

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

The perceived challenges in the electricity sector hindering the provision of constant electricity supply in Nigeria have necessitated the need to investigate the legal obligations that were necessary to ensure the supply of electricity in Nigeria. This thesis examines the extent to which regulatory institutions have performed their legal roles toward electricity supply in Nigeria. Notably, with the reform in the electricity sector in Nigeria, the key players in the electricity generation, distribution, transmission segment and other stakeholders should be given the legal and contractual obligations to make available the supply of electricity.

The legal obligations to supply electricity are in two forms namely: The statutory obligation to supply electricity and the contractual obligation to supply electricity. The former refers to the provisions of law as enshrined in the 1999 Constitution of the Federal Republic of Nigeria (as amended) while the latter are the agreements that have been codified in the Power Purchase Agreements for the purpose of ensuring the constant supply of electricity.

This chapter will attempt to give a background to the questions that led to this study, the statement of problem, the research questions that this thesis seek to investigate, the aims and objectives, research methodology, justification of the study, scope of the study and the structure that will guide the direction of the thesis.

1.2 BACKGROUND OF THE STUDY

Legal obligations in the licensing agreements are necessary for ensuring the stability of electricity for consumers. In essence, it is expected that the current legal framework should contain provisions that support security of supply of electricity for consumers. Security of supply in this regard is defined “as those measures enacted to guarantee access to some fuels, for the constant generation of electricity...”¹ The above position also reflect the step that has been taken in the Nigerian oil and gas

¹ Leigh Hancher and Sally Janssen, 2004 *Shared Competences and Multifaceted Concepts-European Legal Frameworks for Security of Supply* in ‘B Barton, C Redgewell, A Ronne and D N Zillman (eds), *Energy Security: Managing Risks in A Dynamic Legal and Regulatory Environment* (OUP)

industry with the introduction of the Domestic Gas Supply Obligation (DGSO) which is in line with the Nigerian Gas Master Plan. The DGSO has been incorporated into the proposed Petroleum Industry Bill. The measure is intended to serve as a legal obligation to ensure availability of gas for domestic use in Nigeria which will further provide support for generation of electricity.

It is important to note that: “most legal systems decipher, produce, diverge and execute obligations”.² This observation has merits, given the fact that observance and enforcement of compliance to obligations are central to the social role of law and explaining them is important to an appreciation of law's authority.³ In essence, legal obligations can be viewed as those lawful conditions with which law's subjects are set to align.⁴ In Nigeria, the legal mandate to make laws for the electricity industry is provided under Part II, Item 13 and 14 of the 1999 Constitution of the Federal Republic of Nigeria (as amended) which stipulates “that both the National Assembly and House of Assembly may make laws for the Federation or any part thereof and the State respectively.”⁵ Furthermore, the Constitution emphasizes the fact that “distribution” means the supply of electricity from a sub-station to the ultimate consumer while “transmission” means the supply of electricity from a power station to sub-station or from one sub-station to another sub-station.⁶ The above literally suggest that there is in existence a mandate to make available electricity to consumers in the event of generation. Notably, the constitutional power to make laws has always been exercised by the Federal Government of Nigeria through the National Assembly, which has led to the emergence of the Electric Power Sector Reforms Act 2005. This law is responsible for the regulation and development of the electricity sector in Nigeria. Thus, the legal obligations to ensure stable supply of electricity are to be construed from the substantive laws which is the Electric Power Sector Reforms Act 2005 and relationships that have been created on the one hand by the generation companies through the signing of Power Purchase Agreements (PPAs) with the

² Stanford Encyclopaedia of Philosophy <https://plato.stanford.edu/entries/legal-obligation/> accessed on 23rd October 2017

³ Ibid

⁴ Ibid

⁵ Part II, Item 13 and 14 Concurrent Legislative List of the Constitution of the Federal Republic of Nigeria 1999 (as amended)

⁶ Part II, Item 15 Concurrent Legislative List of the Constitution of the Federal Republic of Nigeria 1999 (as amended)

Nigerian Bulk Electricity Trader, and on the other hand, by the distribution companies through the vesting contracts signed with the Nigerian Bulk Electricity Trader.

Notably, an illustration can be drawn from South Africa's National Energy Act 2008. South Africa has a robust energy regime that seeks to ensure stability and consistency in the sector. This will be discussed and analysed in the subsequent chapters.

There is no doubt that the lack of stable power supply has crippled economic growth and disrupted emerging business enterprises that would have enhanced job creation.

Electricity is a necessary and vital resource. It is expected that every individual should have access to electricity and be capable of affording it. Consistently, over the past decades there have been several attempts to resolve the problems of unstable power supply, notably by injecting huge funds in the electricity sector. This has not yielded a positive result.

There have also been steps to improve the legal framework to address the various challenges in the electricity sector which have culminated in the current legal regime under the Electric Power Sector Reforms Act⁷. This did not however address the issue of security of supply of electricity.

This research is focused on investigating the prevalent problems through the instrumentality of law, using multidisciplinary approach. There is the need to carry out an analysis of the various kinds of obligations imposed on the generation, transmission and distribution companies in Nigeria to determine if there are mandates to ensure consistent supply of electricity to consumers.

There is the need to look at the model of South Africa based on their considerably robust supply of electricity. In this regard, an analysis of the laws focusing on electricity in this jurisdiction will be important. A comparison of Nigeria and South Africa reveals that there are multiple and abundant sources of energy in each country that are sufficient to meet the demands of its populace. Thus, a good and efficient energy mix would naturally solve the energy needs of these countries.

It is therefore important to point out that despite being a country with huge potentials, Nigeria has failed to ensure energy security. This reality made this study necessary.

⁷ (EPSRA) 2005

1.3 STATEMENT OF PROBLEM

Nigeria is endowed with abundance of natural resources. Among these resources are those classified as renewable and non-renewable resources. It is expected that some of these resources would be sufficient to sustain and meet the energy demands in Nigeria. However, despite the availability of these resources, there have been several forms of hindrances to their deployment. In this regard, weak and inadequate legislations, weak institutions and absence of robust institutional mechanisms have been significant clogs in the progress of the energy sector in Nigeria. Alongside several other factors such as corrupt practices, sabotage and vandalism of infrastructure, non-implementation of past and present policies which leads to policy inconsistency, are current impediments that need to be investigated. There are legal obligations imposed on generation, transmission and distribution companies through the licences and other relevant laws. These legal obligations are important for investigation as attention has not been placed on them. The legal obligations in this regard are meant to ensure that security of supply is attained. They are direct mandates to organisations to ensure the constant provision of electricity services to consumers backed by law and sanctions for defaulters in the event of breach. Nigeria can therefore be seen as a country that is struggling with the capacity to ensure the availability of stable electricity supply. Thus, an investigation of the various obligations will help to strengthen supply related issues in the electricity industry in Nigeria.

1.4 RESEARCH QUESTIONS

- i. What is the nature and status of electricity regulation in Nigeria?
- ii. What are the legal and contractual obligations agreed upon by parties to address the challenges of electricity supply?
- iii. How can the law and institutional framework be effectively utilised to ensure constant supply of electricity in Nigeria?
- iv. How can law be deployed to compel compliance with statutory obligations for electricity supply in Nigeria?

1.5 OBJECTIVES OF THE STUDY

1.5.1 Objectives

- i. Examine the nature and status of electricity regulation in Nigeria;
- ii. Appraise the legal and contractual obligations agreed upon by parties to address the challenges of electricity supply in Nigeria;
- iii. Evaluate the effective utilisation of both legal and institutional framework for ensuring electricity in Nigeria;
- iv. Assess the role of law in ensuring compliance with statutory obligations for electricity supply in Nigeria.

1.6 JUSTIFICATION OF THE STUDY

This research analyses and provides insight to the various legal obligations imposed on generation, transmission and distribution companies in Nigeria in order to ensure consistent supply of electricity in Nigeria. Legal obligations are important in the electricity industry as they ensure that responsibilities are performed in order to avoid sanctions. These obligations are requirements that are codified and backed up by law for the purpose of ensuring that uninterrupted supply services will be carried out to consumers in the electricity sector.

This research will be of benefit to the academic community as a product of current research and also guide future researchers. It will also be useful to policy makers and legislatures in carrying out their mandate in the development of the sector by ensuring that their activities are targeted towards the necessary legal reforms.

Furthermore, this research hopes to contribute to the existing literature on the jurisdictional and comparative analysis of laws regulating the electricity sector in Nigeria and South Africa. In performing this task, it is believed that the problems associated with the electricity sector would be addressed and resolved through the instrumentality of legal processes and techniques. In this regard, electricity access and availability would spur growth in both the formal and informal sectors of the economy. This will ensure growth in local productions and encourage foreign investments and location of industries in Nigeria. Notably, the cost of engaging in business would be reduced. Small and medium scale enterprises would benefit immensely as the cost of business would have been significantly reduced.

1.7 SCOPE OF THE STUDY

Electricity is crucial to development. This research investigated the obligations imposed by law in the electricity sector in Nigeria. It is not enough to assume that the legal obligations are available. It is important to find out the extent of the obligations and determine if they are sufficient for the purpose of ensuring stability. In terms of stability of electricity which is considered in relation to average power outages per consumer, available data shows that Ghana's average duration of power outages (hours) is 12.59, Nigeria records 8.2 while South Africa records 4.44.⁸ In 2015, Germany records an average power outage per consumer which reflects 12 minutes and 42 seconds.⁹ This is a far cry from the statistics relating to the three African countries considered above. Thus, from the above analysis, it can be concluded that stability relates to the average number of blackouts that can be recorded in a year.

This research spanned from 2005 to the current year of completion of the thesis, which is 2021. The reason for the selection of this period is that it marked the beginning of a new legal framework for electricity in Nigeria. Constraint was encountered in terms of space as all the institutions in the electricity sector could not be covered. Notably, this research covered the Nigerian Electricity Regulatory Commission, Ibadan Electricity Distribution Company, and the Ministry of Power Works and Housing. The above institutions became sufficient as inquiries that were made covered the obligations imposed on all the industry players.

This research was therefore a study of the above institutions and the activities that were being carried out to ensure that consumers benefit from consistent distribution of electricity and also to ensure that the institutions comply with their duties which should attract sanctions for failure. This research also took a look at current directives emanating from the regulatory bodies towards ensuring security of supply of electricity from the distribution companies to the consumers. An attempt was also made to analyse the current Electricity legal framework in South Africa as it concerns the obligations to constantly supply electricity.

⁸See <http://www.nationsencyclopedia.com/WorldStats/ESI-average-duration-power-outages.html> 2007 data accessed on 17th June 2017

⁹Ibid

In drawing an inference from South Africa, it is important to highlight the nexus that exists between Nigeria and South Africa.

Nigeria



Population is about 185, 989, 640 in 2016¹⁰

GDP is 405. 083 billion dollars¹¹

South Africa



Population is about 55, 908, 865 in 2016¹²

GDP is 294.841 billion dollars¹³

Nigeria and South Africa are regarded as Africa's biggest economies.

It has been shown above that that the legal obligations to supply electricity are in two forms which are the statutory obligation to supply electricity and the contractual obligation to supply electricity. In Nigeria, available data has revealed that electricity supply has not been constant in households due to several factors. In this thesis, attention is given to the legal requirements that will ensure constant electricity supply in Nigeria. Thus, the objectives alongside the research questions have been carefully outlined to give full effect to the study that is in this thesis. In essence, this research analysed by way of investigating the various legal obligations imposed on generation, transmission and distribution companies in Nigeria alongside the various established institutions so as to ensure that supply of electricity is constant in Nigeria.

¹⁰The World Bank <https://data.worldbank.org/country/nigeria> accessed on 25th October 2017

¹¹Ibid

¹²Ibid

¹³Ibid

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

In this chapter, it must be emphasized that this is a developing area in terms of research and as such, it explains why there are limited local literatures on it. Notably, most of the authors that have been recognized in this field have expressed views that are socio-economic in nature. It is therefore not surprising that majority of the literature that will be reviewed in this chapter will be biased towards fields other than law. In this regard, majority of the authors have written from purely economics, engineering and scientific point of view. The legal aspect have however been sparsely considered. This chapter will also offer a theoretical framework that will provide guidance to the development of this research. Notably, the research focused on the use of both Socio-Legal theory and Legal Positivism in its analysis.

2.2 LITERATURE REVIEW

There are several works that have considered the issue of electricity globally. These have been viewed in various perspectives particularly as it relates to the problems that face consistent supply of electricity. In this regard, it is therefore necessary to take a look at some of the existing literature in terms of problems, impacts and solutions in order to consider the extent of discussions in this area and to highlight the gaps that have been created. This will enable this research to adequately fill the gaps for the purpose of extending the discussions on the issue of electricity supply as it relates to Nigeria.

2.2.1 Problems

In the build-up to the reform process in Nigeria, Onakoya observes that the commercialization and privatization decree No. 25 was promulgated partly to tackle

the consistent power shortages.¹⁴ This was unable to produce the required outcome because of the unwillingness by the government to carry out the necessary reforms.

The work of Aliyu, Ramli and Saleh conceives that there is crisis in Nigeria with regards to the electricity sector as it is being reflected in the current legal framework. The work goes further to highlight the fact that the industry faced poor financing during the 90s which results into the current predicament of poor electricity in Nigeria.¹⁵ Furthermore, it is noted that there were reasons for the poor handling of the power plants which includes the fact that human resources were poorly trained and the equipments were not properly managed.¹⁶ This study emphasized the role of limited funding and accountability issues as part of the problems facing the electricity sector. It did not however take into consideration the study of the various legal issues that are inherent under the existing legal framework as it affects consistent supply and availability of electricity in Nigeria.

In a research conducted by Oseni, it is shown that detailed analysis of the overall performance of the sector, particularly after the introduction of the on-going reform, shows that the power sector requires further attention for efficiency purposes. The work therefore focuses on the progress of the electricity industry and also makes some directions for policy development.¹⁷ This research did not however, consider the legal aspects of the electricity sector as it concerns supply obligations.

Furthermore, Oricha and Olarinoye addressed the importance of regular power supply in a nation by pointing out that it is the key to economic expansion.¹⁸ The work emphasized that Nigeria is facing enormous technical issues in the energy sector that calls for an immediate attention.¹⁹ Notably, it was observed that the factors affecting stable and efficient power supply constitute both government policy and economy factor. The work concludes that the components affecting the electricity industry in Nigeria are problematic in nature and as such, there is a need to critically attend to the

¹⁴Onakoya A. B, Onakoya A. O, Salami O. A., Odedairo B. O. 2013, *Energy consumption and Nigerian economic growth: An empirical analysis*, European Scientific Journal, vol. 9, pp: 5

¹⁵Aliyu A.S, Ramli A.T and Saleh M.A. 2013. *Nigeria electricity crisis: Power generation capacity expansion and environmental ramifications*. Energy Journal, Vol. 61, p 354-367

¹⁶ Ibid

¹⁷Oseni M.O 2011. *An Analysis of the Power Sector Performance in Nigeria*. Renewable and Sustainable Energy Reviews. Vol 15, Issue 9. p 4765- 4774

¹⁸Oricha J.Y, Olarinoye, G. A. 2012. *Analysis of Interrelated Factors Affecting Efficiency and Stability of Power Supply in Nigeria* International Journal of Energy Engineering, 2(1): 1-8

¹⁹Ibid

issues causing the complexity.²⁰ In essence, while this work considers the importance of stable power supply in Nigeria, it did not discuss the legal aspect dealing with supply obligations as a tool to tackle the identified problems.

In the work of Olugbenga, Jumah and Phillips, it was observed that global attention has continually been paid to electricity market.²¹ Their work identifies several problems in the continuous reform process in the electricity market. These include corrupt practices, delayed progress in expansion of generation capacity, undue government interference amongst others.²² The above, no doubt are issues of importance in the tackling of poor electricity in Nigeria, nevertheless the place of legal obligations for stable electricity supply which was not considered in this work is a core area that must be investigated.

In the work of Christie Etukudor, AdemolaAbdulkareem and Olayinka Ayo, it was noted that the availability of electricity is crucial to the development of the society and can improve the standard of living of people.²³ The work further observes that the challenges facing NESI are untapped energy sources, aging infrastructures, insufficient generation, irregular gas supply, transmission grid outages and failures, high transmission losses and inefficient metering system. No reference was made however of the legal framework or issues that surrounds legal obligations for constant supply of electricity.

2.2.2 Impacts

Okoro and Chikuni, while noting in their work that regular supply of electricity is the emblem of a developed economy, point out that a country that has poor energy infrastructure will deter potential local and foreign investors and hinder substantive development.²⁴ The major challenges according to their research were classified into several components which include environmental and technical issues.²⁵ The research takes further steps by enumerating the opportunities that are derivable from the

²⁰ Ibid

²¹ Olugbenga, T.K, Jumah, A.A, Phillips, D.A. 2013. *The current and future challenges of electricity market in Nigeria in the face of deregulation process*. African Journal of Engineering Research Vol. 1(2), pp. 33-39

²² Ibid p. 36

²³ Etukudor C, Abdulkareem A, Ayo O. 2015. *The Daunting Challenges of the Nigerian Electricity Supply Industry* Journal of Energy Technologies and Policy Vol.5, No.9

²⁴ Okoro O.I and Chikuni E. 2017 *Power Sector Reforms in Nigeria: Opportunities and Challenges*. Journal of Energy in Southern Africa. Vol 18 No 3 pp 52-57

²⁵ Ibid p. 54

reforms of the power sector in Nigeria which include opportunities to invest amongst others.²⁶ It was pointed out that attempts were made to ensure adequate and prompt delivery of quality services, however, the perceived benefits proposed in the research such as increase in employment, reduction in crime rate, reduced tariffs and improved services still serve as part of the challenges that are being witnessed currently in the electricity sector. Despite the strength of the above research, the work did not capture the legal aspects that deal with stability in supply obligations.

Similarly, Joseph in his work observes that the provision of constant electricity is important for the development and the speedy industrialization of any nation.²⁷ He notes that Nigeria currently has about 3,800 Megawatts with regards to power generation.²⁸ He further notes that electric power has been so poor in Nigeria that the economy is now considered as a generator economy.²⁹ He identifies poor financing and work force as part of the problems hindering the optimal performance of the electricity industry but emphasized that the challenges are by no means exhaustive.

Furthermore, he reiterates that electricity consumption of Nigeria on a per capita basis is conceived to be among the lowest globally when compared with that of India which is 616KWH, South Africa which is 4,803 KWH and the United States which is 13,394KWH and by comparison, the republic of South Africa which has a population of about 50 million, with an installed electricity generation capacity estimate of about 52,000 MW.³⁰ Notably, various challenges and issues such as funding, inadequate gas supply, consumers' fraudulent practices amongst others were highlighted, however the means to resolve these issues through legal means were not expressly suggested and emphasized which makes the work open for further research.

Usman, in his work carried out studies to decide the parameters of electricity consumers' satisfaction in order to generate index of consumers' satisfaction using modern psychometric techniques.³¹ He observed dissatisfaction by consumers with

²⁶ Ibid p. 55

²⁷ Joseph O. I 2014, *Issues and Challenges in the Privatized Power Sector in Nigeria*. Journal of Sustainable Development Studies, Vol 6, No 1 p. 162

²⁸ Ibid

²⁹ Ibid

³⁰ Joseph O. I 2014, *Issues and Challenges in the Privatized Power Sector in Nigeria*. Journal of Sustainable Development Studies, vol 6, No 1 p. 163

³¹ Usman A. 2013. *Determinants of Electricity Consumers Satisfaction in Selected Electricity Distribution Zones in Nigeria: Implications for Regulatory Activities* Journal of Asian Business Strategy, 3(6) 2013: p 109

regards to electricity that is supplied. He further observed that the above is caused by poor supply of power. The above result, according to Usman, is attested to by other indicators and drivers of consumer satisfaction.³² His analysis revealed that most of the consumers seem not happy with the service delivery. Furthermore, he suggests that majority of the consumers are not eager to pay for services due to the unruly attitude of the staff.³³ He did not however relate the issues in his work to reflect the legal aspect as it concerns the obligations to ensure supply of electricity.

The work of Iwayemi emphasized that the energy sector is prominent in the socio-economic progress of the country. Notably, he suggests that when there is an increased supply followed by strong demand, this would affect the living standards and an increased income.³⁴ This can be understood in relation to the fact that when there is constant supply of electricity, a lot will be attained to boost the economy. This work however did not consider the regulatory perspective of ensuring stable supply of electricity in Nigeria.

Ologundudu in his work studied the development of Nigeria taking note of the supply of electricity in Nigeria from 1972 to 2010.³⁵ In carrying out his analysis, the use of the Granger causality test was adopted to establish numerous causal link as regards GDP per capita amongst others.³⁶ Important information to policy formulation and implementation was provided by the result of the causality tests. This shows that there were minimal contributions flowing from the industrial sector to economic progress in Nigeria which is caused by poor electricity supply.³⁷ The issue of poor electricity supply was not however raised in relation to the legal obligations to ensure constant supply of electricity.

Similarly, Nnaemeka Vincent Emodi and Samson D. Yusuf in their work points out that the importance of electricity in Nigeria is overwhelming as it determines the socio-

³²Ibid p.120

³³Ibid p. 121

³⁴Iwayemi, A. 1998. 'Energy Sector Development in Africa, A Background paper prepared for African Development Bank

³⁵Ologundudu, M, M. 2014. *The Epileptic Nature of Electricity Supply and its Consequences on Industrial and Economic Performance in Nigeria* Global Journal of Researches in Engineering: J General Engineering Volume 14 Issue 4 Version 1.0

³⁶Ologundudu, M, M. 2014. *The Epileptic Nature of Electricity Supply and its Consequences on Industrial and Economic Performance in Nigeria* Global Journal of Researches in Engineering: J General Engineering Volume 14 Issue 4 Version 1.0 p.35

³⁷Ibid

economic progress of the country and its unavailability may cause problems that can affect the society.³⁸ He further reiterates that electricity is the most widely used and desirable form of energy in Nigeria and in the global community.³⁹ Notwithstanding the above, the work did not consider the legal aspects dealing with supply obligations of electricity as a way of tackling the energy security and particularly stable electricity in Nigeria.

2.2.3 Solutions

In a bid to ensure that disrupted electricity in Nigeria becomes a thing of the past, it has been suggested that unbundling and deregulation is the best route for the industry to navigate.⁴⁰ This position has been highlighted by Amobi. He made an attempt to compare the regime and model adopted by England and Wales in 1990 with the on-going reforms in Nigeria. These similarities as it were can be seen in the

unbundling and deregulation of the Central Electricity Generating Board (CEGB) on the one hand and the unbundling of the National Electric Power Authority (NEPA). Amobi notes that problems such as corruption and emergence of efficient competition are crucial issues that have remained unsolved in the Nigeria electricity sector. This leaves room for further research in resolving the nagging and recurring issues. Notwithstanding the above views, it will be seen that no attempt was made to discuss the legal implications particularly the legal obligations for stable electricity in Nigeria.

Consequently, Gatugel notes that in 2004, the National Independent Power Projects (NIPP) was inaugurated as a fast track project by the government to fabricate new power plants and transmission lines to ensure that the power sector is revitalized.⁴¹

Oke in his book considered the various regulations and laws that are in place in the Nigerian electricity market. He notes that despite the apparent challenges that have been seen under the current legal regime of the EPSR Act, 2005 it is still a welcome development whose benefits far outweighs the model adopted under NEPA. He observed that a major difference in the conceptual and ideological basis of the NEPA

³⁸Emodi N.V, Yusuf S.D. 2015. *Improving Electricity Access in Nigeria: Obstacles and the Way Forward* International Journal of Energy Economics and Policy Vol. 5, No. 1, pp.335-351

³⁹Ibid p. 335

⁴⁰Amobi C.M 2007. *Deregulating the electricity industry in Nigeria: Lessons from the British reform*, Socio-Economic Planning Sciences 41 pp 291-304

⁴¹Gatugel Z. U. 2015. *India and Nigeria: An overview of Power sector reforms and Performance*. Journal of Energy Technologies and Policy. Vol. 5, No 9 p. 13

regime and the EPSR era is that the NEPA Act intended a wholly state-owned sector and government-controlled regulatory institution for the electricity sector.⁴² The work further carried out an extensive review and analysis of the regulations dealing with licences and tariffs alongside the various permits that can be obtained for electricity generation. This book notably represents an attempt to cover the legal issues on electricity in Nigeria. However, the legal aspect on supply obligations was not considered and as such it is considered as a gap that is to be filled in this work.

The various studies available in the literature mostly dwelt on the problems facing the electricity sector which were analysed through scientific and socio-economic means. None of the authors were able to bring out the reasons why laws have not been used to tackle and ensure stable electricity in Nigeria. This research however, would be unique as it proposes to draw inference from the outcomes of the various legal frameworks and the strategies employed in Nigeria and South Africa in a compact platform. Notably, concerning Nigeria, the major focus will be to investigate the legal obligations of the various licensed companies engaged in electricity affairs. This will no doubt serve as a reference and focal point to legislators and policy makers in Nigeria and other developing countries who have similar challenges and resources.

2.3 THEORETICAL FRAMEWORK

The researcher adopted both socio-legal theory and Austin's theory of law which is also known as Legal Positivism. It has been observed that a socio-legal study is an approach that is interdisciplinary in nature which helps to evaluate law and legal phenomena.⁴³ Notably, theoretical work is included, and opinions are derived from the arts as well as the social sciences.⁴⁴ Furthermore, the socio-legal lens expands to observe everyday situations.⁴⁵ It is argued that in this instance and for the purpose of the development of this industry, the state cannot abdicate its responsibility of ensuring access and security of supply of electricity for the consumers. It is a vital resource that must be supported and developed by the state, regulated for equitable distribution and strengthened to ensure that continuous research on the security of electricity supply is encouraged through funding.

