution company was later completed in November 2014.<sup>3</sup> This work seeks to examine the Legal Framework of Electricity Distribution in Nigeria.

## 2. Electricity Distribution

Electricity distribution is the final stage in the delivery of electric power and the main focus of this study. At this stage the electric power distribution carries electricity from the transmission system to individual consumers.<sup>4</sup> Electricity distribution companies have been identified as a vital link between the supplier of electricity and customers that buy and use electricity. It involves a process which constructs and maintains equipment that transforms the power supply to the type that meets the customer's needs, meters the amount the customer uses, provides the appropriate billing and collects the payments. In different countries,<sup>5</sup> electricity distribution is either managed by the central government, private organizations or the local government<sup>6</sup>.

## 3. Types of Management System

Distribution Management System (DMS) which is a collection of applications designed to monitor and control the entire distribution network efficiently and reliably.<sup>7</sup> It acts as a decision support system that makes decisions that assist with the control room and field operations.

---

<sup>1</sup> Such as restructuring and eventual privatization of NEPA

<sup>2</sup> <https://nerc.gov.ng/index.php/home/nesi/401-history> accessed August 8, 2021

<sup>3</sup> *ibid*

<sup>4</sup> Brown, R. E. *Electric Power Distribution Reliability*, 2nd ed., CRC Press. 2008

<sup>5</sup> In some countries in Africa, up to 500 electricity distributors may exist, i.e the number of electricity distributors in south Africa were 500 before it was reduced to 300 recently

<sup>6</sup> *Ibid @ footnote 7*

<sup>7</sup> Huang, Y., Werner, S., Huang, J, Kashyap, N., Gupta, V. (2012). State Estimation in Electric Power Grids: Meeting New Challenges Presented by the Requirements of the Future Grid," *Signal Processing Magazine, IEEE* , Volume 29. Number 5.

Outage Management System (OMS) is a combination of other systems that give feedback about customer satisfaction. These include a Customer Information Systems (CIS), Geographical Information System (GIS – which provides information about customer geographical location) and Interactive Voice Response System (IVRS).<sup>8</sup>

#### **4. Distribution Companies in Nigeria**

The distribution companies in Nigeria are as follows

- i) Abuja Electricity Distribution Company (AEDC);
- (ii) Benin Electricity Distribution Company (BEDC);
- (iii) Eko Electricity Distribution Company (EEDC);
- (iv) Enugu Electricity Distribution Company (EEDC);
- (v) Ibadan Electricity Distribution Company (IBEDC);
- (vi) Ikeja Electricity Distribution Company (IKEDC);
- (vii) Jos Electricity Distribution Company (JEDC);
- (viii) Kaduna Electricity Distribution Company (KEDC);
- (ix) Kano Electricity Distribution Company (KEDC);
- (x) Port Harcourt Electricity Distribution Company (PHEDC) and
- (xi) Yola Electricity Distribution Company (YEDC)

#### **MYTO**

MYTO is the Multi-Year Tariff Order for the Determination of the Cost of Electricity Generation for the period. The MYTO is typically reviewed and minor changes are made biannually, while major changes are made every five years.<sup>9</sup>

#### **5. Nigeria Electricity and Legal Framework**

Checklist of Laws regulating the Distribution of Electricity in Nigeria:

1. The 1999 Constitution Federal Republic of Nigeria
2. The Electric Power Sector Reform Act 2005 CAP E7, Laws of the Federation of Nigeria 2004 (EPSRA)
3. Roadmap for Power Sector Reform 2010
4. Power RoadMap 2019

---

<sup>8</sup> ibid

<sup>9</sup> Ibid

5. Meter Reading, Billing, Cash Collections and Credit Management for Electricity Supplies Regulations 2007
6. NERC's Connection and Disconnection Procedure for Electricity Services 2007
7. NERC Application for Licensee (Generation, Transmission, System Operation, Distribution and Trading) Regulation 2010
8. Nigerian Electricity Health and Safety Standards Manual 2008
9. Customer Service Standards of Performance for Distribution Companies 2007
10. NERC Regulations for Independent Electricity Distribution Networks (IEDN Regulations) 2012
11. Regulations for the Investment in Electricity Networks 2015
12. The Nigerian Electricity Health and Safety Standards Manual
13. NERC (Embedded Generation) Regulation 2012
14. NERC Regulation for Mini-Grid 2016
15. NERC Eligible Customer Regulation 2017
16. The Nigerian Electricity Management Service Agency Act (NEMSA Act)
17. License and Operating Fees Regulation 2010