⁴²Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication Abuja p. 15

⁴³See <http://www.bl.uk/reshelp/findhelpsubject/busmanlaw/legalstudies/soclegal/sociolegal.html> accessed on 20th June 2017

⁴⁴Ibid

⁴⁵Ibid

Austin's theory of law places strong emphasis on the entrenchment of positive law in the society. Positive law in Austin's view has three main features. The first is that it is a type of command. The second is that it is laid down by a political sovereign while the third is that it is enforceable to sanction.⁴⁶ In Austin's theory, command is a central focal point that drives other thought and action processes. In his analysis of what commands are, a command for Austin is divided into three parts; the first is that the speaker desires that the recipient do something, the second is that the speaker expresses this desire to the recipient while the third is that there is a sanction for failing to comply with the speaker's wishes.⁴⁷

In this instance, it is argued that the inclusion of laws that will mandate the stakeholders in the electricity sector in Nigeria is a very important step in actualising stable electricity supply to consumers. These laws alongside sanctions are expected to be incorporated into the constitution of Nigeria which serves as the supreme law of the land. It is therefore important to point out that where laws have been duly made for the purpose of ensuring stability of supply of electricity in Nigeria, this will deter stakeholders from practices that will lead to poor performance in supply of electricity as they are aware that sanctions will accompany any derogation from laid down principles and practices. Thus, the implication will be that generation, transmission, distribution and regulation authorities will be subjected to the command and sanction principles of the laws.

There is a huge gap between the population and the amount of electricity available for distribution to consumers in Nigeria. This concern has been highlighted by various scholars. The need to adopt a socio-legal approach and the Austin's theory of law is important in this research as it is shown that the former is necessary to justify that the State should be part of the process of ensuring constant electricity supply, while the latter is important to emphasize the fact that where laws are made for the purpose of ensuring compliance by all stakeholders, there must be accompanying sanctions to punish violators. In this regard, YemiOke has been a foremost scholar who has

⁴⁶See <http://mbhaa.com/Microsoft%20Word%20-%20AUSTIN%27S%20THEORY%20OF%20LAW.pdf> accessed on 28th November 2017

⁴⁷Ibid

continually adopted the above theories in his works. This has played out severally in his work *Nigerian Electricity Law and Practice*.⁴⁸

In the foregoing, it has been established that the need to ensure the security of supply of electricity cannot be down played as electricity is a prerequisite for the satisfaction of other basic human needs which help to reduce poverty and further facilitate sustainable development. It is no longer news that attempts have been made severally to cure the menace of poor supply of electricity through such means as the huge injection of funding into the sector. This has however failed to positively lift the sector from its declining state. There is no doubt that several factors such as sabotage and corruption have been considered to be responsible for the poor state of electricity supply in Nigeria, however it is important to view the problems and proffer solutions through a legal perspective as there are loopholes in the legal regime. Therefore, it becomes necessary to investigate the various legal obligations of the electricity companies in relation to generation and supply to consumers. It is based on the above that the need for this research emanated in order to proffer solutions that are pragmatic by drawing from the experiences in selected jurisdictions. It is vital to observe that the questions identified have been structured to guide the direction of the research.

⁴⁸Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company

CHAPTER THREE

METHODOLOGY

3.1 INTRODUCTION

In this chapter, procedures and instruments utilized in conducting this research are described. This chapter also discusses and analyses the primary resources that were utilized in this research work.

3.2 RESEARCH DESIGN

This research adopted the doctrinal legal research methodology. It is conceived as research into legal doctrines through evaluation of statutory provisions and case laws by the utilisation of reasoning.⁴⁹ The focus is upon evaluation of legal directives.⁵⁰ This is carried out by taking up a proposition as a focus. The applicable law is then located in enactments, judicial directives and discussions in commentaries and books. This is read in a holistic manner for the purpose of analysis and report of findings.

In carrying out this research, the various electricity laws of Nigeria and particularly the provisions of the Nigerian Constitution 1999 was studied while the legal obligations in the various licensed electricity companies were considered to determine their adequacy. This process involved interviews and discussions with the major stakeholders. Visits were paid to some of the various established institutions and companies involved with generation and distribution to investigate extent of capacity to fulfil legal obligations and corresponding effectiveness of relevant regulatory institutions in ensuring compliance. This involved a visit to the Nigerian Electricity Regulatory Commission, Ministry of Power and Ibadan Electricity Distribution Commission. In this regard, inquiries into issues pertaining to the electricity industry with reference to electricity stability were carried out through interviews. The analysis

⁴⁹See

http://epgp.inflibnet.ac.in/epgpdata/uploads/epgp_content/law/09_research_methodology/08_qualitative_and_doctrinal_methods_in_research/et/8155_et_et.pdf accessed on 5th December 2017

⁵⁰ Ibid

took into cognizance stability obligations for electricity supply which include both statutory obligations and contractual obligations.

The thesis made use of both primary and secondary resources. The primary resources focused on legislations such as the Electric Power Sector Act 2005, statutes, case laws, the Constitution of the Federal Republic of Nigeria 1999 (as amended) and interviews while the secondary resources focused on texts, journals, articles and monograms.

3.3 RESEARCH INSTRUMENTS

Unstructured interviews were conducted with three purposively selected senior legal practitioners within the Nigerian electricity industry: one respectively from Nigerian Electricity Regulatory Commission (NERC), Ibadan Electricity Distribution Company (IBEDC), and Federal Ministry of Power. Legal analyses were drawn from the Constitution of the Federal Republic of Nigeria 1999 (as amended), Electric Power Sector Reform (EPSR) Act 2005, Subsidiary Regulations, Rules and Codes. Attempts were also made to analyse the current legal framework governing energy and particularly electricity in South Africa in order to draw useful inferences.

3.4 AN ANALYSIS OF THE NIGERIAN CONSTITUTION

The legal obligations to supply electricity can be classified into two forms namely: The statutory obligation to supply electricity and the contractual obligation to supply electricity. The focus of this chapter will be on the former which refers to those provisions of the law that have been put in place in the Constitution of the Federal Republic of Nigeria 1999 (as amended). This Constitution represents the body of laws that supersedes all other laws in Nigeria. As such, it is often regarded to as the grundnorm. The implication of this is that the above body of law is preeminent and accordingly, all authorities and persons are therefore subjected to its dictates throughout the federation.⁵¹

Notably, it is observed that the above legislations are important in safeguarding the interests of persons in Nigeria. Thus, as it relates to electricity and in particular its consumption and availability, it is important to point out that it falls under the Concurrent list. This means that the duo legislatures have powers to make laws on

⁵¹ Section 1 Constitution of the Federal Republic of Nigeria 1999 (as amended)

electricity to the extent that where the Federal legislature has carried out such function, the State legislature will have to be quiet and as such can no longer make laws on it. This process has been conceived as the principle known as covering the field. However, where it arises that laws have not been made in respect of electricity, the State Legislature has the liberty to make laws on it as it deems appropriate.

This chapter intends to thoroughly investigate the current legal framework governing Nigeria which is the 1999 constitution as it concerns the power to legislate electricity. This process will lead to the evaluation of the current electricity laws operating in Nigeria which is the Electric Power sector Reforms Act 2005. There is no doubt that there are obligations flowing from the above framework. Thus, the extent of its implementation will be considered while focusing on the role of the regulator and the Court. In concluding this chapter, the current legal issues that are gaining prominence in the electricity sector will be analysed in order to proffer pragmatic solutions.

The Nigerian constitution is the supreme law that guides every authorities and persons within Nigeria. It posits that this law is prominent and its rules shall be applicable to all persons within the country.⁵² This implies that as long as any provision relating to any matter has been included in the constitution, such becomes superior and must be obeyed by all within the country. Notwithstanding, there have been numerous instances where the above constitutional provision has been tested. In this regard, the court becomes the final point where parties must submit to in order to resolve any conflict in the process of judicial analysis of the laws as contained in the constitution or perceived inconsistency. These inconsistencies are also to be found with laws that were made by legislative bodies in Nigeria. Thus, the law notes further that where there is any inconsistency with it by any other laws, such will be invalidated to the extent of the inconsistency.⁵³ Thus, the intention of the law which is the grundnorm is to be the mother of all laws in Nigeria. This it does by refusing to share its supremacy with any other laws. The implication that can be derived from the above is that the constitution has laid a foundation for other laws to be made within Nigeria. Thus, all other laws are derivable from the Constitution.

⁵² CFRN 1999 as amended. section 1(1)

⁵³ Ibid section 1(3)

The above background is necessary in laying the foundation that births the existence of the laws applicable to electricity in the country. This is essential as it forms the basis of recognizing the importance of statutory obligations within the laws governing Nigerian electricity.

A closer look at the Constitution reveals that there are important provisions that are crucial to the development of this work. Thus, it becomes necessary to highlight the direction of analysis of this thesis which will set out to evaluate those important provisions to the exclusion of others. The provisions that are of concern to this thesis include Sections 1, 4, 5, 6, 14 (2) (b) and the 2nd Schedule specifically Part II with particular emphasis on Item 13, 14 and 15.

Section 1 is very fundamental to the understanding of the constitution. This gives life to all the provisions contained under the law. The law notes that its provisions supersede all other laws and that all parties within Nigeria are subjected to its dictates.⁵⁴

In the above, the supremacy of the constitution and its provisions is emphasized to show the fact that persons must give high regard to its dictates. Thus, where the constitution has mandated specific arms of government to handle issues pertaining to electricity such cannot be ignored. This can however change if the provisions of this constitution are amended accordingly as provided under section 9. If the above has not taken place, it is therefore important that notwithstanding the powers that are to be exercised by the legislative arms, laws cannot be made to contradict the provisions of the constitution. It is in this instance that the law further provides under section 1 that where there are conflicts with the dictates of the constitution, the constitution will be deemed to stand above such thereby voiding such other laws.⁵⁵ Thus, the above has limited the powers of the legislative arm to make laws that will weaken the effect of the compositions of the grundnorm. It is therefore necessary to observe that the scope of electricity as an issue under the constitution remains protected.

Section 4 is an important provision of the constitution. This provision has a lot to do with the emergence of the laws governing Nigeria electricity. It provides that the power to make laws as granted to the legislative arm of the Nigerian government shall

⁵⁴ CFRN 1999 Section 1 (1)

⁵⁵ Ibid Section 1 (3)

be situated in both the Senate and House of Representatives which represents the national assembly.⁵⁶This represents the current context in which laws relating to electricity are made for proper governance. Notably the above provides the background for legislative powers with regards to electricity in Nigeria. Thus, it is further provided under section 4 that further powers to make laws is hereby given to the national assembly with regards to matters in the concurrent list.⁵⁷ The above indicates that the National Assembly is involved with making laws on matters that are contained in the 2nd schedule under Part II with specific emphasis on Item 13, 14 and 15. These powers are however to be shared with the legislative body of the state. Notably, it is provided that the legislative arm of the state is mandated to make laws for the administration of the state as it concerns any issue in the concurrent list that is in the 2nd schedule under part II of the Nigeria constitution.⁵⁸ The above, when read together with section 4 (4) (a) therefore implies that it is the responsibility of both legislative body under the federal government and the state government to legislate on issues under the concurrent list. In this regard however, where there has been an enactment of a law by the federal legislative body on a matter under the concurrent legislative list, the state legislative body can no longer legislate any law with respect to that matter. This is important in respect of legislations that evolved under the federal legislative body on electricity which implies that the State legislative body can no longer assume responsibility of legislating on that matter even though the law allows them to share the power with the National Assembly. It is therefore not surprising that section 4 (5) echoes the above position by providing that where laws made by the state legislative body is not consistent with that of the federal legislative body, such laws will be deemed void to the extent at which it is inconsistent and the federal law will continue to supersede.⁵⁹ The effect of the above therefore is that where an area has been legislated by the federal legislature and a law enacted by the state legislature runs contrary to that of the federal legislative arm, the one made by the federal legislature will be considered as the valid law.⁶⁰ This analysis is important in order to highlight the fact that since electricity is an issue that is subsumed under both the federal legislature and State legislature, there is the need to understand the extent of the

⁵⁶ Ibid Section 4 (1)

⁵⁷ CFRN 1999 Section 4 (4) (a)

⁵⁸ Ibid Section 4 (7) (b)

⁵⁹ Ibid Section 4 (5)

⁶⁰ This is often referred to as the doctrine of covering the field.

legislative powers that have been given to both institutions as regards law making process.

A careful study of the Concurrent List of the second schedule⁶¹ reveals that item 13, 14 and 15 directly deals with electricity. Item 13 provides that the federal legislature is charged with the responsibility to enact laws for the country with regards to issues on the establishment of power stations and electricity, the transmission and generation of electricity across the country, the regulation of the legal right of any authority to carry out dam processes in the country, the alliance of the country with other countries in carrying out electricity distribution, generation and transmission.⁶²

The implication that arises from the above is that it is the responsibility of the federal legislature to enact laws that will administer and regulate electricity in the country. This was carried out previously through the establishment of the previous electricity legal framework and in the present dispensation the Electric Power Sector Reforms Act. This function is also extended to establishment of electric power stations. Power station in this context has been conceived to mean an assemblage of facilities for the production of high-voltage energy.⁶³ Thus, once there is a creation or generation as stipulated above, it is essential that such is transmitted. Transmission is therefore considered to mean the supply of electricity power stations.⁶⁴ In this regard, sub-station becomes an important structure in the transmission process which in this instance refers to an assemblage of facilities for electricity distribution.⁶⁵ The constitution also permits the National Assembly to regulate rights that have been granted to any person or authority in respect of water flow processes in Nigeria. This is necessary as the unhindered flow of water is necessary as a tool for electricity generation. Furthermore, the constitution also permits the National Assembly to legislate on inter-country participation as regards the availability and supply of electricity to other countries through transfer and production of electricity. This is necessary so as to ensure a smooth collaborative effort between Nigeria and other countries for the purpose of electricity availability. This is seen in the effort currently made in the Power Pool an

⁶¹ CFRN 1999

⁶² Part II (Concurrent Legislative List) Item 13

⁶³ Part II item 15 Concurrent Legislative List of the CFRN

⁶⁴ Ibid

⁶⁵ Ibid

arrangement made by West African countries known as WAPP⁶⁶. The constitution recognises the necessity of persons or authorities to self-generate electricity without placing undue burden on the Nigerian electricity grid. Thus, it permits the National Assembly to regulate rights that have been given to persons to handle facilities which is structured to supply electricity.

The above functions are also replicated by the state legislature to the level that they may make laws with emphasis on establishing within the state electric power stations for the purpose of transfer and allocation of electricity to areas not covered by the Nigerian grid system and an establishment of authorities that will be responsible for managing the power stations.⁶⁷ Thus, from this, it is clear that the only areas where both legislative bodies can exercise powers together are in the areas of the creation of high-voltage stations and authorities that are meant to manage the power stations. Thus, it is the reservation of the state legislative body to legislate on issues that are outside the scope of the Nigerian grid system in order to ensure that areas not covered are duly covered by electricity production and distribution.

The above legislative interventions are important and can only be emphasized where the body responsible for executing laws ensures implementation of laws that have been validly made by the law making body of the country. Thus, it is expected that the laws on electricity will be executed by the President or the Governor as the circumstances permit. In this regard, it is provided under section 5 that the president of Nigeria is empowered to exercise executive powers of the federal government alongside with his vice-president and ministers for the purpose of executing laws that are made by the federal legislature.⁶⁸ The above therefore justifies the notion that it is the responsibility of the President to execute all laws enacted by the federal legislature. These can be carried out directly by the president or he may choose to designate persons recognised by law for these roles as the circumstances permit. It is usually in these circumstances that a Minister is appointed. As regards Nigeria's electricity, the Minister in charge of Power handles such responsibilities. The above is also true as it relates to authority granted to the state Governor. Notably, Nigerian constitution provides under section 5 that the Governor of a state in Nigeria is empowered to exercise executive powers of

⁶⁶West African Power Pool

⁶⁷ Part II Item 14 Concurrent Legislative List of the CFRN

⁶⁸ CFRN 1999 Section 5 (1) (a) and (b)

the state government alongside with his deputy governor and commissioners for the purpose of executing laws that are made by the state legislature.⁶⁹ Thus, from the above, the Governor of a State is mandated to give effect to the legislations enacted by the state legislature and particularly in respect of electricity, as long as such laws does not encumber the performance of the powers granted to the president for the administration of the country or compromise the properties of the Nigerian government.⁷⁰ The caution here is the fact that effect ought not to be given to laws that will contradict the exercise of power by the President or his nominees.

There is no doubt that in the process of the exercise of powers by the executive, persons or authorities, issues may arise which will require adjudication in order to determine the balance of responsibilities. Consequently, the courts are central to the determination of such disputes as administered by designated judicial officers. In this regard, section 6 opines that the courts that have been established under the constitution are charged with the responsibility of administering the judicial powers of the country.⁷¹ This implies that both the federation and the State have courts as provided under the constitution that can deal with disputes related to electricity.

3.5 AN ANALYSIS OF THE REFORMS IN THE ELECTRICITY SECTOR

3.5.1 Introduction

The Nigerian electricity industry has experienced different reforms from inception. Notably, the above suggests a step in the right direction. Its introduction however came in without a substantive regulation in place. The need for regulation and particularly laws for the electricity sector became imperative over the years due to its economic usefulness as various individuals and organisations became interested. No doubt, it is an essential service that will benefit the public. It is therefore not surprising that the government had to ensure its distribution to all parts of the country while ensuring that laws are put in place to control all activities related and incidental to its operations. It is therefore necessary to analyse the current legal regime with a view to understanding the nature of the legal framework in relation to international best practices. This will further help to determine if the current legal regime has been structured to take care of

⁶⁹ Ibid Section 5 (2) (a) and (b)

⁷⁰ CFRN 1999 Section 5 (3) (a) and (b)

⁷¹ Ibid Section 6 (1) and (2)

stable supply of electricity in Nigeria. In this regard, it is necessary to review the status of electricity in Nigeria while taking a look at some important aspects in the electricity industry in Nigeria. It is believed that these are factors that will assist in ensuring stable electricity supply in Nigeria.

3.5.2 Review of Nigeria's Electricity Status: Past and Present

Nigeria has a population estimated to about 190 million.⁷² The growth rate of the population suggests that power usage in terms of demand and supply must be commensurate. This has however not been the case. Iwayemi observes that over the past decades access to quality electricity has been hampered considering the vast population of Nigeria. He notes that the electricity situation in Nigeria is a crisis which is striking.⁷³

Historically, in 1896 it was observed that availability of electricity began with a generating set that was used to provide electricity for Lagos colony with an installed power of 60kw. The highest demand at this period was lower than the generated 60kw. This incidence took place fifteen years after England had started generating electricity.⁷⁴ Notably, during the year 1946, an administrative authority was set up by the government of Nigeria under the directive of the department of public works to ensure that electricity is fairly distributed in Lagos.⁷⁵ In 1951, a Corporation that will oversee Nigeria electricity was created while a Dams authority was equally created for the sole purpose of the development of the Hydro power. In 1972, the merger of the Corporation and the Dams authority was implemented successfully to form National Electric Power Authority (NEPA).⁷⁶

It is important to note that the energy sector did not benefit from funding in facilities upgrade during the previous years.⁷⁷ During the time under review, new machineries were not purchased while the old ones were poorly taken care off thus ensuring a near collapse of the power sector. Thereafter, Sambo notes that there were inconsistencies with the power generation during the period of 2001 despite the generating units that

⁷²See <http://www.worldometers.info/world-population/nigeria-population/> accessed on 24th April 2017

⁷³Iwayemi A. 2007. *Investment in Electricity Generation and Transmission in Nigeria: Issues and Options*, International Association for Energy Economics p. 37

⁷⁴Niger Power Review: Development of the Electricity Industry in Nigeria (1960-1985), 1985, pp. 1-6.

⁷⁵Okoro O I and Chikuni E 2007 “*Power sector reforms in Nigeria: opportunities and challenges*”, Journal of Energy in Southern Africa Vol 18 No 3.

⁷⁶Ibid

⁷⁷Sambo A. S. 2008 “*Matching Electricity Supply with Demand in Nigeria*”, IAEE Fourth Quarter p.32

were installed in the country.⁷⁸ There were notable improvements in the industry in 2005 due to the funding by some investors which ensured the upgrade of some power plants and as such it was recorded that the generation was peaked at 3774MW out of about 4000MW considered as the generation that was available.⁷⁹ Arif however points out that 5 years into the reforms, minimal upgrade had been carried out and as such generation that was available was lower than 4,000MW for an estimated 150 million people.⁸⁰ It must be stated that substantial improvement was recorded through the emergence of Independent Power Producers (IPPs) which have helped significantly to contribute to an improvement in the electricity situation in the country. Notably, the emergence of the independent power producers was actualized by the government of Lagos State and the Nigerian Electric Power Authority.⁸¹ Thus, three large-scale Independent Power Producers contribute about twenty five percent of the electricity consumed by Nigerians thereby supporting the government and the electricity company who provides the balance.⁸² Annexure 1 shows us the list of all Distribution, Transmission and Generating stations as at 2017 in Nigeria. This reveals that there are several generation plants which are either on grid or off grid. Notably, there are in existence 82 generation companies that operate based on their licences at either on grid or off grid level, majority of them being IPPs and NIPP; one Company that transmits power controlled by the Nigerian government and 16 distribution companies.

It is important to note that in 2014, the generated capacity was 6,662MW while the peak energy generated stood at 4,420MW.⁸³

The statistics for 2016 revealed that while the generated energy stood at 2,464.01MWH/H, the energy transmitted stood at 2,422.75MWH/H, peak generation was 2,687.2MW while the peak demand forecast was 12,800MW.⁸⁴ This shows that Nigeria has a huge gap in supply of electricity for consumers within Nigeria. Thus, it is

⁷⁸ Ibid p.33

⁷⁹ FolorunsoOladipo and OlowuTemitayo, 2014. *'The Nigerian Power System Till date: A Review'* International Journal of Advance Foundation and Research in Science & Engineering (IJAFRSE) Volume 1, Issue 5, p. 21

⁸⁰ Mohiuddin, Arif. 2011 *"The Privatization Transaction Process and the Opportunities for Investments in the Nigerian Power Sector."* Electric Power Sector Reform Workshop, Abuja

⁸¹ Ibid

⁸² About 1,000 MW (IPPs) and 3,000 MW (non-IPP), respectively

⁸³ FolorunsoOladipo and OlowuTemitayo, 2014. *'The Nigerian Power System Till date: A Review'* International Journal of Advance Foundation and Research in Science & Engineering (IJAFRSE) Volume 1, Issue 5, p. 22

⁸⁴ See <http://www.power.gov.ng/> accessed on 3rd March 2017

necessary to consider the flow of energy in the sector. This will further give a clearer picture of the huge gap in the sector.

3.5.3 Nigeria's Energy Flow (Electricity Sector)

A study carried out by the advisory power team,⁸⁵ revealed that an estimate of 95 million persons which amounts to about 55% of the inhabitants in Nigeria lacks the opportunity to connect to electricity while the persons with such opportunity to connect to the national grid are constantly dealt a major blow by interruptions in power supply.⁸⁶ A study of Nigeria and South Africa's per capita consumption in grid based electricity consumption is in the average 129kwh and 3,904kwh.⁸⁷ These indicators show that Nigeria lags far behind its counterpart with its per capita consumption. These figures are closely similar to the research carried out by the advisory power team which recorded that South Africa and Nigeria's per capita consumptions were in the average of 3,926kwh and 126kwh respectively.⁸⁸

In figure 3.1 below, an attempt has been made to illustrate Nigeria's power sector energy flow.

⁸⁵Office of the Vice President, Federal Government of Nigeria in conjunction with Power Africa

⁸⁶Advisory Power Team, Nigeria Power Baseline Report. 2015 p. 5

⁸⁷See <https://www.worlddata.info/africa/ghana/energy-consumption.php> accessed on 28-2-2017

⁸⁸Advisory Power Team, Nigeria Power Baseline Report. 2015 p. 5

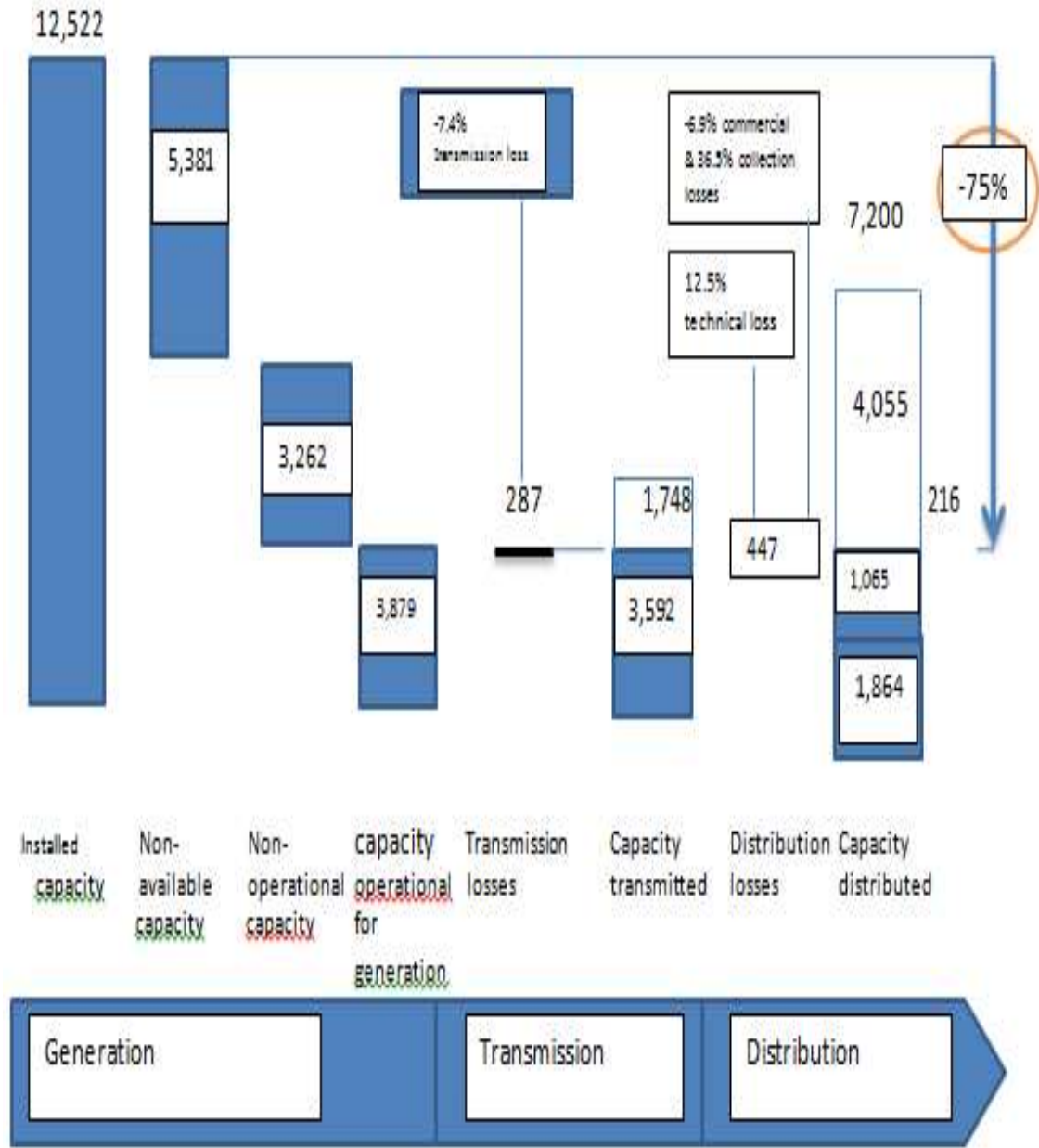


Figure 3.1 Nigeria's energy flow (power sector) (MW)⁸⁹

Source: Advisory Power Team, 2015

⁸⁹ Team Analysis, TCN reports, Advisory Power Team 2015

Figure 3.1 above reveals that in 2015, it is estimated that close to 25% of the country's available capacity was distributed. Notably, three stages are in existence for the purpose of delivering power to consumers which are power plant generation, transmission to distribution companies who then ensures the product gets distributed to the consumers. The short fall in the figure above which is estimated at 5,381MW represents non-available capacity which is caused by decaying and obsolete infrastructures and consequently poor maintenance of existing power plants while the non-operational capacity estimated at 3,262MW is occasioned due to line constraints, gas, water and high frequency.⁹⁰ The generation of electricity cannot be achieved without the presence of diverse energy sources in Nigeria. In view of this, it becomes important to consider an overview of the different sources of energy which are being utilised in Nigeria. This is considered in the next section.