## **6. The Nigerian 1999 Constitution**

The Second Schedule, Part II, Section 13 provides that the National Assembly may make laws for the federation or any part thereof with respect to distribution of electricity for any area partly within and partly outside the federation; and the regulation of the right of any person or authority to use, work, or operate any plant, apparatus, equipment or work designed for the supply or use of electrical energy". Furthermore, Section 14 provides that "a house of assembly may make laws for the state with respect to electricity and the establishment in that state of electric power stations distribution of electricity to areas not covered by the national grid system within that state.

## **7. The Electric Power Sector Reform Act 2005 CAP E7, Laws of the Federation of Nigeria 2004 (EPSRA)**

The Electric Power Sector Reform Act 2005 is the legal framework that governs the Nigerian electricity industry, which includes electricity generation, transmission, distribution, supply, and trading. The Act is established to provide for the formation of companies to take over the functions, assets, liabilities, and staff of the National Electric Power Authority, to develop competitive electricity markets, to establish the Nigerian Electricity Regulatory Commission (NERC) as an independent regulatory body charged with the responsibility of licensing and regulating persons engaged in the generation, transmission, system operation, distribution and trading of electricity in Nigeria.<sup>10</sup>

---

<sup>10</sup> Olusola Jegede and Winifred Idiaru, Nigeria: Overview of Electricity Law in Nigeria, <https://www.mondaq.com/nigeria/oil-gas-electricity/1075234/overview-of-electricity-law-in-nigeria> accessed on August 8, 2021

Bearing in mind that this paper bothers on Management of Electricity Distribution, Section 8 of the ESPRA provides that:

*The National Council on Privatisation shall, not later than eight months after the formation of the- initial holding company under section 1 of this Act, take such steps as are necessary under the Companies and Allied Matters Act to incorporate such number of additional companies, limited by shares, as the National Council on Privatisation may deem appropriate, which shall be the successor companies for assuming the assets and liabilities of the initial holding company including, but not limited to, companies with functions relating to the generation, transmission, trading distribution and bulk supply and resale of electricity.*

This implies that the distribution companies are to be registered under the Companies and Allied Matters Act and particularly as companies limited by shares as determined by National Council of Privatization.

Section 26(1)(g) of the Act allowed companies with distribution licensee to purchase electrical power from companies with generation licenses and trading licenses in accordance with the terms under their respective distribution license. This is to the effect that the distribution licenses are required to purchase electrical power from the successor generation companies before power can be sold to eligible customers.

Section 62 of the Act provides that no person shall construct, own, or operate an undertaking without the issuance of a license. However, Sub section 2 of that section provides that a person may construct, an undertaking for distribution for electricity with a capacity not exceeding 100 kilowatts (KW) in aggregate at a site, without a license.

Section 67(1) of the ESPR Act provides that a distribution licensee is authorized to construct, operate and maintain a distribution system and facilities, including, but not limited to, the following activities as may be specified in the licence:

- (a) the connection of customers for the purpose of receiving a supply of electricity;
  - (b) the installation, maintenance and reading of meters, billing and collection; and
  - (c) such other distribution service as may be prescribed for the purposes of this section.
- (2) A distribution licensee may also have the obligation to provide electricity to its distribution customers, pursuant to the terms of a trading licence issued by the Commission to the distribution licensee.

(3) A distribution licensee that has a trading licence issued under subsection (2) of this section may purchase power for resale from another trading licensee and may, with the prior approval of the Commission, purchase power from other sources except for the rights and obligations of the trading licence described in section 25(a) novated to a distribution licensee under section 26, all contracts for bulk purchase of power by a distribution licensee shall be awarded according to an open, transparent, and competitive manner, pursuant to a procedure established by the Commission, unless the circumstances require otherwise and the Commission allows or requires an alternative method.