3.5.4 Different Sources of Energy for Utilisation in Nigeria

There is no doubt that Nigeria is a major oil producer and that she is rich in other energy sources. These sources are classified under renewable and non-renewable forms of energy and they include gas, coal, wood, tar sands, hydro power, wind, and solar power. Undoubtedly, the popularity of oil cannot be underestimated. No doubt, other sources of energy are fast becoming relevant. Biomass energy has been the earliest form utilized by Nigerians and domestic cooking was mostly the beneficiary as it regards its usage. In 1896, the use of imported coal started. However, it was in 1909 and 1916 that it was discovered and originally produced respectively.⁹¹ In 1901, the exploration of oil began, however, its commercial value was discovered in 1956 while production began around 1958. Oil usage as a dominant form of Nigeria's energy only became rampant around 1969, at a period where the production of hydro energy began.⁹² Currently, in Nigeria, as shown below, there is much dependence on gas and hydro power as a major contributor to the generation of Nigeria's electricity. Undoubtedly, there are certain circumstances where consumers patronise other forms such as solar and generator sets to provide electricity for their abode and organizations where supply from the grid is not forthcoming.

⁹⁰ Team Analysis, TCN reports, Advisory Power Team 2015

⁹¹ Ogunson O. 1990. *History of Energy Sources and their Utilization in Nigeria*, Journal of Energy Sources Vol 12, Issue 2.

⁹² Ibid

Table 3.1. Generation of Electricity (Power Stations in Nigeria)

Station	Source of energy	Inaugural date	Capacity installed (in MW)	Current output (in MW)	No of units	Output as % of installed capacity
Oji	Thermal	1956	30	NA	4	NA
Delta	Thermal	1966–99	900	366	20	40.67
Kainji	Hydro	1968–78	760	445	12	58.55
Ijora	Thermal	1978	60	8	3	13.33
Sapele	Thermal	1978–1981	1020	62	10	6.08
Afam	Thermal	1978–1982	960	85	18	8.85
Jebba	Hydro	1983–1984	560	339	6	60.54
Egbin	Thermal	1985–1987	1320	243	6	18.41
Shiroro	Hydro	1989–1990	600	281	6	46.83
Total			6210	1829	85	29.45

Source: Bello-Imam, 2009⁹³

⁹³ Bello-Imam I.B. 2009. *The power and energy conundrum in Nigeria: which way forward?* I.B. Bello-Imam, R.D. Abubakre (Eds.), Yar'Adua's Seven Point Agenda: An assessment, College Press, Ibadan

Table 3.1 reveals that as at 2009, the energy generated by the power plants based on the capacity installed was 1829MW. Currently, reports from Nigerian Electricity Regulatory Commission reveal that at the peak and off peak period, the energy generated by the power plants is 4557 and 3261 (MW) respectively.⁹⁴ The need to add to the existing generating stations cannot be over-emphasized as the available ones are not capable of ensuring supply to Nigerians generally. Thus, it is important to consider other possible ways of ensuring security of supply of electricity for Nigeria. In this regard, it is therefore necessary to have a discussion on the regional support for the supply of electricity in Nigeria which will be carried out in the next section.

3.5.5 Electricity Support and Collaboration (Supply): West Africa

Nigeria does not benefit from electricity distribution from neighbouring countries at the moment. There is no doubt that these countries in West Africa do have their unique challenges in meeting the demand of their consumers. The implication of this is that each country concentrates on its territory to solve its supply issues. The closest to a regional supply in this regard has been the availability for sale of gas to Ghana in order to cover up for its electricity demand. This trend has however diminished in the past months due to the incessant conflicts that arose in the major oil rich region in the country. Thus, in order to cover up the short fall in supply of electricity, West African States have come together to strategize on the implementation of a structure that would give meaning and purpose to their intentions. These led to the West African Power Pool.

This is a special body of the ECOWAS which operates in the overall interest of the region's energy system so as to increase the efficiency in the supply of electricity across the region.⁹⁵ The essence of WAPP therefore is to ensure that the electricity system is integrated towards the operation of a market system regionally.⁹⁶

The operation of WAPP ensures that there is a master plan that incorporates the processes of ensuring a clear strategy that will provide a good background for the West

⁹⁴See <http://www.nercng.org/> accessed on 12th of April 2017

⁹⁵ See <http://www.ecowapp.org/> accessed on 10th March 2017

⁹⁶ Ibid

African electricity market.⁹⁷This plan aims to guide the numerous stakeholders in implementing ideas and ensuring that projects are completed on time according to specifications.⁹⁸Notably, the year 2011 marks a substantial improvement in the actualization of the projects as various projects were completed.⁹⁹ It is believed that the conclusion of all these projects would facilitate an increase and availability on demand of electricity. Electricity supply has various important components. These can be seen in the value chain from the generation of electricity to the consumers. Thus, attention needs to be placed on how this operates in the Nigerian electricity industry.

3.5.6 Supply Value Chain: Generation to Consumers

The generation of electricity is carried out by the various generation companies (GENCOs) and transmitted to the grid. It is at this point that the lines transmitting electricity are used to connect the distribution companies who then distribute the transmitted electricity to the various grid connected consumers. The traditional approach is that once a customer receives energy for a month, payment is made to the distribution companies. However, consumers have been reluctant to pay due to the quality and quantity of supply. In order to curb this problem, the introduction of pre-paid meter was deployed to the various consumers. This has however not covered the majority of consumers. The major issue is liquidity of the Distribution companies which hinders the smooth operation of the supply value chain. It is at this point that the value chain is usually being distorted.

There are situations where the flow may be distorted due to activities of some companies charged with the sole responsibility of making available gas for electricity generation. This is a distortion from generation to transmission. There are also situations where distribution may be distorted by failure to supply to consumers.

In *Commercial Solvents*,¹⁰⁰ it was observed that there are consequences for the failure to make products available to customers. It was held that in circumstances where there is a high level of influence by a bigger firm on the downstream market which disturbs the inflow of certain goods into the market, the failure to allow a previous client

⁹⁷See http://ec.europa.eu/europeaid/update-west-africa-power-pool-wapp-masterplan_en accessed on 10th March 2017

⁹⁸ Ibid

⁹⁹ Ibid

¹⁰⁰ *Istituto Chemioterapico Italiano SpA and Commercial Solvents Corp v Commission* (6 & 7/73), 6 March 1974, [1974] ECR 223, [1974] 1 CMLR 309, CMR 8209

opportunity to make entry into the market for commercial transactions is considered as a misuse of its influence in the market which is against the provision of Article 82 in instances where every form of opportunities are not granted to other interested persons without just cause.¹⁰¹The case of *United Brands Company and United Brands Continental BV v Commission*,¹⁰²the European Court of Justice (ECJ) notes that:

... It is advisable to assert positively from the outset that an undertaking in a dominant position. . . which cashes in on the reputation of a brand name known and valued by consumers – cannot stop supplying a long standing customer who abides by regular commercial practice, if the orders placed by the customer are in no way out of the ordinary¹⁰³

Thus, from the above it is important to emphasize that failure to supply essential services is considered as a misuse of influence and therefore hinders competition. Supply can be hindered by such factors like funding which is being seen as a crucial aspect of the growth of the Nigerian electricity industry. In the next section, a discussion of the importance of finance will be considered while emphasis will be placed on the roles and functions of the bulk trader in ensuring liquidity in electricity industry.

3.5.7 Cash Flow And Financing: Role of Nigerian Bulk Electricity Trading Plc (NBET)

In the words of Oke,¹⁰⁴ the Nigerian Bulk Electricity Trading is also known as the Nigerian Bulk Trader and is a wholly owned company established by the Federal Government of Nigeria.¹⁰⁵

It was incorporated on July 29 2010 and holds a Bulk Electricity purchase and resale license from the Nigerian Electricity Regulatory Commission (NERC) in line with section 31 of the EPSR Act, 2005.¹⁰⁶

The electricity sector, like every sector in Nigeria, requires funding for its various components and machineries. The huge cost attributed to the operation in this sector no doubt could be one of the cogent reasons for the establishment of NBET. This

¹⁰¹EC Treaty

¹⁰²(27/76), 14 February 1978, [1978] ECR 207, [1978] 1 CMLR 429, CMR 8429.

¹⁰³ Ibid

¹⁰⁴Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p. 418

¹⁰⁵ This was carried out in line with the requirements of section 26 (2) of EPSRA No 6 of 2005

¹⁰⁶Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p. 418

sentiment was echoed by President GoodluckEbele Jonathan, GCFR (2010-2015) during its inauguration that there is strong possibility of attaining success by the bulk traders towards ensuring that payments backlogs by the discos will not hinder the operations of the industry. Furthermore, the president observed that this measure will ensure that the discos will be strengthened financially so as to have capacity to carry out the purchase of power directly.¹⁰⁷

There were reforms by the federal government in 2001 which ensured the adoption of the NEPP¹⁰⁸ and subsequently in the eventual passage of the EPSRA. Notably, an important feature of this reform is the alienation of the management of the sector from public to private. The Act, furthermore enhanced an introduction of the PHCN which took over operations from NEPA.¹⁰⁹

In addition, the Nigerian Bulk Electricity Trading Plc, (NBET), the bulk dealer, was incorporated as the Special Purpose Vehicles (SPV) in July 29, 2010, for the performance, purchase and resale of bulk materials under the EPSRA in order to comply with EPSRA requirement. This is in line with the "Road map for power sector reform" of President Goodluck Jonathan dated August 2010. The NBET has therefore been established to 'participate in the buying and selling of electricity and auxiliary facilities by independents and generators'.¹¹⁰

Among other things, NBET's role and mandate is to buy electricity from the generating firms through Power Purchase Agreements (PPAs) and sell it through Vesting Contracts to the distribution firms. The newly privatized PHCN firms, the Niger Delta Power Holding (NDHC), the current Independent Power Producers (IPPs) and fresh IPPs form the part of the producing firms.¹¹¹

Other terms of reference include:

- a. Establishing a more efficient atmosphere for transactions which minimizes danger and relatively allocates it to finest managed sides.

¹⁰⁷ Inauguration of NBET, speech delivered by President Goodluck Jonathan

¹⁰⁸ National Electric Power Policy

¹⁰⁹ See www.nbet.com.ng accessed on 3rd March 2017

¹¹⁰ Ibid

¹¹¹ Ibid

- b. Implementing a transparent procurement method that will provide the necessary financial authority.
- c. Contracts that are well organized and well-managed to avoid the use of any tool of loan security.
- d. To enter into new agreements and complete them as quickly as generators are prepared to purchase their own goods.¹¹²

NBET has been appropriately capitalized in order to satisfy its generation company billing commitments: distribution company delivery of fees for power purchases by way of Vesting Contracts – about \$150 million a month, distribution companies' letter of credit or bank guarantees of 3 months of predicted business shortfalls.¹¹³

Funding is crucial to the survival of the bulk traders and this has been a major clog in its operational affairs. This is reflected by its inability in ensuring that payments are made to the Gencos who are being hindered in their operations due to their poor financial commitments towards the gas suppliers. Thus, lack of liquidity has made it impossible for NBET to deliver on its obligations to the Generating Companies. Thus, an initiative to close the liquidity gap was introduced by the Central Bank of Nigeria so that the Gencos will not be hindered in their operations to fund those supplying gas.¹¹⁴ Definitely, funding is crucial to the industry and an accompanying legal framework to ensure its sustenance and stability is of essence. The major law governing the electricity industry in Nigeria will therefore be considered in the next section.

3.5.8 The Electric Power Sector Reforms Act 2005

The EPSRA was passed into law to introduce a vibrant and progressive electricity regime capable of addressing the needs of consumers in Nigeria. The EPSRA under section 99 repealed the erstwhile law on electricity which is the National Electric Power Authority Act as amended (L.F.N 2004 Cap. N33). It however retained the

¹¹² See www.nbet.com.ng accessed on 3rd March 2017

¹¹³ Ibid

¹¹⁴ See <http://www.premiumtimesng.com/business/business-news/225007-nigerian-govt-adopts-measures-end-cash-problems-power-generating-companies.html> News article of 1st March 2017 by SaniTukur accessed on 3rd March 2017

existing subsidiary legislations as contained under Section 98 (1) and (2). The Act is structured into 13 parts with 101 sections.

EPSRA's emergence nevertheless had obstacles and oppositions. In the past decades, the Nigeria power sector was controlled by the PHCN, a federal government owned company. Sambo notes that the period of 2005 is eventful as it marked the time where the then president signed the electricity law that gave the private organisations to become a stakeholder in the energy sector.¹¹⁵ This process as it were led to the unbundling of the sector where 6 Gencos, 1 Transco and 11 Discos emerged. The transmission process was however retained by Nigerian government. There emerged several problems in the course of privatization and as such the process was delayed and rescheduled for 2006.¹¹⁶ The emergence of president Yar' Adua disturbed possible progress of the privatization¹¹⁷ as it was suspended and in its place a conference that was aimed at industrializing Nigeria by 2020 was set up and unveiled. This did not come into fruition due to the ill health and eventual demise of the President.¹¹⁸ The new government, which created its President's Action Power Committee (PACP) in particular to achieve policy coherency and cut-off bureaucratic indecision by key players in power, and develop the Presidential Power Task Force (PPTFP) for day-to-day planning, this development led to a revival of sector development.¹¹⁹ The purpose of the law is structured to achieve the following:

- a. Transfer to and subsequent disbundling of NEPA resources to PHCN: a transmission corporation (TCN), six generators, 11 production businesses (Discos)
- b. NELMCO to take over PHCN stranded assets and liabilities
- c. Establish a bulk trader of power as a broker between power producers and Discos

¹¹⁵Sambo A.S. 2008, *Matching Electricity Supply with Demand in Nigeria*. International Association for Energy Economics, Fourth Quarter

¹¹⁶Onochie U.P, Egware H.O and Eyakwanor T.O. 2015. *The Nigeria Electric Power Sector (Opportunities and Challenges)* Journal of Multidisciplinary Engineering Science and Technology (JMEST) Vol. 2 Issue 4, p.494

¹¹⁷ This is due to the fact that every new government does not usually continue with the previous administration's policies and prefers to start a new policy that will bear its name.

¹¹⁸Onochie U.P, Egware H.O and Eyakwanor T.O. 2015. *The Nigeria Electric Power Sector (Opportunities and Challenges)* Journal of Multidisciplinary Engineering Science and Technology (JMEST) Vol. 2 Issue 4, p.494

¹¹⁹Ibid

- d. Establish an independent sector regulator: (Nigeria Electricity Regulatory Commission (NERC) charged with the responsibility of tariffs regulation and monitoring of the quality of services of the PHCN
- e. Provide for a consumer assistance fund
- f. Develop competitive electricity market
- g. Licensing of IPPs and ring-fence distribution companies
- h. Establish a rural electrification agency (REA).¹²⁰

In 2013, and according to the dictates of the EPSRA, the privatization of PHCN was completed.

Notably, the current electricity regime has been in place since 2005. During this period, the strength and weaknesses of the legislation have been tested in diverse areas. These various tests have revealed its apparent weaknesses and loopholes. Thus, it has probably become necessary for further legislative interventions in order to ensure a viable regime that will further strengthen the electricity industry. The notable areas that might require interventions are:

- i. It is provided under the EPSRA 2005 under Part II that competition will be allowed. However, this has not been reflected. Notably, the DISCOs are not competing as they are region and location based. Thus, competition will be introduced once licences are granted to companies to operate alongside the existing ones in the same region and location. This will ensure that consumers have choices and it will enhance performance and growth in the industry.
- ii. There are a lot of leakages in the financial records of DISCOs that need to be blocked. The traditional practice is to disconnect defaulting consumers and wait for them to clear their debts. This is not economical for the DISCOs as delayed payments can lead to shortages occasioned by fall in the value of the Naira. In this regard, it is rather economical to provide pre-paid meters to defaulting consumers once consistent default is registered. As such, the DISCOs are sure of prompt inflow of cash debts which will be deducted from purchases of units from them. This is an efficient way of managing debts which will reduce the

¹²⁰Onochie U.P, Egware H.O and Eyakwanor T.O. 2015.*The Nigeria Electric Power Sector (Opportunities and Challenges)* Journal of Multidisciplinary Engineering Science and Technology (JMEST) Vol. 2 Issue 4, p.494

debts from being devalued over time. In this regard, it becomes important to include this aspect as part of a legislative reform process.

- iii. Sequel to the above, the termination of the CAPMI¹²¹ payment system by NERC with a deadline of 1 November 2016 was introduced. This is an initiative to regulate the Discos poor handling of the system. The implication of this is that no further payment must be made as regards meters till the programme terminates and those who have paid earlier must continue to be metered by the Discos.¹²²

However, metering problems continued to persist which led to the introduction of the Meter Asset Provider which is regulated under the MAPR 2018.¹²³ Oke observes that the main aim of the regulations was to bridge the metering gap in the Nigerian Electricity Service Industry and to also ensure that consumers are only charged for electric power actually consumed.¹²⁴

- iv. The success of the legal regime requires an independent regulator. It is in this respect that the regulatory commission for the electricity sector in Nigeria becomes important as it serves as intermediary between both consumers and industry. There have been conflicts in this regard particularly with respect to the proposal for an increase in tariff which was rejected by the regulator amidst protest from consumers.

The institutions in the energy industry will no doubt propel the current legal regime in order to achieve optimal achievement in the industry. A discussion as regards the various institutions will be considered in the next section.

3.5.9 Roles of Established Institutions in the Electricity Sector

Nigeria currently has several institutions in place which deals with the electricity sector. These institutions are:

1. Federal Ministry of Power

It is an institution that serves as the umbrella for other institutions like NERC, REA, EMSL, and NAPTIN who are specifically charged with the training of power sector staffs. They are the policy making body of the industry and are in charge of the policy

¹²¹Credited Advance Payment for Metering Implementation

¹²²See <http://energymixreport.com/category/live-news/> accessed on 28th September 2016

¹²³See Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p.720

¹²⁴Ibid p. 721

direction for the electricity sector. Notably, its core mandate is to execute the objectives of the presidency as regards generation, distribution and transmission of power nation-wide.¹²⁵

2. Federal Ministry of Environment

The ministry is charged with the responsibility to protect the environment by ensuring the effective management of issues that involves the environment.¹²⁶ It is therefore a ministry that has strategic role to play in ensuring that power firms and infrastructures comply with standard practices. This is usually done by ensuring that projects in the electricity sector comply with environmental impact assessment (EIA). This will ensure that the environment will be safe from the various hazards that are attributed to the construction of power infrastructures in the Nigerian energy industry. It is also at the forefront in promoting climate change and clean energy while ensuring that the effects of climate change are totally mitigated.

3. Federal Ministry of Science and Technology

This serves as the umbrella body for ECN and NASEI. Notably, one of the mandates of the ministry as it relates to electricity is to increase the reliance placed on several energy needs for the purpose of ensuring sustainable development in the industry.¹²⁷

4. Federal Ministry of Water Resources

The country relies on hydropower as part of its energy mix. It is therefore important that proper utilization of the hydro resources available in the country is carried out in an effective way. This is an aspect where the ministry becomes a strategic partner in ensuring that electricity is available for generation. The core mandate of the ministry which is in line with the above is to execute objectives that are geared towards ensuring security of water supply which meets the standard safety test.¹²⁸ The above mandate therefore becomes important where the ministry spearheads projects such as dams that will be useful for electricity generation.

5. Federal Ministry of Industry Trade and Investment

Nigeria's electricity sector requires heavy investment for infrastructural development. The ministry is therefore charged with the duty to ensure that the country is safe for the purpose of ensuring that foreigners are willing to invest in the country. The ministry in ensuring stated objectives above supervises SON.

¹²⁵See <http://www.pwh.gov.ng/index.php> accessed on 15th May 2018

¹²⁶See <http://environment.gov.ng/index.php/about-us/about/about-ministry> accessed on 16th May 2018

¹²⁷See <http://scienceandtech.gov.ng/mandate/> accessed on 16th May 2018

¹²⁸See <http://waterresources.gov.ng/mandate/> accessed on 16th May 2018

6. Nigeria Bulk Electricity Trading Plc

The bulk trader administers the electricity pool. Its ownership is situated with the federal government of Nigeria. Below, is a figure that depicts a fair illustration of the relationship that exists among the industry players.

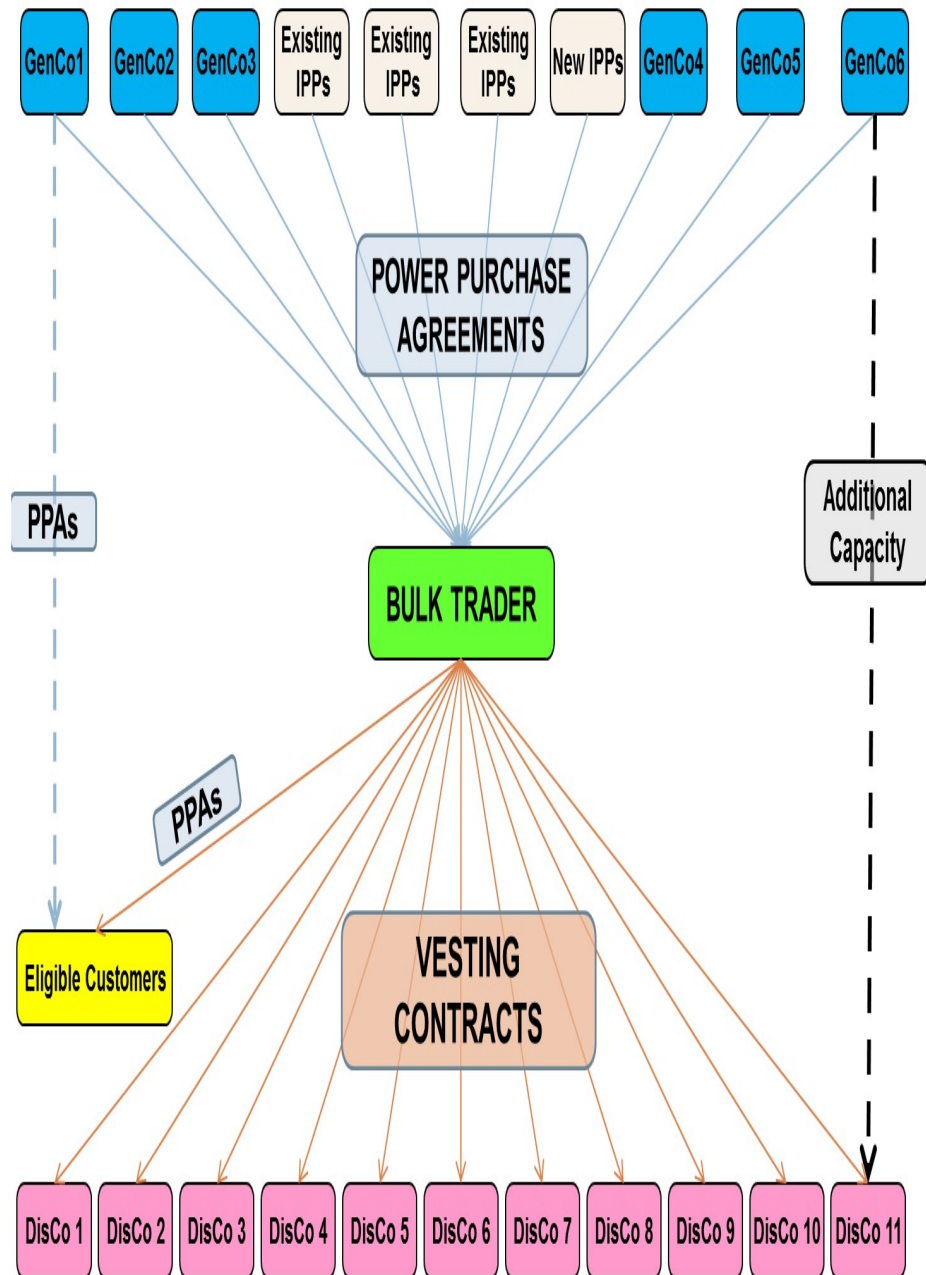


Figure 3.2: Relationships among existing Industry players

Source: NBET 2018

Figure 3.2 depicts the use of both the Power Purchase Agreement and the Vesting Contract as legal documents to complete financial activities between NBET, generation companies and distribution companies. The bulk trader buys power from through the Gencos by a purchase agreement and in turn sell same to Discos by virtue of a vesting contract.¹²⁹

7. Nigeria National Petroleum Corporation

In 1977, the NNPC was established for the purpose of processing and exploration of crude oil. In carrying out the above mandate, it operates through several subsidiary companies which are all regulated by the department of petroleum resources.

No doubt, the department of petroleum resources is a critical agency that monitors the activities of the subsidiaries in order to ensure that their practices are in line with stated guidelines.¹³⁰

3.6 AN ANALYSIS OF SUBSIDIARY REGULATIONS, RULES AND CODES GOVERNING ELECTRICITY

3.6.1 An Introduction

Governance of the electricity industry is not only directed through the provisions of the enabling law (EPSRA) but also by regulations, rules and codes which are made pursuant to the Act. The essence of the above is to ensure that certain issues that are of core importance in the industry are prioritized for developmental purposes. It is also important that special attention should be given to certain areas that require expertise and continuous oversight. It is therefore necessary to consider the importance by way of analysis of some of these regulations, rules and codes in the light of the current regulatory regime.

¹²⁹ See <http://www.nbet.com.ng/about-us/what-we-do/> accessed on 30th May 2018

¹³⁰ See <http://www.nnpcgroup.com/AboutNNPC/CorporateInfo.aspx> accessed on 30th May 2018

3.6.2 Subsidiary Regulations

3.6.2.1 Captive Power Regulations 2008

The above is made by NERC pursuant to s. 96 (1) of the Electric Power Sector Reforms Act. Its purpose is to make binding directives that will ensure granting of permits for interested persons or companies for the purpose of captive power generation. The above becomes important for the purpose of implementation of specific provisions¹³¹ as contained in the EPSR Act that enables the regulators to ensure that the market and the industry players are coordinated efficiently for the purpose of having stability in the industry.¹³²

Captive Power Generation has been conceived in terms of electricity generation which is more than 1mw aimed at providing electricity for the party generating same without the intention to sell generated electricity to other persons.¹³³ It is important to point out that the essence of the above is to ensure that persons are allowed to carry on their business enterprise through the use of their captive power plant to generate electricity that would be useful for the progress of their enterprise rather than rely on the ones supplied by the distribution companies.

Given the above background, the regulation provides generally for procedures for application of a permit for persons interested in captive power generation. Thus, in circumstances where a party intends to manage for the purpose of generation, captive plants, such party is expected by law to seek for a permit for such plant as directed by the commission's terms.¹³⁴ The implication of the above therefore is that the commission has the discretion to set out terms and conditions for the issuance of a permit to applicants. This must however be done in a manner that will not be inconsistent with the Regulation. It therefore suggests that unless the Regulation is amended, the commission cannot exercise its discretion outside the limits designated by the Regulation.

The Regulation sets out under Schedule I the form in which the application for a permit can be made. This form is made available from the office of the Commission and can also be downloaded from the website of the commission.¹³⁵ This latter process

¹³¹ s.32(1)(a), 32(1)(e), and 32(2)(d)

¹³² Ibid section 3

¹³³ Ibid section 2

¹³⁴ Ibid section 3

¹³⁵ Ibid

is a much more flexible method as it reduces the burden of travelling to the office of the commission. The completed application form for permit is addressed to the Secretary and sent to the Commission's headquarters by hand or courier.¹³⁶ In addition to the above, the application form is to be submitted in triplicate paper copies and an electronic version which is to be in Microsoft office format.¹³⁷ The submitted application form will then be processed upon payment of a fund that will not be refundable.¹³⁸ The above process is thereafter evaluated by the Commission and a decision is made as to whether the permit should be issued or refused within three months.¹³⁹

Notably, there are possibilities that an owner of permit may want to generate electricity above its limits to third parties. This development is welcomed as it adds to the existing generated power. This process must however be done with approval when the surplus power exceeds 1MW. In this regard, it is mandatory that the permit holder obtains from the commission a licence for the purpose of generation.¹⁴⁰

It becomes important to point out that in order to regulate the activities around the captive power facilities, the commission is empowered to enter and inspect the premises at their prerogative while annual detailed information is expected to be provided to the commission with respect to environmental issues.¹⁴¹ The above will no doubt guarantee that the terms of permits are used in accordance to the rules where it was granted. In the event of breach of the terms of the grant of the permit, the commission is authorized to penalize a permit holder for violation or to cancel such permit.¹⁴² Thus, for the purpose of enforcement and penalties, the regulation provides that such is expected to align with the relevant section (s.94 (1)) as contained in the Act.¹⁴³

3.6.2.2 NERC Application for Licences Regulations 2010

Licences are vital instruments in the energy industry. This is a crucial step which must be taken in order to begin any operation relating to the market of electricity in Nigeria.

¹³⁶ Ibid

¹³⁷ Ibid

¹³⁸ Regulation for Captive Power Generation section 4

¹³⁹ Ibid section 7

¹⁴⁰ Ibid section 8

¹⁴¹ Ibid section 9

¹⁴² Ibid section 9

¹⁴³ Ibid section 10

Grant of licence no doubt necessitated the introduction of a procedure for making application to the NERC. The introduction of this regulation repeals both the 2006 regulations and the Electricity (Private Licences) Regulations of 1965 which previously covered the same subject matter.¹⁴⁴

The Regulation provides that an application for a licence should be duly authorised by the person applying and written in honour of the commission's chair for onward delivery by hand or other means possible to the head office of the commission.¹⁴⁵

Notably, during the process of submission and for the purpose of processing, fees that will not be refunded is required to be paid.¹⁴⁶ All necessary documents including additional information as requested by the commission are to be submitted within 60 days from the date it was requested otherwise such application shall lapse.¹⁴⁷ In the event that the commission has acknowledged that a proper filing has been done, it is expected of the person applying to publish notices in the public magazines within a period of thirty days at the locality where there is an intention to make use of the licence.¹⁴⁸ The essence of the above is to ensure that there are no objections in connection with the application. Once there are no objections, a licence shall be issued to the applicant.¹⁴⁹ However, in situations where there are objections, such will be considered before an issuance of a licence is made. The Regulation also made provisions for amendment and renewal of licence under regulation 13 and 14 respectively. It is expected that within a period of 9 months before the licence expires, the process of renewing the application should be carried out.¹⁵⁰ It is noteworthy to point out that the grant of a licence is not sacrosanct. Thus, where a complaint is made against any licensee by consumers, such will be investigated for the purpose of determining amongst others whether the licensee can no longer carry out its obligations as contained in the licence's terms and such other incidental codes and rules associated with the exercise of the licence.¹⁵¹ In the above instance, if the Commission is satisfied that any of the above grounds exist, the licence may be suspended. It goes to show that a licensee is expected to comply with existing laws and

¹⁴⁴Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication, p.178

¹⁴⁵NERC Application for Licences (Generation, Transmission, System Operations, Distribution and Trading) Regulations, 2010. Reg. 3

¹⁴⁶Ibid Reg. 6

¹⁴⁷Ibid Reg. 8

¹⁴⁸Ibid Reg. 10

¹⁴⁹Ibid Reg. 12

¹⁵⁰ Ibid Reg. 14 (a)

¹⁵¹Ibid Reg. 16 (a)

policies in carrying out their activities. There are also situations that may warrant the cancellation of a licence. These situations include instances where

- (i) The license is awarded on the basis of error and/or misrepresentation or non-disclosures of any substantive reality;
- or(ii) the licensee has deliberate or unreasonable contravention of any requirements of the Act, the legislation relevant to this law, the Commission's Regulations and Market Rules and Network Codes and Rules.¹⁵²

Thus, if any of the above infractions is found, such will be communicated to the licensee for the purpose of cancelling the licence and the opportunity to make a representation on the notification shall be given.¹⁵³

3.6.3 Rules

3.6.3.1 NERC Business Rules 2006

NERC like every structured organisation carries out its activities according to laid down procedures. In this regard, the need for a rule that will guide its proceeding becomes essential in the birth of the NERC Business Rules 2006. The purpose of this rule is to regulate its proceedings in carrying out its mandates under the law. The rules have been described as an instrument that works like the code of conduct of the NERC.¹⁵⁴ The rules re-emphasized the status of the Commission as a person, in other words it is a company that can sue and be sued and having all the features of a registered company.¹⁵⁵

Notably, it provides that the seal of the commission is of legal importance in validating any transaction of NERC. Thus, all official documents of the Commission must bear the Commission's stamp and the Chairman is expected to carry out certification processes alongside the Commissioner Legal Support and Licensing.¹⁵⁶

The Rules set out to give directions on how meetings of the Commission may be held. Thus, once an affected person has made a complaint, the Commission may commence proceedings through her Secretary who issues a notice for the purpose of receiving replies and rejoinders in support or opposition to the complaint or petition.¹⁵⁷ Thus,

¹⁵²Ibid Reg. 17 (b)

¹⁵³Ibid Reg. 17 (d)

¹⁵⁴Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication p. 161

¹⁵⁵Ibid ; EPSR Act 2005 section 31 (1);NERC Business Rules 2006. Rule 3

¹⁵⁶NERC Business Rules 2006 Rule 5

¹⁵⁷Ibid Rule 10

ensuring an effective hearing, the rule specifies that hearing is to be done in line with the requirements stipulated in the EPSR Act.¹⁵⁸ In its proceedings, it is not necessary that the Commission should follow rules or evidence which are applicable in courts but it may vary the rules to ensure that justice¹⁵⁹ is achieved while giving regard to fair hearing principles and the rules of natural justice. The rules provides that the decisions of the Commission as well as the basis for the decision shall be in writing, sealed with the Commission's seal and signed by the Chairman, Vice-Chairman and other Commissioners who participated in the conduct of the proceedings.¹⁶⁰ There are instances where the decisions may not favour a party. Thus, the Rules further provides for a rehearing and an appeal¹⁶¹ which is consistent with the principles of natural justice.

3.6.3.2 Electricity Industry Market Rules 2010

The Market Rules which has been modified in 2012¹⁶² is made pursuant to section 26 (2) of the Power Sector Reforms Act 2005. The above suggests that the President should act in consultation with the Minister where there is the possibility to have new market rules.¹⁶³The Rules establish a trading system for electricity in Nigeria and provide for the various stages in the operational processes which the Market Rules regulate.¹⁶⁴The Act did not attempt to give a restricted view but rather an optional view on the content to be contained in the market rules when it is dealing with markets for electricity and ancillary services. It may include clauses regulating the establishment and publishing of business regulations; resolution of transactions between various members; authorisation and management of ordering by scheme providers including order imposition on business members; authorisation to engage in the industry of an individual and termination, suspension or limitation of a company's scheme.¹⁶⁵

Notably, a system of trading that guides the electricity market in Nigeria is established by the rules.¹⁶⁶ The rules provide structures to ensure that the electricity market is properly coordinated. This is done in stages which are classified into two forms. The

¹⁵⁸ EPSR Act section 50

¹⁵⁹NERC Business Rules 2006 Rule 17

¹⁶⁰Ibid Rule 21

¹⁶¹Ibid Rule 45

¹⁶²See Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p.288

¹⁶³Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication p.229

¹⁶⁴Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p. 289

¹⁶⁵EPSR Act, subsection (3) (a),(b), (c) and (d)

¹⁶⁶Rule 1.2 of the Market Rules

first, which is the Transitional Stage deals with the contacting and procurement of energy; contracts settlement and energy metering; and System operation and market administration charge collection by the Market Operator.¹⁶⁷ The Medium Term Market represents the second stage which involves trade in energy imbalances; payment of energy and transmission system fees and fees and compilation of energy imbalance energy and business management fees by the business operator.¹⁶⁸ The language of the rules with regards to licence holders shows that it is mandatory for them to comply.¹⁶⁹ This means that all the participants in this regard, licence holders, the Transmission Service Provider, System Operators and Market Operator is considered to have concluded an agreement with each other and themselves to observe and perform the rules.¹⁷⁰ This is to be formally done by the use of a Market Participation Agreement.¹⁷¹In essence, compliance of the obligations is strategic towards achieving a desirable result in the electricity market as derogation from the market rules or the grid codes will not be tolerated.¹⁷² Essentially, the provisions of the market rules and the grid codes which are to be interpreted in a manner that will avoid conflicts have been made to complement one another in the scheduling, delivery and implementation procedures of the Nigerian power scheme and domestic business administration.¹⁷³Oke notes that though the market Rules have been largely untested, the Regulation is important to establish an effective, flexible, clear and reliable retail energy business structure.¹⁷⁴

3.6.4 The Grid Code for the Electricity Industry of Nigeria 2009

The code is the Nigerian power sector legislative standard and instructions. The code's core is to "promote the effective electricity generation and distribution of all transmission system users and TCN itself without discrimination between users and the category of users. (b) Enhance rivalry in the country's electricity generation and distribution."¹⁷⁵The report also includes the daily working processes and values

¹⁶⁷Rule 1.2.1 (a-c).

¹⁶⁸Rule 1.2 of the Market Rules, sub-rule 1.2.2 (a-c)

¹⁶⁹Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication p.230

¹⁷⁰Rule 1.4.3

¹⁷¹Rule 1.4.4

¹⁷²Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p. 290

¹⁷³Rule 1, sub rules 1.5.1

¹⁷⁴Oke, Y. 2021, *Nigerian Electricity Law and Practice*, Princeton Publishing Company p. 290

¹⁷⁵Grid Code for the Electricity Industry of Nigeria 2009, subsection 1.3.2

regulating the creation, servicing and implementation of an efficient, well-coordinated and financial energy transmission system in Nigeria.¹⁷⁶

The above grid code, applies to TCN and users transmission system and as such the software application shall be carried out by the TCN.¹⁷⁷ Thus, the code is specific on parties that can be engaged for the purpose of liability or infractions against the code. In carrying out its duties effectively, it is mandatory for users to not only comply with the code but also TCN by providing the data needed to ensure the effective implementation of the Grid Code.¹⁷⁸ Notably, the code provides that if there are consistent defaulters of the obligations in the code, it could cause user plant, equipment, or apparatus to be disconnected.¹⁷⁹ No doubt, the above shows a deliberate attempt to ensure compliance, however this may prove to be weak as the code is liberal towards those who fail to comply. In effect, consistent failures may be interpreted loosely or at the discretion of those in charge of disconnection and enforcement.¹⁸⁰

It is noteworthy to point out that the code specifically sets the function of the Nigerian Transmission Company. This shows that TCN's responsibility is dualistic in nature as it concerns network and system operations. In effect, TCN is charged with the responsibility to function both as a system operator and transmission service provider (TSP).¹⁸¹ The functions of TCN which are in two phases are outlined below:

(a) As Transmission Service Provider (TSP):

(i) Admit users who fulfil the entry criteria, in compliance with market rules; ii) assess and acknowledge plant contacts; (iii) guarantee the correct measurement at all connection points; (iv) receive from users of the transmission network needed data for appropriate scheduling and transmission network growth activities.

(b) As System Operator:

(i) the transfer of generation units according to this code on the grounds of generating designations at a minimum price; (ii) the acquisition and recovery of

¹⁷⁶Ibid 2009 1.3

¹⁷⁷Ibid 2009 1.4

¹⁷⁸Grid Code for the Electricity Industry of Nigeria 2009

¹⁷⁹Ibid

¹⁸⁰The enforcement is to be carried out by the System Operator in accordance with the rule 46 of the Market Rules guidelines from the Nigerian Electricity Regulatory Commission, Grid Connection Agreement and relevant industry Rules and Regulation.

¹⁸¹Oke, Y. 2013. *Nigerian Electricity Law and Regulation*, Law Lords Publication p.229

- expenses of the acquisition of the ancillary services; (iii) the handling of accidents in the Power system and the restoration of the Power System;
- (iv) the performance of demand forecasts;
- (v) the coordination of the generation and transmission of offers;
- (vi) monitoring the user equipment is tested and monitored for its Grid Code adherence.
- (viii) reporting planned and scheduled action and unintended incidents such as network user and regulator defects
- (ix) System testing procedures related to the network.¹⁸²

In carrying out the above roles, it is expected that TCN will ensure that it follows all the procedures laid out in the code and in cases where there are disputes, it will be treated under the laws and laws of the appropriate sector authorized by NERC.¹⁸³

3.7 STATUTORY OBLIGATIONS OF THE ELECTRICITY COMPANIES

Legal obligations have been defined in the previous chapter as those legal conditions to be complied with by the law participants.¹⁸⁴ The legal mandate to make laws for the Nigerian energy sector is provided under the 1999 Federal Republic of Nigeria constitution (as modified) which stipulates “that both upper legislative houses can, respectively, create legislation for any portion of the Federation including the State.”¹⁸⁵ It is therefore important to point out that these obligations are necessary for an effective monitoring of supply related activities in the electricity industry. The constant supply of electricity to consumers no doubt will trigger stability in the electricity industry in Nigeria.

Obligations of the electricity companies are written rules that are to be determined by those at the helms of affairs in the Nigerian Electricity Regulatory Commission. These obligations are indeed necessary for the smooth operation of business activities by all stakeholders. The legal obligations to supply electricity are in two forms namely: The statutory obligation to supply electricity and the contractual obligation to supply electricity. The contractual obligations are usually developed by parties and

¹⁸² Grid Code Rule 1.5.1 (a) – (b)

¹⁸³ Ibid 11.10

¹⁸⁴ Stanford Encyclopaedia of Philosophy <https://plato.stanford.edu/entries/legal-obligation/> accessed on 23rd October 2017

¹⁸⁵ Part II, Item 13 and 14 Concurrent Legislative List of the Constitution of the Federal Republic of Nigeria 1999 (as amended)

stakeholders in the course of entering into business agreements. It is therefore necessary that effective legal obligations in this regard will be present in any of the license that permits the companies to begin business activities, Power Purchase Agreements, Vesting Contracts or such other documents as may have been agreed by parties. The essence of the legal obligations is to ensure that activities that relates to purchase and supply of electricity are carried out in line with best practices and as agreed by parties and stakeholders. This is important so as to prevent deliberate sabotage and poor handling of facilities that may tend to disrupt the supply chain of electricity thereby causing instability in the supply of electricity.

An illustration can be drawn from the cases of *Barr. Mike Kpemi v Benin Electricity Distribution Company Plc*¹⁸⁶ and *Jos Electricity Distribution Company v John*.¹⁸⁷ In the former, the court relied heavily on the decision of the Court of Appeal in the latter case in arriving at the decision that the distribution company offers public service to the populace and has a public duty to discharge because its service to the people is not contractual.¹⁸⁸ Furthermore, the court in the case of *Jos Electricity Distribution Company v John*¹⁸⁹ held that the distribution company is not a mere private enterprise and that by sections 63 and 67 of the EPSR Act, the Appellant is under statutory duty to connect customers for the purpose of receiving the supply of electricity subject to terms and conditions as the commission may fix in its license.¹⁹⁰

The above reflects the positions and reflections of the court with regards to issues of statutory and contractual obligations which important to the development of this thesis.

3.8 Implementation of Statutory Obligations: The Roles of the Regulator and the Court

3.8.1 Introduction

It is important that an effective sector regulator creates an equal operational platform for all industry players. This task has been placed on NERC who serves as the industry regulator. It aims to ensure power safety and viable electricity by enforcing the rules

¹⁸⁶Unreported, Suit No.: AK/94/2019

¹⁸⁷(2018) LPELR-46395(CA)

¹⁸⁸Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p. 603

¹⁸⁹(2018) LPELR-46395(CA)

¹⁹⁰Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p. 603

and legislation.¹⁹¹ The above significantly emphasises the critical nature of the task expected of a regulator, which in this case is NERC.

In the course of carrying out duties in this regard, there is bound to be disputes. These disputes are expected to be resolved through the processes of mutual settlement regarded to as Alternative Dispute Resolution mechanisms. In the event that this mechanism fails, the last resort is to seek remedy in the court of law. Law court therefore stands as the last option used in dispute settlements which arises in the electricity industry among parties and industry players.

Therefore, it is essential to look at the roles of NERC as it concerns its function as a regulator.

3.8.2 The Role of NERC

The role of NERC in the electricity industry as a sector regulator is confined under the EPSR Act. Thus, the law ensures that responsibilities are duly spelt out under its objects and functions. Thus, these include:

- (a) the establishment, promotion and maintenance of effective industrial and market structures, and ensuring ideal use for the supply of energy resources;
 - (b) the improvement by encouraging customer links to distribution systems in both rural and urban regions of access to energy services;
 - (c) ensure that the consumer has adequate electricity supply;
 - (d) ensure price rates charged by licensees are fair to consumers and are adequate to enable licensees to finance their businesses and provide for reasonable revenues in order to operate efficiently;
 - (e) ensure security, safety, confidence or the quality of the electricity service produced and supplied.
- (2) The Commission shall conduct the following tasks for the purposes of furthering subjects as referred to in subparagraph (1) of this Section:
- (a) promoting competition and the involvement of the private industry where and whenever possible;
 - (b) establishing or where applicable approving suitable operational codes and safety, security, reliability and standard quality;

¹⁹¹EPSR Act 2005 section 31

- (c) license and regulate individuals involved in power generation, transmission, system operation, distribution and trading;
- (d) approve market rules amendments;
- (e) supervise electrical business operations and
- (f) carry out those other operations needed to implement.
- (g) create suitable customer rights and responsibilities in relation to the provision and usage of electric services.¹⁹²

The above shows that NERC as a regulator is bound by its responsibilities as a motor space for efficient leadership of the laws, directives, guidelines and aims of the sector. They are therefore to be seen as the official watchdog of the electricity industry in the process of managing their affairs and activities.

In particular, this also demonstrates that NERC performs supervisory tasks of quality control to comply with established norms. It also guarantees that energy rates are suitable for service quality without exerting undue stress on electricity users.¹⁹³

3.8.3 The Role of the Court

The Court is accountable for day-to-day judicial administration in Nigeria. It is thus accountable for settling conflicts arising in Nigeria's electricity sector. The dispensation of justice has however over time, proved to be slow and sometimes costly for litigants in the country. It is therefore not surprising that the attitude of the stakeholders in the electricity industry is to favour the alternative dispute resolution mechanisms before the court is approached. Notably, there have been established guidelines for the purpose of dispute settlement by NERC which is to underscore the fact that consumers' interests should be a matter of concern. No doubt, the essence of the above is to ensure that disputes are managed and settled amicably between parties before the court is considered.

Given the above positions, it is important to point out that as regards court related dispute resolution in Nigeria, *Amadi v Essien's* case¹⁹⁴ is of particular interest. This is borne out of the fact that it is a key authority in the electricity industry that deals

¹⁹²EPSR Act section 32 (1) (a)-(g), (2) (a)-(g)

¹⁹³Oke, Y. 2016. *The Pathway to Energy Liberation in Nigeria: Lessons for Namibia* published in Essays on Nigerian Electricity Law, Princeton and Associates. p.15

¹⁹⁴ [1994] 7 NWLR 91

directly with consumer satisfaction. It is therefore important to consider the court's decision in the above authority vis a vis current regulatory regime which began in 2005 bearing in mind that the case was premised on the regime that was in operation before the emergence of the EPSR Act of 2005.

3.8.3.1 The Case of *Amadi V Essien*

The case of *Amadi v Essien*¹⁹⁵ did not get to the apex court and as such the decision of the court of appeal becomes a precedent for lower courts. The facts of the case is that the Plaintiff/Respondent had sued at the High Court and claimed damages against the Defendants/Appellants for "disagreement, turmoil and disgust" caused by the 1st to 5th Appellants as agents of NEPA (The 6th Defendant/Appellant).¹⁹⁶ The Appellant contended that the Plaintiff/Respondent was disconnected twice for different reasons. The first was for non-payment of arrears (D.N.P) and the second was for disconnection pending investigation (D.I.P). The Appellants equally contended that assuming without conceding that the disconnection was wrongful, they were not liable to pay damages in view of Section 12 of the NEPA Act.¹⁹⁷ They further contended that the Plaintiff/Respondent was a mere occupier of the premises who has no contractual relationship with the Appellants.¹⁹⁸ This was based on the fact that the meter installed on the Respondent's premises was registered in the landlord's name and not the Respondent's.

At the High Court, a decision was made for the benefit of the plaintiff, and awarded damages in the sum of N78,000.00 (Seventy Eight Thousand Naira) against the Appellants. The Appellants were unhappy about the decision and thereafter initiated an appeal process. In its resolution, the court examined the relevant section of the Electricity Act such as sections 1(1) and 12(1) and (2) and 4(b) of the NEPA Act.

In the determination of the above issues,¹⁹⁹ the Court,²⁰⁰ emphasized that it is not in every circumstances that no close link is seen between the plaintiff and the defendant that an action cannot be founded. The Court went further to state that though a

¹⁹⁵ Ibid

¹⁹⁶ Ibid

¹⁹⁷ Ibid

¹⁹⁸ Ibid

¹⁹⁹ The Court unanimously dismissed the Appeal. Per Niki Tobi JCA (as he then was) delivered the leading judgment; Achike JCA and Akitan JCA delivered concurring judgments.

²⁰⁰ Per Niki Tobi JCA (as he then was)

relationship may not be contractual, the law may infer implied undertaking on the defendant not to injure the plaintiff.²⁰¹ It was on the above position that the Court of Appeal opined that being a disclosed principal, the plaintiff had the right to sue on a contract made on his behalf. Thus, the learned justice of the court aligned his thought to the fact that the Plaintiff was a disclosed principal of the electricity customer and the electricity producer had constructive notice of this fact. The Court stated that the evidence that the Appellant had dealings with the respondents in respect of electricity supply to his house is overwhelming, and as a disclosed principal, he has standing to sue.