Section 70 further provides that:

*An application for a license shall be made to the Commissioner in the form and manner prescribed and to be accompanied by the prescribed fee and other information or document as may be required by the Commission.*

It further stated that within thirty (30) days after applying for a license, the applicant shall at his own expense cause a notice of the application to be published in the newspaper circulating in the area where he intends to operate as a Licensee and in a separate national newspaper, stating the period within which objection or representation in connection with the application may be made to the Commission, and the Commission shall not issue any license until all objections or representations received has been considered and determined.<sup>11</sup> It is important to note that, the Commission will only issue license to anybody who desires it after complying with requisite requirements.<sup>12</sup>

It is surprising to note that the Act still avail the private distribution companies the opportunity to benefit from compulsory acquisition when it requires land with respect to its obligations, despite being a private company. The President on the recommendation of the commission can mandate the Governor to revoke existing rights of Occupancy on the fact that it is to be used for public use.<sup>13</sup>

## **8.0 Roadmap for Power Sector Reform 2010**

This document is a vital complement to the Electric Power Sector Reform Act (EPSRA). It comprehensively thrashes out and proffers detailed short, medium and long term solutions to specific challenges faced in the privatization and transformation process mandated by the EPSRA. Its aim is to accelerate and support the reforms specified in the Act. Putting a numerical aim to this reform, the Roadmap envisions a 40,000 MW power output by 2020 - an ambitious 10 fold output increase in 10 years (from 2010 to 2020). By the Roadmap, the Nigerian Bulk Electricity Trader (NBET), a major player in today's market was established to serve as a short term credit enhancer for the as yet immature and credit-unworthy distribution

---

<sup>11</sup> Olusola Jegede and Winifred Idiaru, Nigeria: Overview of Electricity Law in Nigeria

<sup>12</sup> Section 70

<sup>13</sup> Section 77

companies. NBET will become unnecessary when distribution companies become commercially viable.<sup>14</sup>

## **9.0 Electricity Power Road Map 2019**

The Federal Government recently signed an agreement with Siemens that unveiled the roadmap geared towards resolving existing challenges in the power sector and expanding capacity for future power needs in Nigeria. The first phase of the program is poised towards implementing projects that would greatly improve the power supply in Nigeria within a short period of time. Amongst the objectives are to deliver an additional 2GW to the grid, to significantly reduce ATC & C losses, and to achieve improved grid stability and reliability. The second phase is targeted towards bringing the system's operational capacity to about 11G, while the third phase will involve increasing the system's capacity to 25GW within the medium to long term planning period, with appropriate upgrades and expansions in generation, transmission, and distribution.

## **10. Customer Service Standards of Performance for Distribution Companies 2007**

The guideline provides that whenever a Distribution Company is informed by a Customer during working hours that electricity supply to his premises has gone off, an authorized official from the Distribution Company is expected to visit the Customer's premises within 24 hours of being notified by the Customer to determine the cause of the problem, and where the cause of the outage is a problem with the Distribution Company's equipment, and provides that depending on the nature of the complaints, the distribution company is expected to rectify it between 24 to 48 hours.<sup>15</sup> However, an exception to the above is when the eligible customer fails to notify the Distribution Company. It further provides that whenever a Distribution Company is to discontinue the supply to a Customer's premises in order to undertake planned maintenance to its equipment, the Distribution Company is mandated to give a notice of three working days of the planned interruption.<sup>16</sup> This guideline also provides that every Distribution Company shall obtain, through its authorized representatives, an actual reading of all meters in all supply addresses within its areas of supply every month but not later than once in every three months and further state that this will not be applicable in unmetered supply cases.<sup>17</sup>

## **11. NERC Regulations for Independent Electricity Distribution Networks (IEDN Regulations) 2012**

The objective of this Regulation is to provide standard rules for the issuance of distribution licenses to qualified operators and licensees to engage in electricity

---

<sup>14</sup> Electricity Roadmap 2010

<sup>15</sup> Section 1

<sup>16</sup> Section 4

<sup>17</sup> Section 10

distribution, independent of distribution system operated by the Distribution Company of Nigeria.<sup>18</sup>

### **11. Meter Reading, Billing, Cash Collections and Credit Management for Electricity Supplies Regulations 2007**

The Regulation makes wonderful provisions, which if it is harnessed can improve the electricity sector. It mandates the distribution company to leave a notice at a customer's premises if they are unable to obtain their meter reading. It further state that whenever a distribution company makes a meter reading, it should ensure that the estimate accurately reflects the Customer's expected usage for the period and should not under no circumstance artificially inflate it.<sup>19 20</sup>

### **12. NERC's Connection and Disconnection Procedure for Electricity Services 2007**

This Regulation provides for procedure for application for supply of electricity to an apartment. It provides that in instances of supply of electricity to an existing supply address, the following procedure are required:

- (a) An application in the Customer's name in a format required by the Distribution Company and approved by the Commission ;
- (b) The Customer must accept the terms and conditions of the supply of the Distribution Company, approved by the Commission ;
- (c) Payment of connection charge and or security deposit required by the Distribution Company and approved by the Commission ;
- (d) Provision of acceptable identification and all information necessary to enable the Distribution Company to arrange to provide electricity supply to the address.