In this regard, Oke observes that the reasoning of the Court is reasonably justifiable considering the issues surrounding the matter and the need to do substantial justice.²⁰² No doubt, as Oke further points out, the landlord is the owner of the premises and is best assumed the principal. The tenant remains in occupation of the premises for a period of time as agreed between him and the landlord.²⁰³ Thus, where electricity bills are settled by such an “unregistered consumer”, the only reasonable inference to draw is the existence of a sub-contract that makes the tenant an agent of the landlord for the purpose of paying electricity bills.²⁰⁴

Regrettably, the words “customer” and “consumer” were not clearly defined in the erstwhile electricity laws. However, under the EPSR Act, the words were given express unambiguous statutory definitions. As such, a repeat of the misconception in *Amadi v Essienis* unlikely under the new regime.

The Court's opinion on section 12(2) of the NEPA Act is vital as it posits that:

“In no way is the Authority obliged, through any suspension, failure, discontinuance, or whatever partial or wholesale disruption of the supply of electricity, to compensate or compensate for loss, harm or discomfort caused to any customer.”²⁰⁵

In this regard, the Court unanimously affirmed the immunity of the electricity provider from legal actions by the electricity consumer. This has proved to be fatal to the rights of consumers. The Court points out that:

²⁰¹ *Amadi v. Essein (Supra)* at 117 paras C-D

²⁰² YemiOke, 2013. “*Electricity Law and Regulation: Why Amadi v Essein is a dangerous precedent for the protection of rights of electricity consumers in Nigeria*” Law Lords Publication

²⁰³ Ibid

²⁰⁴ Ibid

²⁰⁵ Section 12 (2) Nepa Act

“Considering the consumer’s perspective, section 12 (2) is a complete blockade or embargo as far as payment of damages or compensation is concerned”²⁰⁶

Furthermore, the court also observes that:

“It is manifest that the provisions of section 12 (2) are very expansive. They clearly erect an impregnable immunity in favour of the appellants for discontinuance of the supply of electricity however caused. This is another way of saying that their immunity from liability in this regard embraces damage or loss which arises in whatsoever manner”²⁰⁷“The provision of Section 12 (2) of NEPA exempts NEPA from any liability or damages resulting from the disruption of its electric power supply to its clients for the losses, damages or inconvenience caused thereby. ... The appellants are not liable to payment of damages awarded by the trial court”²⁰⁸

The above represents the obvious injustice that was created by the provisions of the law with regards to liabilities of the electricity providers. It reveals that the issue of consumer protection was not appropriately considered in the previous regime. This no doubt represents a call for an amendment. The interpretation of the section no doubt, did not go down well with the learned Justice as such, he points out that by berating the immunity but failed to deploy judicial activism in the face of apparent injustice. He opines thus:

“Let me say one last word on Section 12 (2) of NEPA, a provision which has given rise to the judgment I have delivered. It is a most obnoxious law and oppressive provision which is inimical to the advancement of the rule of law. No democracy worth its name should feel happy with this provision. I am not happy, the judge that I am in the enforcement of the rule of law in our cherished democracy. As I indicated above, I do hope the National Assembly will expunge the subsection from the Act... The immunity clause should be expunged. This is not the work of the Court. It is for the legislature. Let the National Assembly take up the assignment. That will be good for all customers. As it is, NEPA looks like a sacred cow. Nobody can touch it. And this is bad not only for the consumers but for the general public.”²⁰⁹

The above sentiment is shared by Oke, who considers that though the immunity is obnoxious and unjustifiable, the Court of Appeal should not have gone ahead to ‘dignify’ a bad law.²¹⁰ He observes further that the immunity accorded the electricity

²⁰⁶ Per Tobi JCA (as he then was) at p. 120, para G-H

²⁰⁷ Per Achike JCA at p. 123, para F-G

²⁰⁸ Per Akintan JCA at p. 125-126, para H-A

²⁰⁹ Per Tobi JCA (as he then was) at pp. 120 para H and 121-122, paras H-A

²¹⁰ Yemi Oke, 2013. “*Electricity Law and Regulation: Why Amadi v Essein is a dangerous precedent for the protection of rights of electricity consumers in Nigeria*” Law Lords Publication p.6

provider, NEPA, was erroneously held absolute and that the law qualified the immunity in the said section.²¹¹ He opines that the correct interpretation of the said Section 12 which ought to be the position of the law is that the statutory immunity was restricted to discontinuance of electricity supply when “performing inspections and making fresh links” and no further.²¹² In essence, the fair, just and correct interpretation of the conjunctive interpretation of section 12 (1) and (2) as it concerns repealed *NEPA Act* is “where there is discontinuance of electricity supply due to inspection, tests, repairs and making new connections, NEPA will not be liable under any obligations arising from such discontinuance to compensate any consumer for destruction, injury or discomfort.”²¹³

It is therefore necessary to state that the Court should have avoided such apparent technicalities which hindered it from dispensing justice to the litigant in the circumstances. Notably, the Court ought to have averted its mind to the dictum of Honourable Justice KayodeEso that “The Court should ensure that it does not sacrifice justice on the altar of technicalities.”²¹⁴

From the above, the problems raised by the case of *Amadi v Esseini* has been curtailed to an extent by the *EPSR Act* as well as further decisions of the Courts. This is notably reflected in *Godwin Ugwuanyi c. Nikon Insurance Plc's*²¹⁵ latest judgment of the appellate court.

In the above case, an employee of NICON was wrongly dismissed by NICON Plc. He filed an action in court but failed to file a pre-action notice to NICON as required by the NICON Act. His argument was that since NICON has been privatised and registered as accompany under the relevant company laws²¹⁶, there is no need for a pre-action notice to be filed to NICON. The Court held *inter alia* that as long as the law is still in existence, the provisions of the law establishing NICON in relation to NICON are still extant and subsisting. Notably, the Court observes that:

“However, it is my opinion that this status stays in existence as long as the Act is not abolished. It must therefore be pointed out

²¹¹Ibid

²¹²Ibid

²¹³Ibid

²¹⁴*Chinwendu v. Mbamali (1980) 3-4 S.C. 31*

²¹⁵*Godwin Ugwuanyi v. Nikon Insurance Plc (2013) All FWLR (Pt. 686) 482; (2013) 11 NWLR (Pt. 1366) 546*

²¹⁶Companies and Allied Matters Act (CAMA) Cap C 20, Laws of the Federation of Nigeria, 2004

that NICON's submission that, as a commercial venture with private equity interest in its capital stock, NICON was duly privatised to a tune of 51 per cent and thus shun its status under the NICON Act, as one of the implications of NICON being recorded under the CAMA. This claim cannot be considered to have overridden NICON as registered under the NICON Act as the proposal, however unquestionably, has not overlooked the fact that the Nigeria National Insurance Corporation Act, the Enabling Act, has not been abolished in the sense that the NICON Act has been completely removed from our compendium. It remains eradicated, but NICON is considered registered in accordance with Section 7 of the Act on Insurance.²¹⁷

The above therefore suggests that once a public entity becomes privatised and the enabling statute is yet to be repealed, the private company enjoys the right and privileges of the public entity as stated in the enabling legislation. However, once a statute has been repealed by the legislature, the rights and privileges hitherto enjoyed shall cease.

The effect of the above law can be viewed in relation to the electricity laws past and present in Nigeria. Thus, the Electricity Act was expressly abrogated in section 99 of the Electricity Reform Act²¹⁸ and the *NEPALaw*.²¹⁹ It therefore follows that the bad precedent of the Court in *Amadi v. Essein*²²⁰ may no longer be followed, as the law which the case sought to interpret has been repealed. It has been suggested that the effect of repealing a statute is to render the repealed statute dead and non-existent in law;²²¹ and like a dead person, it cannot be revived.²²² The above positions have therefore shown that the current regime by virtue of the abrogation of the erstwhile law has cleared the issues raised by the case of *Amadi v. Essien* through legislative intervention earlier canvassed by the Court.

²¹⁷ Per Christopher Mitchell Chukwuma-Eneh, J.S.C. (Delivering the Leading Judgment)

²¹⁸ *Electricity Act* Cap. E7, L.F.N. 2004

²¹⁹ *National Electric Power Authority Act* Cap. N33, L.F.N. 2004

²²⁰ [1994] 7 NWLR 91.

²²¹ P. EhiOshio, "Effect of repeal of a statute on contract of employment with statutory flavour: *Idehen v. University of Benin*", Journal of Commercial, Private and Property Law, Rivers State University of Sciences and Technology, Nigeria, p. 19-29. Available online at <<http://www.nigerianlawguru.com/articles/labour%20law/EFFECT%20OF%20REPEAL%20OF%20A%20STATUE%20ON%20CONTRACT%20OF%20EMPLOYMENT.pdf>> accessed on 10th September 2018

²²² In *Onagoruwa v IGP* (1991) 75 NWLR, (Pt. 193) 593, it was held that a repealed statute is dead and cannot be saved or salvaged by the Court. Also, in *Madumere v Onuoha* (1999) 8 NWLR (Pt. 615) 422, it was held that repealing a statute is to obliterate it from the records of the parliament as if it had never been passed.

This chapter examines the statutory obligations for availability in Nigeria of constant electricity. It was noted that the laws provide for commitments which are essential to ensure a stable electricity supply. In this regard, an attempt was made to trace the statutory powers for the regulation of electricity to the 1999 Nigerian constitution as amended. This shows that the duo of state and federal authorities have legislative control on energy in Nigeria. This no doubt leaves the state government without power to legislate in circumstances where the federal government has made laws on electricity as seen in the enactment of the EPSR Act 2005.

This chapter progressed by analysing the legal framework in the electricity industry. An attempt was made to review the past and present issues in the Nigerian energy industry that includes energy support from neighbouring countries, the different sources of energy for utilisation and the energy flow. This was followed by an analysis of relevant subsidiary regulations such as rules and codes governing electricity in Nigeria. Those considered for analysis include Captive Power Regulation 2008, NERC Application for Licences Regulations 2010, NERC Business Rules 2010 and The Grid Code for Electricity Industry of Nigeria 2009.

This chapter concludes by reviewing the role of the court and the regulator in the implementation of statutory obligations. Notably, it was conceived that the court is an important aspect with regards to ensuring full compliance with obligations imposed on the different stakeholders. In this regard, NERC who serves as the key regulator becomes important as they are responsible for referring those matters to the court where applicable.

CHAPTER FOUR

RESULTS AND DISCUSSION OF FINDINGS

4.1 INTRODUCTION

In this chapter, the results and research findings are presented in this chapter. This would include tables, figures and other illustrations.

4.2 RESEARCH FINDINGS

In the course of these research activities, it became necessary to reach out to some established institutions to conduct investigations with regards to specific areas in the electricity sector. In this regard, useful results were achieved which aided the completion of this research. This will be considered below.

It is considered that there are indeed legal obligations that mandate electricity companies to ensure constant supply of electricity. These are found in the Electric Power Sector Reform Act (EPSRA) 2005²²³ and specifically in the Sales Agreements (PPA) signed with the Bulk Trader (NBET) Plc. Furthermore, these legal obligations are contained in the licences granted to the electricity companies and in their terms and conditions while others are found generally in the regulations, directives and orders made from time to time by NERC. In this regards, it was observed that the regulators are not doing badly, while the capacity to have uninterrupted power supply have not been reached. As such, the mandates given by the legal obligations have been utilised to the extent that there are certain level of electrification in Nigeria. The legal obligations as earlier noted in the previous chapters are also considered by NERC in the process of licensing. Thus, the power to issue and review licence constitute a mandate of the regulators in this aspect. This aspect becomes important as it becomes an avenue that can be used to sanction defaulters in the aspect of availability of electricity either through generation or distribution. Sanctions available in this regard include name and shame, imposition of fines²²⁴, suspension, cancellation and

²²³This can be found under section 64 to section 68.

²²⁴We see that playing out severally with NERC v IBEDC as reported NERC fines IBEDC 50 million naira <http://www.nercng.org/index.php/media-library/press-releases/525-nerc-fines-ibedc-n50-million> assessed on 23rd September 2018 and also in *Ibadan Electricity Distribution Company Plc (IBEDC) & 8 Ors v Nigerian Electricity Regulatory Commission* FHC/ABJ/CS/665/18 which was a case involving a suspension order given by NERC over a 6 billion naira virement in which it had mandated IBEDC to dissolve its Board of Directors

withdrawal of licence. However, a gap exists as regards the sanctions that can be imposed on the regulators. The only available option here is for the federal government to sack the affected officers which is not an act that is common with the government. Notably, no law can cover all the fields which implies that loopholes are bound to emanate in the course of time. Thus, even though the law is useful towards ensuring constant availability and provision of electricity in Nigeria, to an extent law may give way to demand and supply forces since the country runs a market economy.

In essence, it is considered that law can be used to ensure that there is adequacy by observing the various loopholes and making recommendations to the legislature for amendments.

Table 4.1 illustrates the roles that the major structures play in the electricity industry.

Table 4.1: Obligations of licensed companies²²⁵

OBLIGATIONS OF LICENSED COMPANIES			
Companies	Obligations	Regulators	Effects of sanctions
Generation	<ul style="list-style-type: none"> a. Construct, own, operate and maintain generation station b. Sell power to classes of persons 	NERC, NEMSA, SON	Mild, strict accountability to enable stiffer penalties
Transmission	<ul style="list-style-type: none"> a. Grid construction, operation and maintenance of TS b. SO, Gen. Sched, Trans. Sched, Trans Cong. mangmt 	NERC, NEMSA, SON	Mild, strict accountability to enable stiffer penalties
Distribution	<ul style="list-style-type: none"> a. Construct, operate and maintain dis. syst./facilities (including but not limited to connecting customers for supply) installation of meters, billing and collection b. Provide electricity to its distribution customers. 	NERC, NEMSA, SON, CPC	Mild, strict accountability to enable stiffer penalties

Source: Compiled from EPSRA 2005 “Original” 2018

²²⁵ These are found under ss 64 to 68 of the EPSR Act 2005

4.3 COMPARATIVE ANALYSIS OF ELECTRICITY LAWS OF NIGERIA AND SOUTH AFRICA

In this section, an attempt will be made to discuss the laws governing electricity in South Africa and Nigeria. This will involve a comprehensive analysis of the legal framework governing electricity in South Africa and Nigeria.

South Africa has boundaries with, Namibia, Mozambique, Lesotho, Botswana, Zimbabwe and Swaziland located in the Southern portion of the mainland of Africa.²²⁶ It is a country whose economy thrives on the use of energy. It has certainly been regarded as African continent's most advanced country.²²⁷ Considerably, this is considered in terms of its growth rate which is above 4%.²²⁸

The country's supply industry in terms of Electricity (ESI) is majorly controlled by Eskom which is controlled by the country.²²⁹ It stands seventh in the globe in terms of volume and power revenues and provides approximately 96% of energy needs in South Africa.²³⁰ Eskom owns and controls the elevated voltage distribution system that provides 60% direct energy to clients while the short fall in terms of distribution is done by local authorities.²³¹

From 2007 to 2008 South Africa has had a major power supply problem with large cargo shedding that has caused blackouts. This caused severe economic destruction and has led to the loss of around 50 billion (roughly 5 billion USD) during the recession by the South African National Energy Regulator (NERSA).²³² The recession was notably explained by many feasible factors, including the absence of electricity production and electricity reticulation capability and absence of studies on electricity and energy issues generally.²³³

²²⁶ Border Control Operational Coordinating Committee, Republic of South Africa

<http://www.borders.sars.gov.za/neighbouring-country%5Cindex.html> accessed on 12 April 2018

²²⁷ Inglesi R. 2010. *Aggregate Electricity Demand in South Africa: Conditional forecasts to 2030*, Applied Energy 87 pp. 197–204

²²⁸ Ibid p. 197

²²⁹ Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 1

²³⁰ Ibid

²³¹ Ibid

²³² Blignaut J, Inglesi-Lotz R, Weideman J.P. 2015. *Sectoral Electricity Elasticity in South Africa: Before and after the Supply Crisis of 2008*. S Afr J Sci.;111(9/10), Art. #2014-0093, 7

pages.<http://dx.doi.org/10.17159/sajs.2015/20140093>

²³³ Ibid

Specifically, South Africa's electricity history is closely related to that of the United States.²³⁴ In this regard, Vosloo *et al* point out that "...On 1 September 1882, 3 days before the start of the first gas fired station at Kimberley [South Africa], the first street light on the African continent had been switched on."²³⁵ Meanwhile, hydro-electric technology, on the other hand, arrived on the African continent a few short years later.²³⁶

Notably, the engineer that constructed the Hydropower Station of the Niagara Falls first visited the Victoria Falls in Southern Africa.²³⁷ The electricity generation potential of Victoria Falls impressed him, as although Niagara Falls and Victoria Falls were essentially equal in width, Victoria Falls was spectacularly twice as tall. He was able to factor out difficult logistical and structural differences between the two power schemes and making the Victoria Falls project feasible while making use of high voltage alternating current technology. Subsequently, he applied for a license in 1901 to establish a hydroelectric scheme to exploit the power of the Victoria Falls along the Zambezi river and was granted same.²³⁸ The reality that minerals and valuable metals were found in Southern Africa in early 1800s together with the required mining activities was at the heart of the country's wide supply for electricity.²³⁹ The above no doubt represents the entrance of heavy power plants in the mining industry.²⁴⁰ Grover and Pretorius go as far as to maintain that "South Africa was a power-powered country, with mining – an economic core – a strong basis to develop a company's energy facilities. Eskom was established in 1921 to ensure a ready energy market..."²⁴¹ It is therefore not surprising that both industries depended upon one-another for growth in the early years.

²³⁴ Moeti, K. 2013. *The role of Government in ensuring an affordable supply of electricity in South Africa: Challenges and Future prospects*, Journal of Public Administration vol 48 p. 335

²³⁵ Vosloo, H. Naidoo, P. Van Heerden, L. Nel, W. Smit, I. 2008. *Sustainable Energy: Some of the issues that need to be considered*. Discourse; 36(1).

²³⁶ Moeti, K. 2013. *The role of Government in ensuring an affordable supply of electricity in South Africa: Challenges and Future prospects*, Journal of Public Administration vol 48 p. 335

²³⁷ This is in reference to Professor George Forbes in 1895

²³⁸ Vosloo, H. Naidoo, P. Van Heerden, L. Nel, W. Smit, I. 2008. *Sustainable Energy: Some of the issues that need to be considered*. Discourse; 36(1).

²³⁹ Moeti, K. 2013. *The role of Government in ensuring an affordable supply of electricity in South Africa: Challenges and Future prospects*, Journal of Public Administration vol 48 p. 335

²⁴⁰ In fact it is widely accepted that many of the first power plants in the country were built primarily to provide support to the mining industry (Lennon 2007; Grover and Pretorius 2008).

²⁴¹ Grover, H.K. and Pretorius, M. W. 2008. *The technology assessment of demand side bidding in the South African context*. South African Journal of Industrial Engineering 19(2).

Eskom has been providing power to other industries of the economy and of culture since its founding in 1921.²⁴²In fulfilling its responsibilities, the Victoria Falls Power Company took a significant step forward on its 1948 acquisition.²⁴³Eskom has since become the biggest power provider and manufacturer of energy in Africa, responsible for 95% of the country's energy and nearly half of the continent's energy produced.²⁴⁴Today, 26 energy plants with a complete operating capability of over 42,000 megawatts and a complete energy supply network of 359,854 kilometres serving roughly 32,000 workers are owned and operated by the business. Eskom is therefore not only claiming to be one of the world's five largest electricity companies but also one of the world's lowest energy cost producers.²⁴⁵

In this chapter, the major focus will be to highlight and discuss the relevant laws in the South Africa electricity industry. This is important as it helps to put in perspective the strengths and weakness of the South Africa laws viz a viz that of its Nigerian counterpart. The above will be achieved alongside the consideration of the extent of security of electricity supply considering the sources of energy within the country. Notably, the roles of the regulatory body charged with regulating the energy sector should be considered alongside South Africa's laws that govern electricity. The chapter will conclude with a relative summary of Nigerian and South African energy legislation.

4.4 THE SOURCES OF ENERGY IN SOUTH AFRICA

The South African economy is structured on several sources of energy ranging from coal, nuclear energy, hydro, gas and others. The above sources are the main energy suppliers in the country. Notably, in South Africa, coal constitutes the major contributor among the sources of electricity supply and is considered as one of the major country exporting coal.²⁴⁶In 2014, coal's percentage in main energy use was 70%, whereas 92% of the energy output in the country is focused on native carbon

²⁴²Moeti, K. 2013. *The role of Government in ensuring an affordable supply of electricity in South Africa: Challenges and Future prospects*, Journal of Public Administration vol 48 p. 336

²⁴³Moeti, K. 2013. *The role of Government in ensuring an affordable supply of electricity in South Africa: Challenges and Future prospects*, Journal of Public Administration vol 48 p. 336

²⁴⁴Lennon, S. 2007. *Electricity supply in South Africa*. Discourse; 35(2)

²⁴⁵Grover, H.K. and Pretorius, M. W. 2008. *The technology assessment of demand side bidding in the South African context*. South African Journal of Industrial Engineering 19(2).

²⁴⁶Nikki Fisher and Gina Downes, IEA report on South Africa

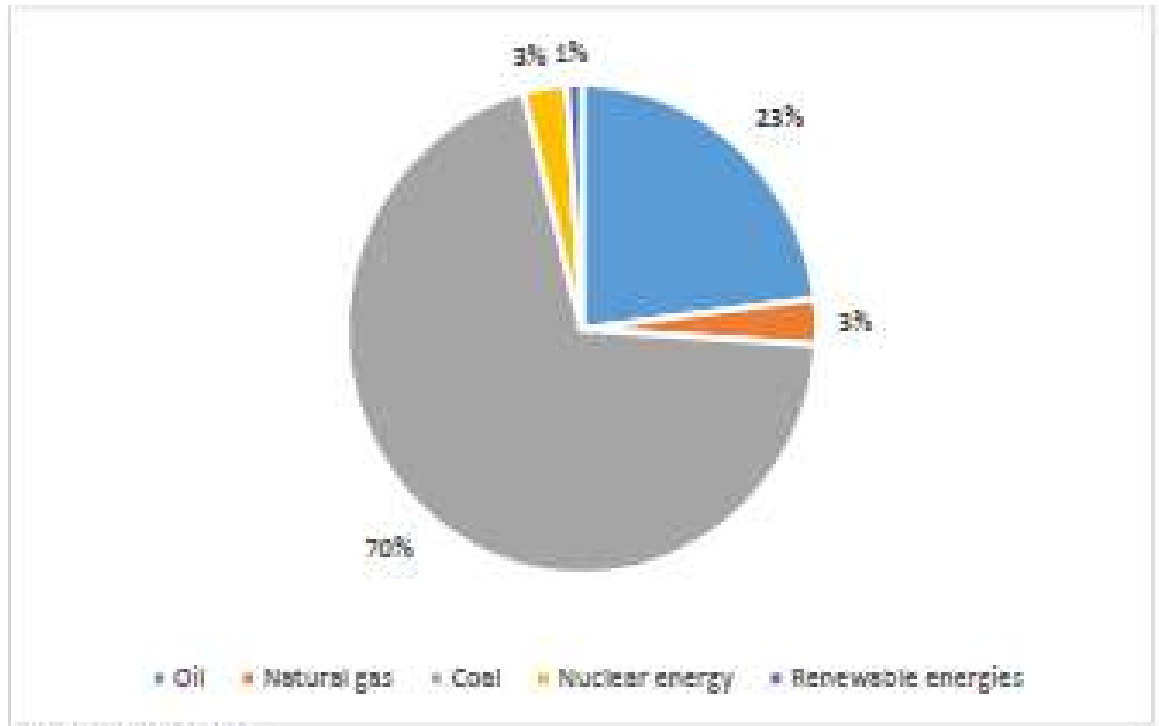
http://www.iea.org/ciab/South_Africa_Role_Coal_Energy_Security.pdf accessed on 7th August 2018

manufacturing.²⁴⁷ In this regard, it is therefore safe to posit that coal is important in the South Africa energy sector. A narrative on South Africa coal will now be briefly considered.

4.4.1 Coal

Notably, the country's coal consumption is huge. In 2014, complete main power usage was reported to be 181 Mtce. This is represented below in figure 4.1 as compared to other energy sources.

²⁴⁷ Ibid



Source: DMR, 2015

Figure 4.1: South Africa Primary Energy Consumption²⁴⁸

²⁴⁸Department of Mineral Resources (DMR) (2015) South Africa's Mineral Industry 2013/2014. DMR Praetoria

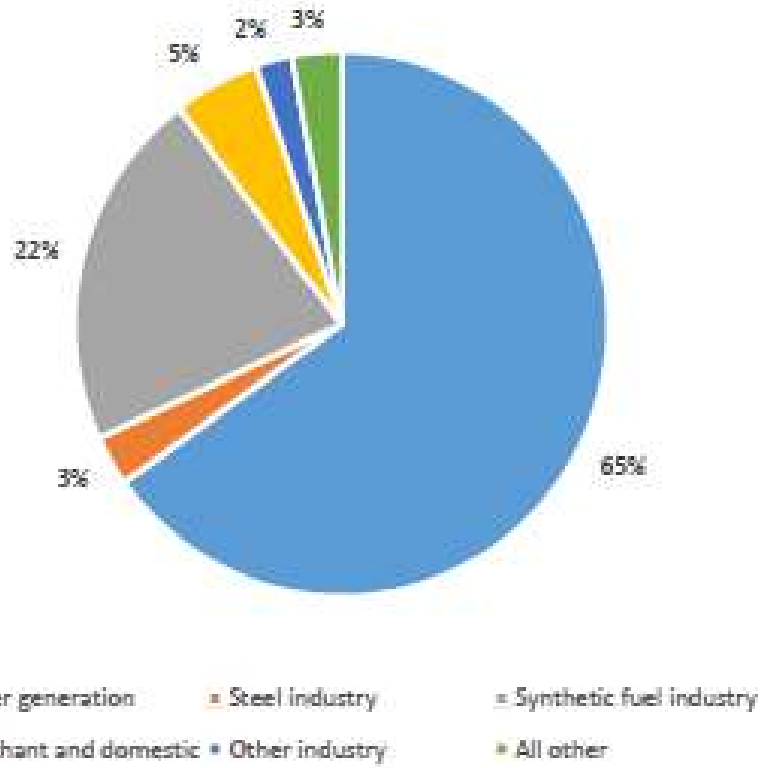
Figure 4.1 indicates that carbon has an important part to perform in South Africa's power industry. The above notwithstanding, the other sources have useful roles to play as they also contribute strategically to the energy mix. Notably, the coal supply is projected to be 66.7 trillion tonnes in South Africa.²⁴⁹ It must be stressed that coal cannot be undermined in the electricity sector. This is premised on the fact that efforts had earlier been put in place so as to put in place mechanisms that will sustain consistent availability of coal in ensuring that the power stations continues to function in that regard. These power stations as it were operate on long term basis with regards to agreements with the supply of coal ranging from 10 to 40 years. Notably, the current fleet of power stations has life duration of close to 40 years. This explains the importance of having an agreement for the supply of coal that will meet up with that period. It is therefore necessary that all efforts must be put in place to prevent coal short falls as this will cause a break in the security of supply with regards to electricity.²⁵⁰

Considerably, the electricity sector enjoys high consumption of coal with an estimate of about 65.1%.²⁵¹ This is shown in figure 4.2.