The Regulation further provides that the Distribution Company is mandated to give the customer the terms and condition of supply and after which the Disco is expected to connect the customer's supply address as soon as practicable but not later than 48 hours.<sup>21</sup> The Disco is also expected to address Electricity Bills to the supplied address.

In cases of supplying a customer electricity to premises where no connection to the distribution system is, the regulation provides for the following procedure:<sup>22</sup>

1. Application for electricity supply in a format required by the Distribution Company and approved by the Commission ;

---

<sup>18</sup> Olusola Jegede and Winifred Idiaru, Nigeria: Overview of Electricity Law in Nigeria

<sup>19</sup> Section 1(4)

<sup>20</sup> Section 2(7)

<sup>21</sup> Regulation 2 a,b,c

<sup>22</sup> Regulation 3



2. A declaration of supply requirements completed by an appropriate authority in a format required by the Distribution Company and approved by the Commission ;
3. Provision of acceptable identification and all information necessary to enable it to arrange to provide supply to the address
4. Payment of capital contribution, connection charge and security deposit requested by the Distribution Company and approved by the Commission.

The Regulation provides that a distribution Company is expected to disconnect supply to a Customer's residence, when the said Customer has not paid the amount due by the relevant payment date. It is to be noted that payment date has been interpreted to mean at least 10 working days from the date of delivery of the bill to the supply address or a delivery address provided by the Customer.<sup>23</sup>

### **13. Regulations for the Investment in Electricity Networks 2015**

The Regulation makes provision for the procedure for investing in electricity networks in Nigeria. The objective of the Regulation is to create strong incentives to encourage the transmission company of Nigeria (TCN) and the distribution companies (DISCOs) to make a sustainable investment in capacity expansion, to ensure the delivery of capacity at levels already projected in the revenue requirement for the sector. The Regulation also provides that all distribution customers must be metered as required by the Commission's service standards. It further stated that the Distribution Metering Code shall apply to distribution networks. Furthermore, it stated that the appropriately located statistical metering shall be planned and installed for energy accounting in the distribution network.<sup>24</sup>

### **14. Challenges Facing Nigeria's Power Sector**

- i. Technical Issues: Vandalism of PHCN plants and equipment obstruct the flow and provision of electricity. This could be in form of theft or terrorism attack by removing transmission lines or parts of the distribution transformer.
- ii. Environmental Issues: It is not ideal that a new thermal power plant be erected in an area that has a cement industry or chemical industry as this will increase the level of carbon monoxide (CO) emissions.
- iii. Decentralization issues: A potential challenge in the sector is that, by virtue of paragraph 14, State Governments in Nigeria are at liberty to engage in licensing and regulation of electricity subject as provided by the Constitution. It is apparent to note that from the above section that the Nigerian Constitution provides for decentralized electricity governance. It is important to note that while the Constitution provides for decentralized regulatory framework, the EPSR Act provides for a centralized regime,

---

<sup>23</sup> Regulation 5

<sup>24</sup> Section 9 (d)

which is outside the contemplation of the Constitution, thus making it null and void to the extent of its inconsistency.<sup>25</sup> The Act also established an agency, to be known as the Rural Electrification Agency (REA).<sup>26</sup> The REA administers the Rural Electrification Fund (REF), a designated fund to provide, promote and support rural electrification programmes which ordinarily comes within the ambit of off-grid electricity structure for State regulation.

- iv. Rural Electricity
- v. Captive power generation: Power to regulate captive electricity generation should ordinarily vest in the State Governments. Therefore, the NERC Regulations for the Granting of Permits for Captive Power Generation, 2008<sup>27</sup> is, ipso facto, unconstitutional. Under this regulation, the NERC grants captive electricity permits<sup>28</sup> to an individual, a company, partnership or any association of individuals whether incorporated or not.<sup>29</sup>
- vi. Inability of the Distribution Companies to off-set invoice due to Nigerian Bulk Electricity Trading BET and Meter Operators.
- vii. Revocation of land under Electricity Sector Reform Act: This is abnormally bearing in mind that private individual owns the distribution companies, they should be made to pay for acquisition of land to be used by them.