²⁴⁹ Nikki Fisher and Gina Downes, IEA report on South Africa
http://www.iea.org/ciab/South_Africa_Role_Coal_Energy_Security.pdf accessed on 7th August 2018

²⁵⁰ Ibid

²⁵¹ Ibid



Source: DMR, 2015

Figure 4.2: South Africa Coal Consumption²⁵²

²⁵²Department of Mineral Resources (DMR) (2015) South Africa's Mineral Industry 2013/2014. DMR Praetoria

Figure 4.2 significantly shows that even though coal serves other purposes locally, its impact in power generation is huge and as such it is not surprising that efforts are constantly being made to invest in coal supply infrastructures. Notably, the traditional method that has been adopted by South Africa is to ensure that power stations are located at regions close to the source of the coal. This will no doubt enable easy access to coal and reduce the cost of transportation and infrastructure. The South Africa coal field is depicted in figure 4.3.

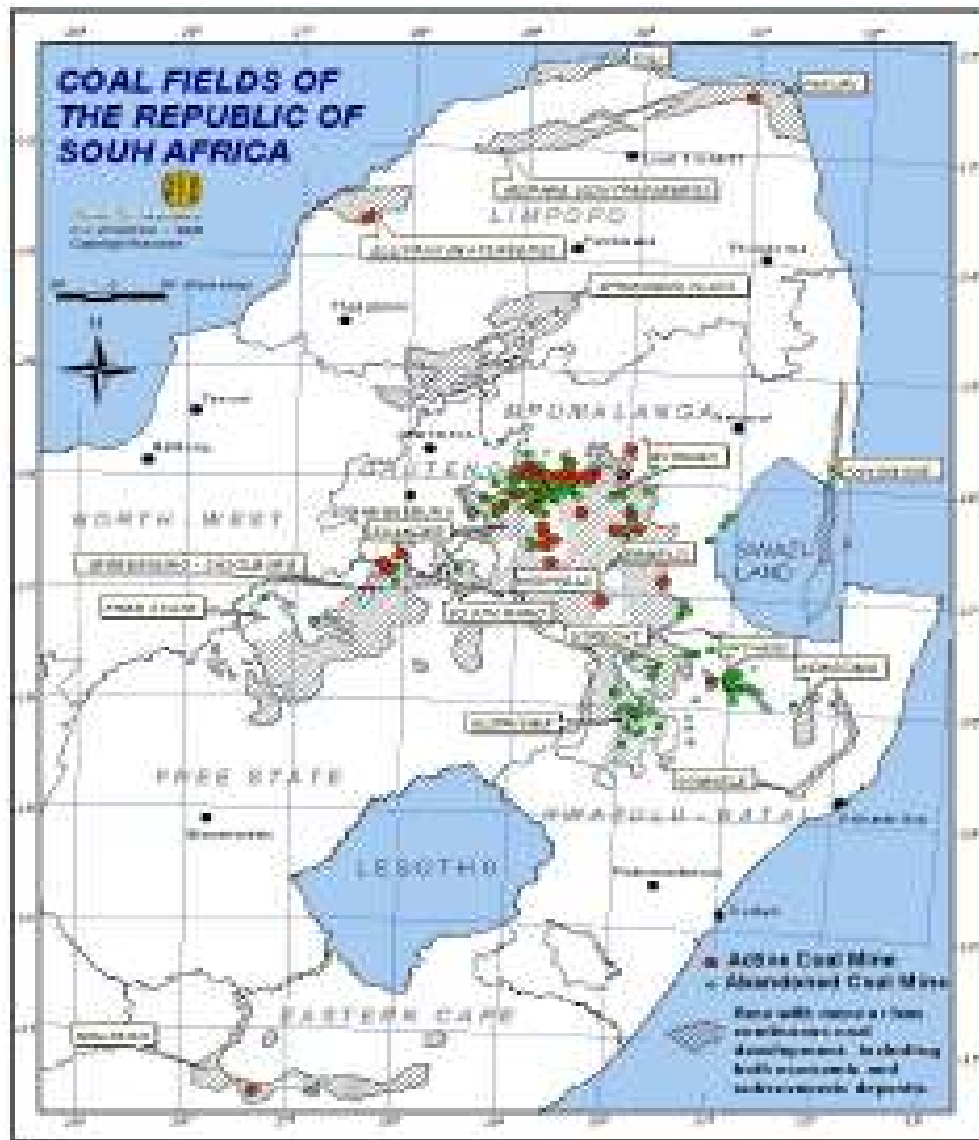


Figure 4.3: South Africa Coal fields²⁵³

Source: Council for Geoscience 2010

²⁵³Council for Geoscience (CGS) (2010a).Coal Fields of the Republic of South Africa.<http://www.geoscience.org.za/images/stories/coalfields%20rsa.bmp> accessed on 8th August 2017.



Figure 4.4: Eskom Power Stations²⁵⁴

Source: Eskom, 2017

²⁵⁴<http://www.eskom.co.za/Whatweredoing/ElectricityGeneration/PowerStations/Documents/EskomGenerationDivMapREV81.pdf>, accessed on 8th August 2017.

Figure 4.3 reveals the areas of coal mining in South Africa that are active and abandoned. This in conjunction with figure 4.4 which shows the geographical location of plant structures at strategic positions in South Africa. This underscores the earlier point being made about locating power plants close to the coal fields.

4.4.2 Nuclear Energy

Nuclear also constitute a proportion of South Africa energy mix. The nation has two nuclear reactors that generate around 5% of its electricity while in 1984, its first commercial nuclear reactor started working.²⁵⁵ The breakdown of the statistics on the reactors is provided in Table 4.2.

²⁵⁵ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018

Table 4.2: South Africa Power reactors²⁵⁶

Reactor	Type	Net capacity	First power	Planned closure
Koeberg 1	PWR	930 MWe	April 1984	2024
Koeberg 2	PWR	900 MWe	July 1985	2025
Total (2)		1830 MWe		

Source: World Nuclear Association, 2018

²⁵⁶ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018

It is shown from Table 4.1 that the operating power reactors Koeberg 1 and Koeberg 2 have life expectancy of 40 years with net capacity of 930 and 900 MWe respectively. Efficiency becomes strategic in prioritizing the location of the nuclear plants. In the mid 1970's, it was therefore decided in Koeberg near Cape Town to build 1,800 MWe of nuclear power. This decision led to the commissioning by Framastome (now Areva) of Eskom of the structure which was built in 1984-85.²⁵⁷

²⁵⁷ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018

Nuclear Power Plants in South Africa

- Operating
- Planned



Source: World Nuclear Association

Figure 4.5: South Africa Nuclear Power Plants²⁵⁸

²⁵⁸ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018, World Nuclear Association 2018

Figure 4.5 reveals the strategic location of both operating and planned nuclear power plants in South Africa.

No doubt nuclear poses significant health hazard to the environment. Thus, it becomes imperative to have minimum control over the activities surrounding the use of nuclear energy. The Minister of Mineral and Energy has been entrusted with responsibility in this regard by the 1999 Nuclear Energy Act for nuclear power generation, radioactive waste management and the country's international commitments.²⁵⁹

In addition, a Nuclear Energy Corporation of South Africa (NECSA) is responsible for a number of nuclear power issues including waste and safeguards, established by the Atomic Energy Corporation (AEC) under the Act.²⁶⁰

The National Nuclear Regulator (NNR) has been established in 1999 by National Nuclear Regulator Act (NNR) in the framework of regulatory actions that cover the entire fuel cycle from mining to waste disposal and in particular installation, design, construction, operational and decommissioning.²⁶¹ In preparation for a higher role for new nuclear plants, the NNR is especially important. In 2015, NNR established relations with the National Nuclear Safe Authority (NNSA) of China to collaborate on a number of fronts and compare regulatory practices to further strengthening its operations.²⁶² In general, the Department of Minerals and Energy (DME) is responsible for overall nuclear energy management and administration, while Eskom is located under the Public Enterprise Ministry.²⁶³

Notably, the Ministry of the Environment with a co-operative Nuclear Regulator Agreement is responsible for the project assessment with regard to environmental impacts.²⁶⁴

An International Atomic Energy Agency (IAEA) Integrated Nuclear Infrastructure Report (INIR) task late in 2013²⁶⁵ was conducted to assess the position of a country's

²⁵⁹ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018, World Nuclear Association 2018

²⁶⁰ This is exclusive of power generation

²⁶¹ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018, World Nuclear Association 2018

²⁶² Ibid

²⁶³ Ibid

²⁶⁴ Ibid

²⁶⁵ This was the first of such mission to a country with established nuclear power which proved to be valuable.

growth of nuclear infrastructure in an effort to assess nuclear power plants and its infrastructure.²⁶⁶

The energy mix in South Africa is not restricted to both coal and nuclear. It also comprises others such as hydro, gas turbines known as open cycle gas turbine (OCGT) and wind. An illustration is given in Table 4.3 with regards to the installed capacities of the different plants.

²⁶⁶ World Nuclear Association 2018 <http://www.world-nuclear.org/information-library/country-profiles/countries-o-s/south-africa.aspx> accessed on 16th August 2018, World Nuclear Association 2018

Table 4.3: Eskom Plant mix and their corresponding Generating Capacity²⁶⁷

Type	Name	Installed Capacity (MW)	Date of commissioning (Age)	Design Efficiency at rated turbine (%)
Coal-fired	Arnot	2,100	1975 (40)	35.6
	Camden	1,600	1967 (mothballed and recommissioned between 2005 and 2008)	33.4
	Duvha	3,600	1975	37.6
	Grootvlei	1,200	1969 (mothballed in 1989/90 and recommissioned in 2008)	32.9
	Hendrina	2,000	1970 – 1976 (refurbished between 1995 and 2003)	34.2
	Kendal	4,166	1993	35.3
	Komati	1,000	1966 (mothballed 1987 and recommissioned in 2012)	30.0
	Kriel	3,000	1979	34.9
	Kusile	4,800	Under Construction (First unit 2017)	37.5 (reduced by inclusion of FGD from 40)
	Lethabo	3,708	1980	37.8
	Majuba	4,110	1996	35.3
	Matimba	3,990	1998	35.6
	Matla	3,600	1983	37.6
	Medupi	800 (4,800)	Under construction. First unit synchronized March 2015	40
Tutuka	3,654	1985	38.0	
Nuclear	Koeberg	1,800	1984	32.4
Hydro (Conventional)	Gariep	360	1971	Peaking station
	Vanderkloof	240	1977	Peaking station
Hydro (Pumped Storage)	Drakensberg	1000	1981	Peaking station
	Palmiet	400	1988	Peaking station
	Ingula	1,332	2014	Peaking station
Wind	Sere	100	2014	
	Klipheuwel	3		
OCGT	Acacia	171	1976	
	Ankerlig	1338	2007	
	Gourikwa	746	2007	
	Port Rex	171	1976	
Total		45389	(excluding Medupi and Kusile)	

Source: Eskom, 2014

²⁶⁷ www.eskom.co.za 2014 accessed on 16th August 2018

In particular, Table 4.2 lists the plants and their capabilities. This reveals that coal constitutes the largest proportion of Eskom's generation mix. There are in total 13 coal fired plants with a capacity of 37, 745 MW, nuclear has 1800 MW, hydro has 1332 MW, Open Cycle Gas Turbine has 2,426 MW and wind has 103 MW bringing the total to 45,389 MW.

There is no doubt given the above figures and capacities that South Africa has considerably modest infrastructure to ensure constant supply of electricity. This can however not be maintained without a strong regulatory institution and legal framework. This will ensure that stakeholders do not only understand their roles but also know the consequences for failure to carry out such roles. The next segment shall address these organizations and their legal structure.

4.5 THE REGULATORY INSTITUTIONS IN THE ELECTRICITY SECTOR

4.5.1 Background

South Africa like most countries has had their fair share of problems relating to poor supply of electricity. Notably, Hoops points out that in 2008, blackouts were prevalent which was as a result of imbalance in demand as it relates to electricity generation capacity.²⁶⁸ This was however cushioned by Eskom by rationalizing the available electricity to consumers.²⁶⁹ In the course of the years, distinct stages have distinguished the power industry. This stage denoted the emergence by the end of the 19th and 1900s of bigger electricity systems producing electricity for itself and tiny electricity companies producing electricity for the towns. The first stage was the creation of a Monopoly plant (Victoria Falls and the Transvaal Power Company, VFTPC), which provided electrical supplies to the gold mining industry, in the early 1900s until the start of the 1920s.²⁷⁰ The third phase which took place around the early 1920s still exists to date.²⁷¹ The need for a regulated electricity system became imperative as industries and stakeholders began to increase. This is essential to make sure that issues that will hinder full productivity will be easily identified and resolved.

²⁶⁸Hoops, E.C. 2010. *The impact of increasing Electricity tariffs on the automotive industry in South Africa*. Masters Thesis. Nelson Mandela Metropolitan University. Business and Economic Sciences. Port Elizabeth. South Africa

²⁶⁹ Ibid

²⁷⁰ Ibid

²⁷¹ Ibid

In the light of the above and in an attempt to determine the magnitude and breadth of their energy sector activities, some of the main legislative organizations must be examined. These selected institutions include South Africa National Energy Regulator (NERSA), ESKOM and the Department of Energy (DOE).

4.5.2 The National Energy Regulator of South Africa (NERSA)

The NERSA is an enforcement authority established as a legal body under section 3 of the NERSA Act, 2004.²⁷² The mandate of NERSA²⁷³ is The National Energy Regulatory Authority (NERSA) is established as a legal entity under section 3 of the Act of 2004²⁷⁴, Gas Act, 2001²⁷⁵ and Petroleum Pipelines Act, 2003.²⁷⁶ As regards its composition, the Energy Regulator is made up of 9 representatives including the Chief Executive Officer, five representatives part-time and four full-time representatives. The Energy Regulator is backed by staff headed by the CEO.²⁷⁷

NERSA's mission stems from the legislation that governs and prescribes the regulator's function and tasks, and its aim to be a world-class force in the regulation of energy. NERSA's task is to implement public legislation and policies, global norms and industry standards in order to promote viable, organized energy development.²⁷⁸ NERSA must conform to consistent values and methods when governing the sectors under its jurisdiction to fulfil its mission and attain its goals.²⁷⁹ One of NERSA's key values is its professional prowess. The previous globally agreed legislative principles have been used to support its regulatory policy as guided by its legal directive. This is to ensure that equity and fairness is enshrined in its daily operations. These principles are:

i. Openness: It is required that the regulator has to clarify to controlled organizations and other stakeholders its choices and procedures suggesting that the data or information on which that choice is founded is easily accessible and that the rationale behind it is easily clarified. This includes government discussion and

²⁷² Act No. 40 of 2004

²⁷³ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

²⁷⁴ Act No. 4 of 2006

²⁷⁵ Act No. 48 of 2001

²⁷⁶ Act No. 60 of 2003

²⁷⁷ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

²⁷⁸ Ibid

²⁷⁹ Ibid

availability.²⁸⁰The importance of this is to ensure that stakeholders and particularly consumers are not kept in the dark about decisions that have been carried out by the regulator which will no doubt boost the confidence level amongst stakeholders.

ii.Neutrality: The importance of this principle cannot be overemphasized. All stakeholders should be autonomous without one or other community favouring the energy regulator. This will reduce conflict of interest at all levels.

iii.Consistency and Predictability:In comparable situations it is essential for decision-making to be coherent across panel and sensible depending on prior choices to be predictable.²⁸¹

iv. Autonomy: The energy regulator's independence from controlled undertakings is an essential condition for any sound regulation scheme. It is also necessary to guarantee the long term stabilization of legislative procedures independence from political impact. Avoiding legislative catch by certain organizations of customers is also needed to successfully regulate.²⁸²

v.Oversight: The Regulator of Energy should take responsibility for its actions and decisions. Independence must not therefore be mistaken for lack of accountability.²⁸³

vi. Credibility: In the leadership of and relationship with the stakeholders of the Energy Regulator, the Energy Regulator shall be honest, fair and honest.

vii.Productivity: The regulator should leverage the funds necessary to advance legislative goals through objectivity and dedication to evidentiary improving policies.²⁸⁴

viii.Public Interest: The Regulator should endeavour to take decisions in the interest of the public as far as possible.²⁸⁵

The above no doubt represents key principles that are to be constantly reflected upon by NERSA. These guidelines, like the Court of Justice, must be respected to guarantee general legislative trust.

²⁸⁰ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

²⁸¹ Ibid

²⁸² Ibid

²⁸³ Ibid

²⁸⁴ Ibid

²⁸⁵ Ibid

NERSA's directive is enshrined in four basic Acts: i. Law of 2004 (Act No 40 of 2004) on the National Energy Regulator; ii. Electricity Regulation Act 2006 (ERA) (Electricity Regulation Act 2006); iii. Gas Act, 2001 (2001 legislation no. 48) and iv. Pipeline Act, 2003 (Legislative Pipelines Act, 2003).

3 Acts of levy: i. The Levies Act for Gas Regulators, 2002 (No. 75 Act of 2002) ; ii. Levys Act, 2004 (Law No. 28 of 2004) on pipelines for oil and oil ; iii. Section 5B (Act No. 41 of 1987) of the Electricity Act of 1987.

3 Acts to support:

i. The PFMA Act (1999) (Legislative Funds No. 1) (ii); Encouragement of the Access to Information Act 2000 (PAIA); and iii. The Administrative Justice Act, 2000 (Act No. 3 of 2000) is being promoted (PAJA).

iv. 1996 Constitution of the Republic of South Africa and any other applicable law of the Republic.

Therefore, the directive of NERSA can be summarized as follows as specified in the laws concerned:

- i. Licenses issued and circumstances established;
- ii. Tariffs and rates establishing and/or approving;
- iii. Monitoring and enforcement of license terms;
- iv. Conflict resolution, including mediation, arbitration and claims processing;
- v. Collection, storage and dissemination of data in the sector;
- vi. Establishment of regulations, regulations and regulations for the three sectors regulation;
- vii. Determining the production circumstances and relevant norms; and
- viii. Import and manufacturing registration.

NERSA's strategic results-oriented targets are reflected in the directive and represent important public strategy objectives.²⁸⁶ These objectives demonstrate the position of NERSA in supporting the domestic socio-economic and socio-political growth policy. Strategic results-based objectives within the auspices of NERSA are:

1. Ease security of supply to promote socio-economic growth in South Africa in a sustainable way;
2. To promote sustainable socioeconomic development in South Africa by facilitating growth in and entry to energy infrastructure;
3. Encourage the competitiveness and efficiency of the power sector and organized growth to maintain socioeconomic growth in South Africa;
4. Facilitating access to energy and affordability for balancing economic interests of all stakeholders in favour of South Africa's socio-economic development and improving life for all; and
5. To make NERSA a credible and trustworthy regulator to ensure legislative consistency.

As the intended start of the energy industry, NERSA's strategic aims are:

- i. Promoting a safe and safe energy availability for existing and prospective user needs;
- ii. Develop a legislative framework to facilitate energy infrastructure expenditure;
- iii. Encourage energy industry competitiveness and competitiveness;
- iv. Promoting legislative assurance in the power sector;
- v. Encouraging all residents ' accessible and inexpensive electricity; and
- vi. Create NERSA as a trustworthy and reliable regulatory institution.

There is no doubt that despite all the above goals, difficulties may arise in actualizing stated objectives. As such, NERSA has implemented several processes to support it in

²⁸⁶ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

meeting its strategic objectives to accomplish its result-oriented objectives. This is achieved by the following activities:

- i. Tariffs and rates established and/or approved;
- ii. Registration and certification;
- iii. Monitoring and implementation of compliance;
- iv. Resolution of disputes including mediation, litigation and claims processing;
- v. Settlement of industry regulations, guidelines and regulations; and
- vi. NERSA as an effective regulatory authority.²⁸⁷

Electricity regulation is essential for economic development. It is essential, therefore, for adequate regulation to be guaranteed by safeguards in location. The Electricity Regulation has made that possible. The Electricity Regulation's purpose is financial regulator of the energy sector, based on the existing regulations.²⁸⁸The department has four divisions that act as a basis to fulfil its mission.

A. Department of Licensing and Compliance

1. Issuing licenses with terms of service:

- a. Electricity production, transfer and allocation
- b. Electricity import / export
- c. Electricity traders

2. Registers those who provide the facilities described above but need not be authorized

3. Monitor adherence by licensees with license terms and conditions²⁸⁹

B. Tariffs and Pricing

1. The electricity supply industry's economic regulations

a. Specification and composition of tariff rules

²⁸⁷ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

²⁸⁸ Ibid

²⁸⁹ Ibid

- b. Tariff methodologies (for example Rate of return, determination of multi-year price)
- c. Assesses licensees ' tax requests
- d. Frameworks for price²⁹⁰

C. Planning for Electrical Infrastructure

- 1. Future energy demand / needs scheduling in that country (National Integrated Resource Plan)
- 2. Promoting option techniques for power production, e.g. Cogeneration renewable energy.
- 3. Promoting power effectiveness and supply side leadership projects²⁹¹

D. Reform of regulations

- 1. Developing an electricity distribution restructured legislative structure, i.e. establishment of regional distributors of electricity (RED)
- 2. Electricity distribution industry research and development
- 3. Framework for International Trade²⁹²

It is important to point out that the above cannot be achieved without the input and strategic partnership of other bodies in the industry. Thus, even though plans may have been set aside for optimal productivity, certain unforeseen factors are bound to hinder desired progress. Table 4.4 is illustrative.

²⁹⁰ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

²⁹¹ Ibid

²⁹² Ibid

Table 4.4: NERSA Performance²⁹³

	Completed	On track	Delayed due to external dependencies	Delayed (Other)	Removed	Total*
Electricity Industry Regulation	19 (28%)	12 (18%)	27 (40%)	9 (13%)	33	67
Piped-Gas Industry Regulation	15 (33%)	3 (7%)	10 (22%)	17 (38%)	23	45
Petroleum Pipelines Industry Regulation	10 (34%)	8 (28%)	4 (14%)	7 (24%)	12	29
Grass-cutting Regulatory	8 (28%)	12 (41%)	1 (3%)	8 (28%)	11	29
Organizational	58 (40%)	62 (43%)	5 (3%)	19 (13%)	5	144
Total	110 (35%)	91 (31%)	47 (15%)	60 (19%)	84	314

Source: NERSA, 2018

²⁹³ NERSA 2018 <http://www.nersa.org.za/#> accessed on 21st August 2018

Table 4.3 depicts the performance of NERSA in a given year with regards to the plans drawn and achieved. In the electricity sector for instance, it is shown that 67 out of a total of 100 activities were completed while the remaining 33 activities were expunged from the year plan.

4.5.3 Eskom

Eskom which was established in 1923²⁹⁴ is a South African electricity state owned utility whose responsibility of which in South Africa includes energy production, transmission and transport. It is certainly not the only participant in South Africa's energy sector, however, as it dominates the sector for its commitment to securing that electricity is produced and circulated not only extensively.

The distribution of energy was much divided in the mid 1900s in South Africa, but the 1987 Electricity Act completely substituted the 1958 Act and the Electricity Supply Commission (Escom) was created Eskom.²⁹⁵ Currently Eskom which was formed under the Act of 1987 has been replaced by the Eskom Conversion Bill of 2001 and now named Eskom Holdings Ltd.²⁹⁶ Thus Eskom became a public company as of 1 July 2002, under the Eskom Conversion Act, 13 of 2001, as Eskom Holdings Limited. The electricity board and management board's two-level governance structure was replaced by an advisory board.

²⁹⁴Escom Act of 1922

²⁹⁵Ramokgopa, B.M. 2007. *Tariff History 2002 – 2007* [Online]. Available from: www.eskom.co.za accessed on 21st August 2018 p. 14

²⁹⁶Eberhard, A. & Mtepa, M. 2003. Rationale for restructuring and regulation of a low priced public utility: A case study of Eskom in South Africa. 3(2): 77-102.

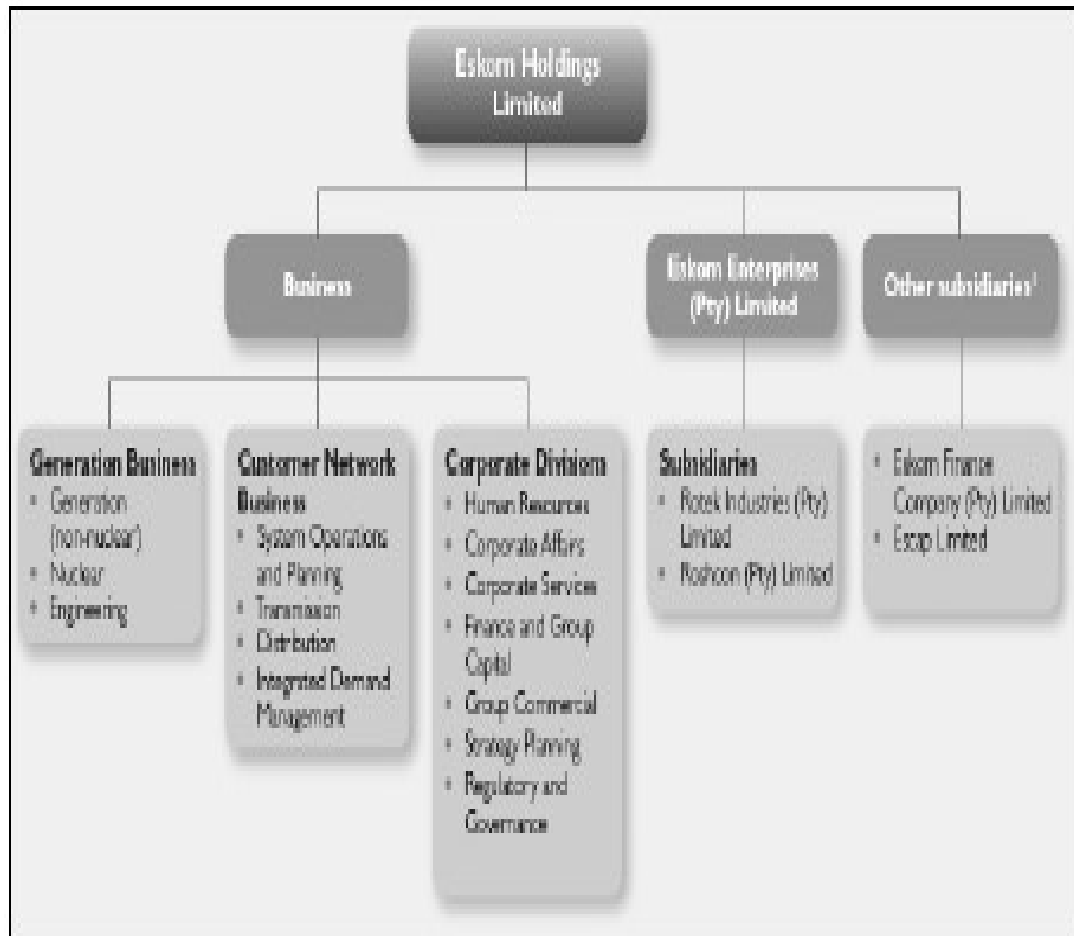


Figure 4.6: Structure of Eskom²⁹⁷

Source: Eskom, 2011

²⁹⁷ Eskom.2011. *Eskom Tariff Brochure* [online] Available at: www.eskom.co.za/content/tariff_brochure2011.pdf accessed on 21st August 2018

Figure 4.6 shows the current structure of Eskom with its subsidiaries.

South Africa electricity industry has three electricity generators. These include Eskom (public electricity utility), Municipality generators and private generators (Independent power producers).²⁹⁸

²⁹⁸Mvuleni, J.B. 2008. *The Influence of three Electricity Distribution Restructuring on the Nelson Mandela Bay Municipality*. Unpublished Masters Dissertation. Port Elizabeth: Nelson Mandela Metropolitan University.

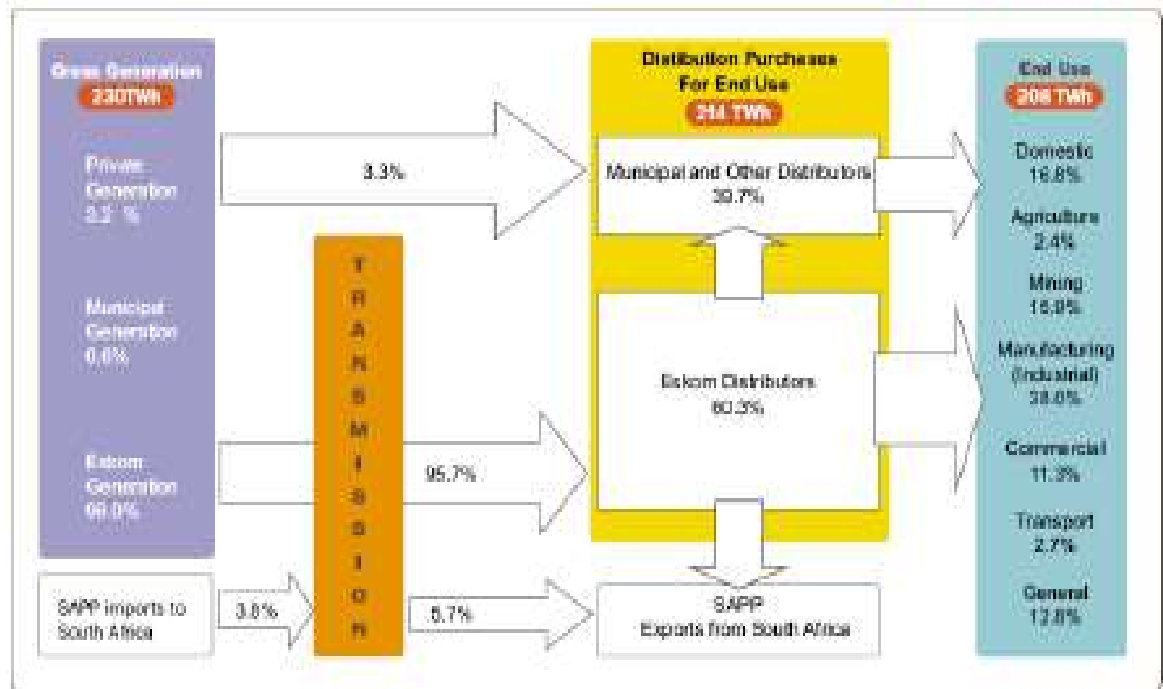


Figure 4.7: Energy flow between the stakeholders²⁹⁹

Source: Mvuleni, 2008

²⁹⁹Mvuleni, J.B. 2008. *The Influence of three Electricity Distribution Restructuring on the Nelson Mandela Bay Municipality*. Unpublished Masters Dissertation. Port Elizabeth: Nelson Mandela Metropolitan University.

Eskom is notably the highest producer among the three as seen in figure 4.7. It produces about 95 per cent of South Africa's power and around 45 per cent of Africa's electricity.³⁰⁰ It produces, transmits and distributes the energy to the clients and redistributors of industry, mining, trade, agriculture and residence.³⁰¹ In particular, extra power stations and large energy lines were constructed to satisfy the growing requirement for electricity in South Africa to guarantee supply problems did not arise.³⁰² Eskom will therefore proceed to concentrate on enhancing and enhancing its key energy generating, transmission, trade and delivery company.³⁰³

Operationally, Eskom purchase electricity from the Southern African Development Community (SADC) countries and sells electricity. African companies outside South Africa (SADC-connected nations in the South African network and other nations in Africa) will only participate in those initiatives with an immediate effect on the safety of production in South Africa.³⁰⁴ A typical load system of electricity supply parts is given below in figure 4.8.

³⁰⁰ See http://www.eskom.co.za/OurCompany/CompanyInformation/Pages/Company_Information.aspx accessed on 21st August 2018

³⁰¹ Ibid

³⁰² Ibid

³⁰³ Ibid

³⁰⁴ Ibid

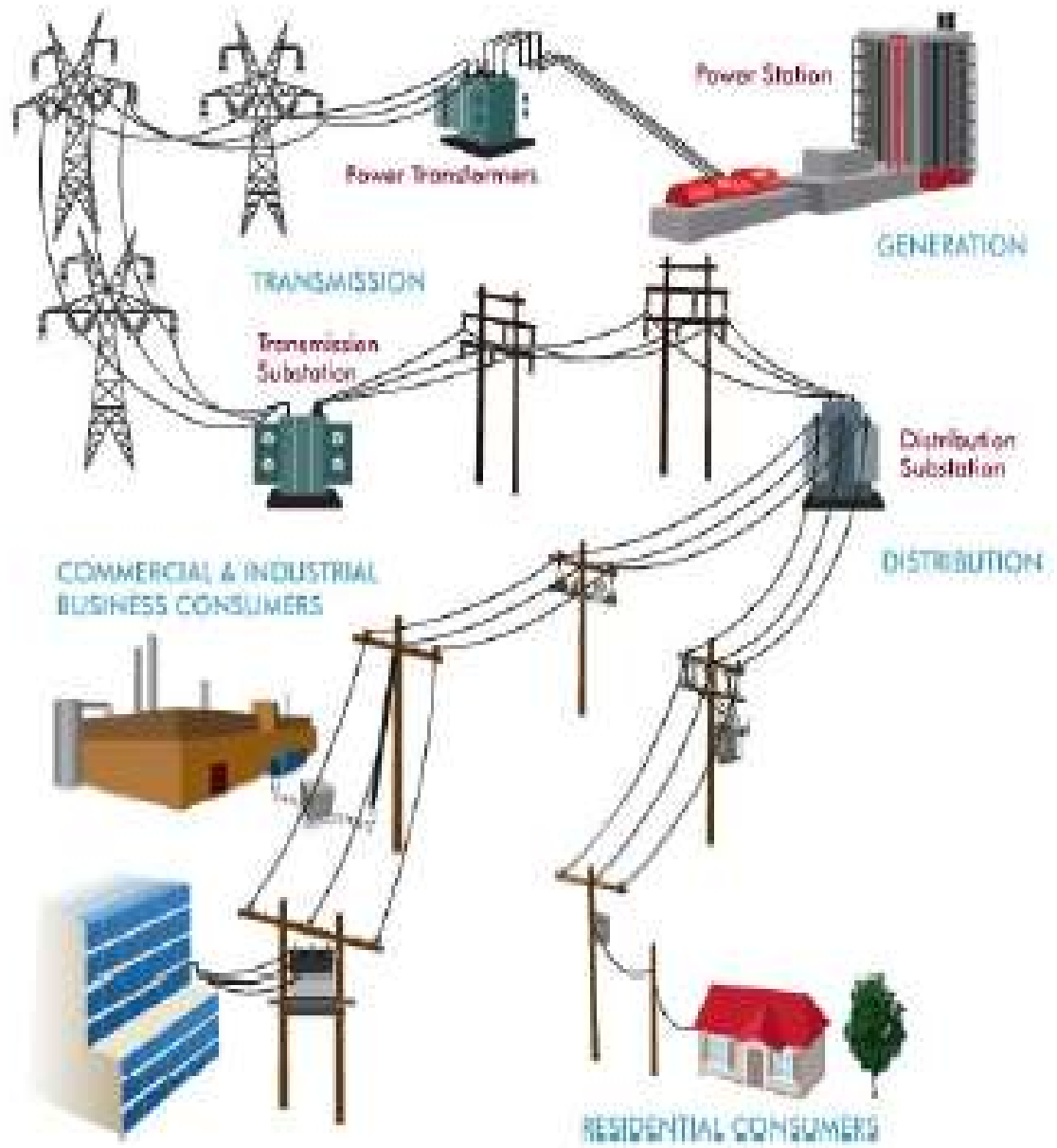


Figure 4.8: Electricity Supply Industry (ESI) structure³⁰⁵

Source: Oncor, 2010

³⁰⁵Oncor.(2010). *Transmission*. [Online]. Available from: <http://oncor.com/electricity/transmission/default.aspx> accessed on 22nd August 2018

Figure 4.8 depicts that the Electric Supply Industry have 3 components.

4.5.4 Department of Energy

The Energy Department is the public organization to develop, use and manage South African power supplies.³⁰⁶ In particular, it administers and controls programs aimed at energy access and offers policy assistance and leadership facilities in the nation.³⁰⁷ In this regard, it becomes central to ensuring that South Africa's electricity management is positioned to serve its customers with constant supply of electricity. In order to carry out its goals, the department of energy sets as one of its priority a strategic plan to ensure energy security which is expected to promote the constant availability of electricity in the country.³⁰⁸

In South Africa the role of the above institutions cannot be over-emphasized. These institutions are key to the continuous development of the energy sector and its proper management is therefore crucial to ensuring stable electricity for the numerous consumers in South Africa. It should be noted that while policy formulations and implementations can be said to include part of the strategies to ensure that the electricity industry continues to maintain a focus on the promotion of the constant availability of electricity in the country, the role of law in ensuring that the above are maintained cannot be neglected. Laws are therefore important to ensure that laid down obligations are correctly adhered to in the industry and that violators of obligations are punished. In this context, the significance of law in the electricity business must therefore be regarded by analyzing the accessible legal framework to determine how safe the availability of electricity has been taken into account.

4.6 AN APPRAISAL OF THE RELEVANT LEGAL FRAMEWORK ON ELECTRICITY

In this chapter the different legislation in South Africa relating to electricity leadership will be attempted. Thus, attention will be placed on the two principal legislations which include the Act regulating the Nation's Energy of 2008 and the Act Regulating Electricity of 2006. It is believed that an understanding of these two legislations will

³⁰⁶ Department of Energy http://www.energy.gov.za/files/au_frame.html accessed on 23rd August 2018

³⁰⁷ Ibid

³⁰⁸ Department of Energy, South African Energy Synopsis 2010. Directorate: *Energy Information Management, Process Design and Publications*. ISBN: 978-1-920435-4. 2010

provide an in-depth background on the legal framework of electricity in South Africa. Notably, while all the provisions in the laws are useful, attention will only be placed on those sections that are important to the development of this research for the purpose of analysis.

4.6.1 An Appraisal of the National Energy Act 2008³⁰⁹

South Africa has a robust energy regime that seeks to ensure stability and consistency in the sector. The Act has six chapters with twenty one sections. Chapter one deals with the definitions and objects, chapter two dwells on energy supply, optimisation and utilisation, chapter three deals with integrated energy planning, chapter four is about the institute responsible for the development of energy in the country, chapter five focuses on security of supply while chapter six deals with general provisions.

The preamble to the Act is illuminating and defines clearly the objective of the law which is:

“To guarantee varied power assets accessible to the South African community for the sake of financial development and poverty reduction, in order to be able to provide viable amounts and at inexpensive rates, bringing into consideration environmental leadership and the interaction between financial industries.”³¹⁰

The above preamble no doubt illustrates the commitment that has been imposed on the electricity industry with specific concentration on ensuring that available resources that must be harnessed should be diverse in nature. This no doubt will avail the industry of various options in the supply of energy and particularly electricity across the various sectors.

Glazewski observed that the Act would no doubt bring important changes which would create a more coalesced legal framework with regards to South African energy and the Act would become the foundation of this legal context.³¹¹ This line of reasoning was however not followed by Strydom and Surridge who point out that there are notable concerns with regards to the effectiveness of the Act.³¹² This issue was based on the fact that the 2005 Energy Efficiency Strategy in the run-up to the Energy Act of 2008

³⁰⁹ Act no 34 of 2008

³¹⁰ The Preamble, National Energy Act 2008, The Republic of South Africa

³¹¹ Glazewski J. 2005. The Legal Framework for Renewable Energy in South Africa p.9

³¹² Strydom HA and Surridge AD 2009 "Energy" in Strydom HA and King ND (eds) Fuggle and Rabie's Environmental Management in South Africa 2nded (Juta Cape Town) p.799

noted the scarcity and failure of the state to take power security programs, as well as the accessibility of power management. This reflects some of the varied opinions articulated before the Energy Act 2008 was implemented.

Notably, some sections are important for the development of this research and will be considered. Thus, those that are of key interest to this research are sections 5, 6, 17 and 18 of the Energy Act 2008.

Thus, Section 5 provides that:

5. (1) The Minister must take action which ensures that all individuals of the Republic have universal access at inexpensive rates to suitable types of energy or energy services.

(2) The actions provided for in subparagraph (1) must consider:

(a) the security, health and economic adequacy of these power sources; (b) the accessibility of power supplies;

(c) optimizing current power facilities;

(d) fresh capital need;

(e) the provision of power data and preparation and its appropriate use;

(f) sustainable power supplies;

(g) affordables;

(h) economic efficiencies;

(i) engagement on the State to provide low-income households with free fundamental electricity; and

(j) suitable government-sponsored program management processes under the PFGA.³¹³

The above represents the basic foundation that is necessary towards achieving the desired goal of ensuring constant availability of energy to South Africa. Notably, the law while placing the burden to carry out measures on the Minister, it is specific on the exact nature of such measures. This are to be seen specifically under section 5 (2) a-j. It is therefore a provision that can be considered as touching on available standard possibilities while opening up opportunities for further inclusion.

³¹³ National Energy Act 34 of 2008

The concern over supply of electricity is paramount thus, there is an emphasis placed on the law in ensuring that this issue is effectively resolved on regular basis. In this regard, the Minister is charged with the responsibility to constantly address matters that are connected with it by ensuring that concerted efforts are structured in its planning.

Thus, section six focuses on Energy integrated planning and provides that:

6.(1) The Ministry must produce and evaluate the Integrated Energy Plan on an ongoing basis and post them in the Gazette

(2) The Integrated Energy Plan is to cope with energy production, conversion, transportation, storage and request in an appropriate manner so as to ensure —

(a) safety of production;

(b) economically accessible power assets;

(c) affordable energy;

(d) Universal availability and affordable fundamental electricity;

(e) economic capital;

(f) jobs;

(g) environmental obligations;

(h) global obligations;

(3) The Integrated Energy Plan must—

a) bring into consideration proposals for the growth of power infrastructures, accommodation, air quality governance, energy-related emission mitigation and national policies of local and regional officials for the growth of transportation, electricity, oil, water and commercial resources;;

b) the information and the notification of the plans of all sectors of supply, production and demand, the plans for which the integrated energy plan impacts or affects, and c) the energy analysis outcomes provided for in sections 3(4)(a) and 3(5).

(4) the drafting of the Integrated Energy Plan should bring account of (a) viable growth;

(b) the best use of indigenous and cultural sources of energy;

(c) the supply and demand equilibrium;

(d) financial viability;

(e) environmental, public health and security effects and socio-economic consequences..

(5) A plan horizon of no less than 20 years shall be established in the Integrated Energy Plan.

(6) The Integrated Energy Plan must

(a) act as a guideline for investment in power facilities;

(b) be aware of all feasible power production alternatives; and

(c) steer the choice of suitable power demand technologies.

(7) The Minister must —

a) request government remarks before the finalisation of the Integrated Energy Plan and

(b) accept these remarks in due course.³¹⁴

It is observed that efforts have been put into ensuring that security of supply with regards to energy has a place in the legal framework. Amongst others, it is important that the plans must not only be made but also be subjected to public views. This will no doubt strengthen the plans before it is finalised.

The following sections (s.17 and s. 18) are provided under chapter 5 which deals mainly with security of supply. Section 17 focuses on acquisition and maintenance of national strategic energy feedstocks and carriers. It provides that:

17. (1) For reasons of security of supply, the Minister may direct any State entity for the procurement, maintenance, supervision and management of national strategic energy feedstocks and carriers in a prescribed manner.

(2) In compliance with the appropriate public safety of production strategies or measures, a nominated state-owned organization shall conduct the tasks referred to in Subsection (1).

(3) The approaches and measures referred to in paragraph (2) may include but not limit themselves to:

(a) minimum power vessel stage or power feedstock for the manufacturing of the power vessel;

(b) condition under which —

(i) global power supply supplies and distribution lines can be constructed; and

³¹⁴ National Energy Act 34 of 2008

- (ii) withdrawals from global power suppliers;
- (4) The Minister must —
 - (a) encourage the audience to comment on that Strategy or policy before the approach or policy is finalized; and
 - (b) regard such remarks properly.³¹⁵

The above places emphasis amongst others on maintaining the safety of demand, as the Minister is mandated to guide all state-owned enterprises to obtain the domestic global energy supplies and distributors, to keep them under control and to handle them. Thus, while issues such as funding and cost benefit analysis would be factored into the processes, obligations to deliver the required power feedstock to the nominated State-owned organization by power feedstock manufacturers are to be provided. The above no doubt will ensure that saboteurs are easily prevented from disrupting the security of supply that has been envisaged by the Act.

Discussions on the security of supply will not be complete without considering mechanisms by which it can be attained. One of such is the presence of functioning energy infrastructure. In this regard, section 18 focuses on investment in and maintenance of energy infrastructure and it provides that:³¹⁶

- 18. For the purpose of maintaining safety, the Minister may guide any governmental agency to
 - (a) implement safety of production policies in a specified way;
 - (b) guarantee appropriate expenditure in power facilities;
 - (c) spend in critical power facilities; and
 - (d) guarantee the maintenance of all essential energy infrastructure.³¹⁷

The above provision reflects the importance of funding energy infrastructure as it is considered as a crucial aspect in ensuring security of supply. Thus, in situations where there are existing infrastructures, it is envisaged that such should be adequately maintained through proper funding. No doubt, this will prevent decadence and ensure the longevity of such infrastructure.

³¹⁵ National Energy Act 34 of 2008

³¹⁶ Ibid

³¹⁷ Ibid

In the above sections, it is observed that there are deliberate attempts by the legal regime of South Africa to put in place mechanism that will guarantee availability of energy which is considered vital to the good health of the energy sector.

It can also be seen that the State's role in securing energy supply cannot be underestimated. This is constantly been reflected in the mandate that has been placed on the Minister in the provisions of the law.

4.6.2 Electricity Regulation Act 2006³¹⁸

The Electricity Act 41 of 1987 was abolished by this Act. It relies on stabilisation of the country's energy production while fostering rivalry from suppliers and different competitive market choices, supporting the opening-up of the resources base.³¹⁹ The objective of the Act is the establishment of the National Energy Regulator as a custodian and enforcer of domestic legislative structure for electricity supply. It also aims to provide licenses and registrations in accordance with the way of the regulations governing production, transmission, delivery, trading, and transport and export of electricity.³²⁰ It is divided into seven chapters with forty nine sections which focus on interpretation, oversight of electricity industry, electricity licences and registration, resolution of disputes and remedies, investigations and general provisions.

The Act sets the electricity industry's supervision role under Section 3 in the National Energy Regulator. It means that the regulator is not only the guardian but also the implementing authority of the legislative structure as laid down in the Act.³²¹ In accordance with this, the agency is required to review the license requests and submit them for the reasons of production, transmission, delivery, energy and trading, import and transport.³²² These powers though wide are considered to be important towards ensuring that the industry is properly monitored for efficiency purposes. The idea of placing such roles in a single entity is commendable as it will aid ease of processing and prevent unnecessary bottlenecks by interested stakeholders.

³¹⁸ Act 4 of 2006

³¹⁹ Strydom H.A and Surridge A.D 2009" *Energy*" in Strydom H.A and King N.D (eds) Fuggle and Rabie's Environmental Management in South Africa 2nded (Juta Cape Town) p.799 p.800

³²⁰ Preamble to the Act; World Bank Group Public-Private-Partnership Legal Resource Centre <https://ppp.worldbank.org/public-private-partnership/library/south-africa-electricity-regulation-act-2006> accessed on 23rd August 2018

³²¹ S.3 Electricity Regulatory Act 2006

³²² S.4 (a) (i) Electricity Regulatory Act 2006

The regulator is also charged with the responsibility of regulating prices and tariffs.³²³ This is no doubt a huge task that has been placed on the regulator. The independence of the regulator in this aspect has been contemplated positively as against placing such role in the hands of the government through the Minister who may be swayed by political motives to fix prices that will go against economic reasons for the purpose of getting sympathy from the citizens. This may usually be carried out for the purpose of electioneering.

While this constitutes the regulator's obligatory requirements, it does also contain additional requirements. These include mediating conflicts between generators, transmitters, retailers, clients or end users; investigating and investigating licensees' activity and conducting all other acts that are incidental with their function.³²⁴ The implication of the above is that the law has opened a window for the regulator to invite a third party to perform the stated role to the extent stipulated under section 42 of the Act.³²⁵ The whole essence of the above with respect to electricity is to ensure that the institutions and its legal framework are put into use. Thus, it is expected that once the above are functional, the result will be evident through availability and security of electricity supply in the country. In this respect, the magnitude of energy safety in South Africa should be examined.

4.7 SECURITY OF ELECTRICITY SUPPLY IN SOUTH AFRICA

Constant availability of electricity cannot be discussed in isolation. Several factors have to be put into consideration before arriving at the point of stock safety. Notably, issues that pertain to security of supply which include, the sources of energy, presence of strong institutions and legal support through the available legal framework have been considered above respectively.

No doubt, efforts to improve supply efficiency in electricity supply industry means that the energy supply sources have to be improved. Eskom, the main provider of electricity in South Africa, has constantly carried out this assignment. Eberhard points out that South Africa's energy supply industry is not only ranked seventh in the globe in numbers of volume and power sale but is not only dominated by a state-owned and

³²³ S. 4 (a) (ii) Electricity Regulatory Act 2006

³²⁴ Electricity Regulatory Act 2006 s. 4 (b)

³²⁵ The introduction of a third party is however not contemplated where disputes involves licensees and they have indicated that the regulator must act as such.

vertically integrated power plant.³²⁶He further states that Eskom provides nearly 96 percent of South Africa's energy needs, which equals over third of the African continent's electricity.³²⁷Eskom provides its clients 60 per cent of electricity, while an estimated 240 merged local authorities provide the distinction immediately.³²⁸

The complete authorized production capability was 43.1 GW³²⁹ in South Africa.³³⁰The country sells electricity to neighbouring countries³³¹which accounted for about 2% of the complete generated net electricity.³³² There are also collaborations from neighbouring countries with regards to importation of electricity. Whereas electricity from CahoraBassa power plant is contractually required at Zambesi,³³³ it also purchases electricity from DRC and Zambia to manage its highest loads.³³⁴The domestic system owned and controlled by Eskom consists of 27,000 kilometers of routes³³⁵ with an expected power loss of less than 5%.³³⁶The request part shows that 6,5 million energy consumers and the complete consumption of energy is 18%, the production figure is 44%, the mining figures are 18% and the trade, shipping and agrarian users are 20%. The request part is 6.5 million.