## 15. Prospects

The Power Sector has great prospects of improvement in the future, financial as well as fiscal aspects of the industry.

- a. Better management and improved performance is that which is required. It is important that DISCOS should be transparent and accountable in their financial dealing.
- b. Investment in mini-grid is an untapped area since most localities are not connected to the national grid. Mini-grid is not only viable but cost effective.

---

<sup>25</sup> Ibid, section 1 (1) and (3) of the CFRN, 1999 (as amended).

<sup>26</sup> S. 88 (1) of the EPSR Act, See also section 31 of the Electric Power Sector Reform (EPSR) Act 2005, Cap E7, Laws of the Federation of Nigeria (LFN), 2004.

<sup>27</sup> The Nigerian Electricity Regulatory Commission (NERC) Regulations for the Granting of Permits for Captive Power Generation, 2008 is made pursuant to Section 96 (1) of the Electric Power sector Reform Act, 2005 which gives the Commission power to make regulations for the granting of permits for captive power generation.

<sup>28</sup> It has been stated that “Captive Power Generation” means generation of electricity in excess of one (1) MW for the purpose of consumption by the generator, and which is consumed by the generator itself, and not sold to a third-party”.<sup>28</sup>

<sup>29</sup> See section 2 of the Regulations. The section defines ‘person’ to include an individual, a company, partnership or any association of individuals whether incorporated or not

- c. Elites should cease to interfere in the privatization process.
- d. The sincerity on the part of Government to improve the network and the supply of excess meters for customers amongst others will breed a new dawn.
- e. Subsidizing the selling rates of energy is sacrosanct for the time being.

## **16. The Future of Electricity Industry in Nigeria.**

In line with the country's energy policy and with the recently adopted Gas Master Plan, Gas is expected to play a leading role in the future of electricity generation in Nigeria. This is because Gas is very closely linked to electricity and it offers a primary fuel alternative to electricity. Nigeria has Natural Gas resources that are estimated to last over a century. In line with its energy policy the government of Nigeria should encourage alternative sources of energy for electricity generation. This will maximize the resources available and provide least cost solution to access expansion. Nigeria has abundant resources for actualizing this. It has been noted that power generation will increase capacity of electricity supply by five times its present supply.

## **17. Conclusion**

It has been noted that the Constitution of the Federal Republic of Nigeria by its Second Schedule Section 13 and 14 provided for Distribution of Electricity in Nigeria. It was also noted that the power to legislate on distribution of electricity is expressly provided for under the concurrent list, it is of note that the National Assembly has taken over the state legislative function to make laws with respect to distribution of electricity. We submit that this is a defect that should be addressed. More also, the 11 Distribution companies presently operating in Nigeria are quite small in number compared to South Africa's regulatory framework which engages 300 discos. It is in our humble opinion to state generally that the regulatory framework for distribution is fantastic but implementation and compliance is nothing to write home about. Yet, even though the Electricity Power Sector Reform Act 2005 has birthed quite a number of innovations, yet a lot still needs to be done to tackle the existing challenges as highlighted above. With the development of Gas Master Plan, it was noted that Natural Gas Resources should be viable option and should be explored for increased in electricity generation since it has been envisaged to last for over a century. It is important to note that off-grid renewable energy is a very attractive option for investors and can provide viable option for electricity in country like Nigeria. This approach will definitely help solve the lingering problems in the power sector in Nigeria.

## **18. Recommendations**

- i. It is recommended that more distribution electricity companies should be licensed to create meaningful competitions.
- ii. It is recommended that strict compliance with the existing framework should be encouraged.

- iii. It is recommended that since distribution of electricity is under the concurrent list, the state legislature should be given unfettered powers to make laws with respect to management and distribution of electricity.
- iv. It is recommended that Gas generation as a means of electricity generation should be explored since it has been noted that Natural Gas Resources can last Nigeria over a century.
- v. Based on the fact that the power sector has been privatized, thus the issue of compulsory acquisition of land should be jettisoned. Thus, Discos should be encouraged to acquire lands from their profits.
- vi. It is recommended that more security measures should be put in place to curb the menace of vandals.