Thus, from the above, there is no doubt that ESI of South Africa can be said to have performed to considerably satisfactory level. Eberhard therefore considers that the reliability and performance of service is great given that the median energy available³³⁷ from its power plant rose from 76% in 1991 to 92% in 2000³³⁸ and the characteristics of generating charge considerably improved from 50% to 55% over the same era.³³⁹

³²⁶Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 1

³²⁷ Ibid

³²⁸ Ibid

³²⁹ Ibid. p. 2; Eskom owned 39.9GW; GW = Gigawatts = 1 000 000 000 Watts. MW = 1 000 000 Watts

³³⁰ This was in 1999

³³¹ Botswana, Swaziland and Zimbabwe

³³²Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 2

³³³ This belongs to Mozambique

³³⁴Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 2

³³⁵Eberhard notes that the bulk of it is at 400 and 275 kv, but 765, 220 and 132 kv lines also exist as well as 533 kv DC

³³⁶Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 2

³³⁷ This is defined as capacity hours available x 100/total capacity hours in year

³³⁸ after excess capacity management which Defined as kWh produced x 100/(average net maximum capacity x hours in year)

³³⁹Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 4

Significantly, issues of financing have not been a hindrance to the prospect of sustaining its security of electricity supply. This is because the domestic power station is publicly operated and does not rely on the domestic budget for its financing. Thus, it relies on the commercial principle of debt financing where it issues bonds which have the support of local and international capital markets.³⁴⁰

Notwithstanding the above strengths in the supply industry³⁴¹ which have benefited the image of the government in terms of social and economic delivery, there have been calls for reforms in terms of economic objectives in the sector which are to be driven by the government. The call to guarantee electricity supply safety is particularly noteworthy. In this regard, Eberhard opines:

“...The production safety is a bit more complicated. Planned monopolies often result in over-investments, and we saw that with Eskom in the background. Investments motivated by the market should result in optimum efficiency of capital. However, it is not that well demonstrated that commodity markets can provide demand safety. The equity patterns of over and under capital that are obvious in commodity cost fluctuations appear to occur in other commodity markets. The situation could be worse in the case of electricity because it is not stockable or stored. Integrated resource planning (IRP) domestic capability can give citizens premature alert hints regarding the hazards of underinvestment, and regulators can always act on the industry to improve capability.”³⁴²

The above therefore directs us to the fact that there must be a check in place to deter over and under investment in the sector which would send a signal for a quick intervention of the government. This no doubt will provide a platform that will ensure constant supply of electricity in South Africa given its huge resources, legal and institutional framework. In the next section, an attempt will be made to compare by way of analysis the legal framework on electricity of that of South Africa with that of Nigeria in order to determine possible areas of improvements in the Nigeria legal framework.

³⁴⁰Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 5

³⁴¹ Notably, the rural development project goals of electrifying 2.5 million homes was met and exceeded.

³⁴²Eberhard A. 2001. *Competition and Regulation in the Electricity Supply Industry in South Africa*, Annual Forum, University of Cape Town. p. 6

4.8 THE COMPARATIVE ANALYSIS OF SOUTH AFRICA AND NIGERIA LAWS ON ELECTRICITY

This aspect focuses on analyzing the appropriate legislation governing the electricity industry in Nigeria and South Africa. The Electric Power Sector Reform Act 2005 (EPSRA 2005) and the Electricity Regulation Act 2006 (ERA 2006) of Nigeria and South Africa will therefore be respectively considered in this regard.

An overview of both laws reflect that while that of Nigeria has 101 sections which are divided into 13 parts, that of South Africa has 37 sections divided into 7 chapters. Notably, it can be seen that the Nigerian law has more content than that of the South African law. This however does not translate to efficiency. The reason for the lengthy nature of the EPSRA 2005 can be deduced from its long title which states thus:

“An Act to create the Nigeria Electricity Regulatory Board to create the National Electricity Authority's corporate structure and resources, liabilities and employees to create sustainable electricity economies, to grant a license and to regulate electricity generation, transmittal, production and supply ; to implement the applicable laws.”³⁴³

In particular, the above provides a comprehensive overview of the Act's intent which does not only ensure the regulation of the industry but also provides statutory directions as to the ways and manners in which the erstwhile company³⁴⁴ will be taken over. The South African law on the other hand is solely concerned with the regulatory objective of the electricity supply industry. Thus, it provides that:

“Establish a domestic legislative structure for the production sector of electricity; ensure a domestic energy regulator for South Africa; provide for licensing and enrolment as to how electricity production, transmission, production, cross-linking, trading and importation and exportation are controlled.”³⁴⁵

The above reflects that the ERA 2006 does not concern itself with other incidental issues. The effect of the above is that the legislators could have separated the objects of taking over of the former companies from the objects of regulating the industry. This would not have defeated the purpose that was intended. In fact, a better result would have been achieved by ensuring that events that have been carried out are not reflected

³⁴³ EPSRA 2005 Long title

³⁴⁴ National Electric Power Authority (NEPA)

³⁴⁵ ERA 2006 Long title

in the EPSRA 2005. Notably these issues could have been dealt with contractually or in a separate legislation.

There are peculiar similarities that can be seen in both the EPSRA 2005 and the ERA 2006. The issue of licenses and tariffs are areas where both laws do not only provide for but also ensures that the regulatory bodies manages and implements policies that affect stakeholders. In essence, all affairs relating to licences and tariffs are subjects of regulation under sections 62 to 76 of the EPSRA 2005 and sections 7-21 of the ERA 2006. Furthermore, while issues relating to land acquisition and access rights are considered separately under part V sections 77 to 79 in the EPSRA 2005 such are merged as part of chapter 3 with reference to sections 22 to 26 of the ERA 2006. The slight distinction in structural arrangement between that of Nigeria and South Africa could possibly be to connote that in actual fact, issues of licencing cannot be separated from access to land and such other incidental rights hence the classification with licencing under the same chapter in the ERA 2006.

Notably, both laws provide for the presence of a constituted body to serve as an independent regulator. This can be seen as one of the primary objective of the Acts as reflected under the long titles. The importance of the regulator in the scheme of activities of the electricity industry cannot be overemphasized. The establishment by means of Article 31, and the particular orders supplied for under Sections 32 and 33 EPSRA 2005 is carried out by the Nigerian Electricity Regulatory Commission. Section 3 of the ERA 2006 also shows this. The committee responsible for electricity in South Africa has evident distinctions. A careful look at the ERA 2005 shows that the responsibility to oversee the electricity industry has been placed on the Nation's Energy Regulatory body which was created through another Act.³⁴⁶ It stipulates that "the National Energy Regulator formed pursuant to Section 3 of the Act is a guardian and enforcer of the legislative structure set out in that Act."³⁴⁷ The implication of this is that the regulators do not concern itself alone with electricity issues but the overall energy affairs in South Africa. This responsibility allows it to manage all the affairs of the energy industry in order to create the necessary balance that will achieve optimal performance of the electricity industry. No doubt, the above framework, unlike that of

³⁴⁶ National Energy Regulatory Act section 3

³⁴⁷ ERA 2006 section 3

its Nigerian counterpart will ensure that issues of regulatory conflict will be reduced when it comes to harmonising resources in making electricity availability certain.

In order to address the problems of poor rural electrification in Nigeria, the 2005 EPSRA provides for a rural electrification fund under sections 88 to 92. This is however not present in the ERA 2006 as South Africa had dealt with such similar issues as noted earlier through debt financing by the issuance of bonds.

The issue of dispute resolution mechanisms is an area that is fundamental to the electricity industry as it aids continuous relationship among stakeholders. This is provided under sections 30 and 31 of the ERA 2006 while such measures are provided indirectly under the EPSRA 2005 by virtue of section 96 (2).³⁴⁸ The implication of this is that while issues of dispute resolution mechanisms are statutorily provided under the ERA 2006, such measures are situated under the self-interests of the regulator under the EPSRA 2005. Section 96 (1) and (2) (a) provide that:

“(1) Anything needed or allowed by this Act or necessary for its purposive implementation or application to this Law may be approved by the Commission or, in the view of the Commission, may be regulated by the Commission.

(2) Regulations produced pursuant to paragraph (1) of this chapter can provide for the following, without exception to the generality of paragraph (1) -

(a) the administration of the Commission's affairs, including, inter alia, the conduct of meetings, hearings, procedures, proceedings for arbitration and mediation, investigation and investigation, the transformation into a party to it, the management of information, the rules governing proceedings and, in general, the conduct of business ;³⁴⁹

A careful study of the above reveals that sub-section 1 gives the regulator the discretion with regards to the making of regulations concerning issues that are contained under sub-section 2 and particularly on the issue of hearings and proceedings, arbitration and mediation proceedings. This is clearly a distinction from its South African counterpart. There is no doubt that with such powers, a new commission may decide to change its style of administration with regards to the above

³⁴⁸ Customer Complaints Handling (Standards and Procedures) 2006 and NERC Business Rules 2006

³⁴⁹ EPSRA 2005 section 96 (1), (2) (a)

issues. This will therefore mean that consistency of approach will not be guaranteed under the ESPRA 2005 as against what is obtainable under the ERA 2006.

The South African experience with regards to electricity has been explored in this chapter with regards to the numerous sources of energy, the institutions and the legal framework. Coal has been noted as a key input to electricity generation in the energy sector relative with other forms, such as nuclear energy, hydropower and gas. It is therefore not surprising that adequate measures were constantly put in place to develop this area through adequate investments in infrastructure. Notably, it was pointed out that the infrastructure meant for generation of electricity are mostly located at places that are very close to the source of energy being used. This no doubt reduced the cost of transportation and other incidental costs in ensuring that electricity is generated for the South African populace.

In ensuring stability in the electricity industry, it was observed that Eskom which is a utility company plays a huge role among the stakeholders in the electricity industry by being a participant in South Africa's energy production, transmission and storage. This huge role therefore became a yardstick for considering its relevance and role in the industry alongside other institutions. The above prepared a background for a robust discussion of South Africa's Legal Power Framework where two principal legislations were analysed. This assessment has been helpful to distil the various statutory commitments under the South African energy legislation. This was concluded with an attempt to compare the legal framework on electricity of South Africa with that of Nigeria. An analysis relating to the above showed that while there are commendable legislations in the legal framework of Nigeria, there are obvious gaps that must be considered for subsequent reforms.

4.9 CONTRACTUAL OBLIGATIONS

In the last section, emphasis was placed on the notion that the legal obligations to supply electricity can be classified into two forms namely: The statutory obligation to supply electricity and the contractual obligation to supply electricity. The former has been considered in the previous chapter. The focus of this chapter will be on the latter which refers to those provisions that have been put in place in different documents in order to guide the affairs of all parties and stipulate responsibilities that are expected from each parties to the contract.

A straightforward contract is a contractual agreement between personal sides that establishes shared commitments legally enforceable.³⁵⁰ It therefore means that as long as an agreement has been reached by parties in the electricity industry for the purpose of ensuring compliance, such becomes an obligation that must be carried out. Notably, as long as clear and unambiguous terms have been included in a contract for the provision of services, these becomes binding and a breach is necessarily accompanied by sanctions.

Electricity is without any doubt one of the main drivers of each country's socio-economic development and cannot be over-emphasized in this respect. In comparison to other forms of energy, access to electricity has an enormous role to play in the economy. Therefore, it has undoubtedly created lives much easier by the input of electricity in different areas of human activity, like schooling, hygiene, forestry and all families. Energy is generally thought of as the golden thread that links economy growth, increased social equity and the world's prosperous environment.³⁵¹ Electricity is essential to the existence of humans³⁵² and as such it is viewed by modern societies as a fundamental requirement and an essentiality for the social and economic development.³⁵³ Modern power facilities are essential for personal wellbeing and for the financial growth of the country, according to the International Energy Agency.³⁵⁴ Access to accessible contemporary energy services is defined as an essential

³⁵⁰ See <https://www.law.cornell.edu/wex/contract> accessed on 13th July 2018

³⁵¹ Ban Ki- Moon. 2012 *United Nations Calls for achieving sustainable energy for all*.

³⁵² Adams, S. 2010. *Accelerating access to modern energy services*, GVEP.

³⁵³ Goldemberg, J., Rovere, E. and Coelho, S.T. 2004. *Expanding Access to Electricity in Brazil*. Energy for Sustainable Development VIII, 4, pp. 86-94.

³⁵⁴ IEA (International Energy Agency), 2011. *Energy poverty: The missing Millennium Development Goal?* Paris: International Energy Agency.

component of human operations; domestic development; economic growth and the decrease of poverty.³⁵⁵

In this section, attempts will be made to evaluate the different forms of instruments that are utilised in the electricity industry for the purposes of engaging with the numerous players towards achieving set objectives of purchase and sale for the purpose of ensuring supply to consumers. Thus, focus will be on power purchase agreements and vesting contracts. In an attempt to analyse power purchase agreements, various models will be considered from Nigeria, South Africa and Malaysia. There is no doubt that the above agreements serve as the primary contract as regards contract that exist between the various players in the electricity industry. Notably, where contracts exist, there are bound to be possibilities of conflicts among parties. The resolutions of these conflicts become necessary in-order to facilitate continuous provision of electricity to consumers. In this respect, the function of the tribunal and appropriate processes for dispute resolution to resolve disputes present in the electricity industry will be analysed.

4.10 AN ANALYSIS OF POWER PURCHASE AGREEMENT

A Power Purchase Agreement (PPA) is a long term agreement between the owner of an electricity generating facility and the wholesale energy purchaser.³⁵⁶ This was also regarded as an instrument that secures the payment stream between the buyer "offtaker" (often a governmental electricity utility) and a private electricity producer for the build-own transfer (BOT), or a concessional project for an independent power plant (IPP).³⁵⁷ The PPA outlined here is not appropriate for electricity sold on the world spot market, but is focused on a base load thermal plant (the issues would differ slightly for mid-range or peaking thermal or hydro plants).³⁵⁸ A PPA can therefore be conceived as a contract between two parties involving a sales (project company) power generator and a sales (off taker) power-generator. The seller may be a public service or an independent source of energy in whole or in part. The Power Purchase Agreement (PPA) is definitely at the core of the long-term participation of the private sector. The

³⁵⁵UNDP (United Nations Development Programme), 2010. *Energy for Sustainable Future*. United Nations Development Program New York, USA.

³⁵⁶Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p. 773

³⁵⁷ See <https://ppp.worldbank.org/public-private-partnership/sector/energy/energy-power-agreements/power-purchase-agreements> accessed on 11th September 2018

³⁵⁸ Ibid

Notably, issues such as the length of the agreement, the commissioning process, the purchase and sale of energy and renewable energy attributes, price, curtailment, milestones and defaults, credit and insurance.³⁵⁹

In the words of Oke, a typical offtaker and producer must ensure that they are able to negotiate a PPA that reflects their respective expectations while also giving effects to their intentions.³⁶⁰

In particular, the power procurement agreements (PPAs) apply to power projects in which: the project's projected revenues are uncertain otherwise, and so there is a certain guarantee that the quantities acquired and the prices paid make the project viable, and competition from cheap or subvention domestic or international competition is possible (for example, in situations where a nearby power plant is produced).³⁶¹For instance, a government company can buy the power generated by a power station. The government would like to see how much he pays for his power and that he has the first invitation to do so. The project company wants income security and the buyer wants to ensure security of supply.

Finally, the disconnecting device must also identify the location of the energy supply. The location usually is based on which areas of the country require extra power. The place will be located close to substations and distribution lines, which will most effectively transport this energy to the end user. In the end, the power source will be located as close to the connection point of the electricity grid as possible by consumers (and producers) so as to avoid the costs and risks of building transmission infrastructure and loss of transmission lines. Additional questions which will be just as crucial as the place are: simple connections to the plant energy supply, prospective economic and cultural impacts on local populations by any power plant and the availability of effective or low-cost mitigants. For instance, in a remote area where there is no economically efficient gas source, a gas-fired power plant will be of little use. Some renewable energy sources, such as solar and wind, may be more suited to remote locations and will benefit further from the fact that carbon emissions are not

³⁵⁹Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p. 773

³⁶⁰ Ibid p. 774

³⁶¹ See https://ppp.worldbank.org/public-private-partnership/sector/energy/energy-power-agreements/power-purchase-agreements#where_appropriate accessed on 11th September 2018

increased. However, the thermal power sources are not equally predictable.³⁶² The selection of equipment for energy generation is crucial for the distributor. The price and efficiency of energy, as well as the economic and cultural effects of the venture will have an immediate effect.

The term of a PPA ranges from five or more years and is usually binding once it has been executed by the seller and the purchaser, but may also be subject to early termination.³⁶³

The models of PPA in selected jurisdictions will now be considered in details in the following sub-chapters.

4.10.1 South-Africa Model

PPAs are laid at the age of 20 years, which require the Single Buyer's Office of the domestic power supply company Eskom (SBO), to acquire electricity from qualification generators at pre-fixed rates PPAs for South Africa.³⁶⁴ The tariffs would be re-examined once approved annually for the first five years and each 3 years after that.³⁶⁵ In the tariff PPA contractual agreement between customer and vendor the previous important extractions of the Renewable Energy Feed include;³⁶⁶

i. The seller shall supply or procure all plants, equipment, consumables of machinery, components, materials and facilities as needed for Source Facility Construction; ii. On or before scheduled COD, which is specified as the first businessday from 00:00 hour after the day when the purchasing person is received by the seller's notification, the seller must reach a commercial operational date (COD); vii. Commercial Energy shall be paid by the buyer; and iv. The buyer will procure, mount, experiment, order, function and retain at the point of metering the measurement installation including readings displaying frequency, as a reasonable and prudent operator.³⁶⁷ In this respect, it will be essential to point out how Eskom has been obliged to buy electricity. Eskom was the purchasing agency for the REFIT system by the South African national power

³⁶²Notably, there is a very high level of unpredictability with wind and solar as a source of power

³⁶³Oke, Y. 2021, Nigerian *Electricity Law and Practice*, Princeton Publishing Company p. 774

³⁶⁴National Energy Regulator of South Africa (NERSA). 2009a. *South Africa Renewable Energy Feed-in Tariff (REFIT): Regulatory Guidelines*.

³⁶⁵ Ibid

³⁶⁶ Ibid

³⁶⁷ Alberta Energy and Utilities Board, 1999, *Decision U99113 Board Review of the Independent Assessment Team's Report on Power Purchase Arrangements and Other Determinations*.

regulator (NERSA). Section 15 of the Act enables NERSA to add requirements of permit related to the following: “i. The obligation of trading or generating, transmitting or distributing energy; ii. The individuals who have to or can buy or sell power to; and iii. The kind of power plants which generate, buy or sell electricity from.”³⁶⁸

The power of NERSA was critical to this strategy; however, the strategy would not be socially viable without the Eskom commitments to buy renewable electricity.

4.10.2 Malaysia Model

A power buying deal (PPA) can also be regarded as a contract with an autonomous power distributor (IPP) to sell energy, accessibility and other generation utilities. It is usually created between personal energy station holders and energy purchasers. This contract is commonly used in Malaysia in the market that is occupied in the single customer model in the electricity industry.³⁶⁹ This model emerged in emerging nations in the 1990s, in particular. In several nations, governments permitted personal investments to build power plants to relieve capacity demands while maintaining limited government funds.³⁷⁰

It is therefore essential to produce electric power and distribute same to the domestic utility company or the energy buying organization by the autonomous generators of energy (IPP's). In this respect, the IPPs carry out this by selling their production via long-term energy procurement contracts (PPAs), consisting of set capacity fees to safeguard buyers against business hazards.³⁷¹

The sole customer is the main buying corporation that can operate a transmission grid that performs the tasks of shipment and network monitoring or an embedded producing corporation.³⁷² PPAs can, however, also be used in more competing systems for the sale of electric power from a single IPP to an electrical wholesaler. In order to ensure the electricity needed to serve wholesale or retail agreements, the wholesaler could merge

³⁶⁸National Energy Regulator of South Africa (NERSA). 2009a. *South Africa Renewable Energy Feed-in Tariff (REFIT): Regulatory Guidelines*.

³⁶⁹Nurehan Othman, Nurehan. 2014. Improving electricity market model for Malaysia electric supply industry. Masters thesis, Universiti Teknologi Malaysia, Faculty of Electrical Engineering <http://eprints.utm.my/id/eprint/47995/> accessed on 11th September 2018

³⁷⁰Ibid

³⁷¹See

<https://www.parlimen.gov.my/images/webuser/artikel/ro/amy/Security%20of%20Energy%20Supply%2026%20September%202016.pdf> accessed on 11th September 2018

³⁷²Ibid

transactions under a variety of PPAs with place purchases and promotions. Therefore, PPAs can be discovered in every scheme that has an IPP.³⁷³

As Malaysia launched personal manufacturers in the production industry, the PPA was established as a procurement authority between the IPP and Tenaga Nasional Berhad (TNB). This contract is applicable for 21 years, the usual variety of which is 15 to 20 years. This Agreement clearly indicates a guaranteed return for low-risk IPPs to encourage more private investors to take part. The fundamental data in this contract consist:

- i. Meaning of terms
- ii. Developments, Acquisition and distribution of contractual ability and energy (in cogenerating and tri-generation crops, such as steam, warm air and/or cooled air)
- iii. Power plant operation
- iv. Power plant financing
- v. Performance guarantee
- vi. Punishments.
- vii. Payments (power fees covering the manufacturers' investment expenses, as well as power credits to meet the changes in supply in crop operations)
- viii. Major strength
- ix. Early termination default and
- x. Various
- xi. Conditions and terms

In the Malaysia Energy Service Innovator since 2001, the single customer model was introduced. Tenaga Nasional Berhad (TNB) is the energy supplier required to purchase power generated by Tenaga Nasional Berhad Generation (TNBG) and the electricity suppliers themselves. However, it should be noted that although IPPs have been implemented for generational rivalry, the conditions under which these IPPs have been implemented have no impact on actual rivalry in production.³⁷⁴ As an energy off-taker, the PPAs between IPPs and TNB ensured the IPPs had very little risk in their 21-year

³⁷³ Ibid

³⁷⁴ See

<https://www.parlimen.gov.my/images/webuser/artikel/ro/amy/Security%20of%20Energy%20Supply%2026%20September%202016.pdf> accessed on 11th September 2018

lives. The majority of PPAs are thus organized to include a two-tax deposit, capability payment and energy payment.³⁷⁵

In particular, the improvement of a good dynamic atmosphere in energy trading is an important part of reorganization. Trading in Malaysia, in this respect, does not contribute to transparent competitiveness in the electricity supply industry (MESI). This is because of the conditions laid down in the TNB-IPP Power Purchase Agreement (PPA). TNB is an electricity purchaser whereas IPPs are an electricity vendor. In other phrases, TNB is a prepared customer of electricity produced by IPPs and thus does not foster transparent rivalry between energy manufacturers. Therefore, IPPs have no option, except for TNB, to distribute their production. This has decreased IPPs' ability to provide immediately to neighbouring sector, and hence depends on a reliable single customer. Their income, for any payment contracted in the PPA, TNB is legally responsible. At the cost of TNB, who endured huge profit erosion because of their payment to IPP, many IPPs were reaping their earnings. Each personal producer earns income by a single customer system depending on the two PPA transaction kinds: capability delivery and power delivery.

4.10.3 Nigeria Model

In Nigeria, Power Purchase Agreements is usually undertaken by the Bulk Traders (NBET) on behalf of the country with the project developers which include the generation companies. In this regard, the Ministry of Finance stands as the primary obligor who must be able to ascertain the extent in which the government is capable of accommodating its financial obligations.³⁷⁶ The PSA is generally focused on a 20-year period of existence on plants, in particular.³⁷⁷ Regulation is a significant element of the Strengthening Agreement. In this respect NERC performs a crucial position and is responsible for the regulation of tariffs. NERC has a broad variety of responsibilities under the 2005 EPSR Act to lay down rules for the clean management of energy operations.³⁷⁸

³⁷⁵ Ibid

³⁷⁶ The views were expressed based on allegations of the termination of power purchase agreements by the Nigerian government <http://dailypost.ng/2018/03/16/finance-ministry-reacts-cancellation-power-purchase-agreements/> accessed on 11th September 2018

³⁷⁷ See <http://www.nercng.org/index.php/home/operators/renewable-energy> accessed on 11th September 2018

³⁷⁸ Ibid

Tariffs and regulations are an significant part of the NERC. This is usually an aspect that is vital to the power purchase agreements. As the cost of electricity in Nigeria is controlled and not determined by the market forces, the financial implications of the tariff is that NBET's sustainability problems occur as transfers to generation businesses continue to thwart electricity supply safety. In all of this, punitive measures are to be considered for future PPAs even if it involves an omission on the part of NBET to fulfil its mandates. In other words, if the system of price regulation becomes difficult to operate, positive efforts should be directed towards a realistic approach, allowing economic forces of demand and supply to be introduced into the market. The following provides an outline of the industry of production, transmission and allocation for their tariff.

4.10.3.1 Generation Tariff

The Long Run Marginal Cost (LRMC) technique is recognized as the methodology to be used.³⁷⁹The methodology of arriving at a tariff means calculating complete price of existence for the fresh incoming generator's lowest-efficient price, bringing into consideration present plant and machinery expenses, returns on equity, operations and servicing, business fees for gas expenses and transmission expenses.³⁸⁰If the machinery requests a surcharge over the LRMC, it reports to the NERC. Thus, for the purpose of establishing whether the generator can be subject to such a tariff, NERC shall submit the account for the company to scrutiny.

4.10.3.2 Transmission Tariff

Transmission network users have three tariffs to be paid by them: network link fees; device fee transmission; and loss of transmission.³⁸¹“When turbines are subjected to link fees, they are more probable to choose the places where these costs are minimised. Similarly, if they are subjected to the cost of transferring unit loss, they will have a suitable motivation to find in order to minimize the loss of communication.”³⁸²

The network link fee involves, if necessary, extra power conditioning units for transmission lines and roofs, turn yard and transformer to allow for secure and efficient

³⁷⁹See <http://www.nercng.org/index.php/home/operators/renewable-energy> accessed on 11th September 2018

³⁸⁰ Ibid

³⁸¹ MYTO II (Transmission)

³⁸² Ibid

electrical injection into the grid. The fee will only apply to expenses that arise between the location of the generator and the next unit to the network.³⁸³ The fee for transmission involves primarily investment returns, depreciation and installation and servicing, which is typically standardized throughout the industry. For power failures, the expenses of the distribution scheme "are small (or varying)," and the position of production in relation to charge centres, variations in load development and place of fresh power facilities "differ." The cost of operation is limited.³⁸⁴

4.10.3.3 Distribution/Retail Tariff

The sales price reflects "the full NESI supply chain's cost from natural gas (gasoline for power plants), from wholesale production to storage, delivery, measurement and accounting and ultimately for the customer."³⁸⁵ Therefore, the expenses of generator and transmission fees listed above, production costs, organizational fees (fees charged by NERC for unit operations, business operations and administrative charging), advertising, metering, accounting and income received, including losses that are technical in nature, trade deprivation and inventory losses are included in the expenses as defined in MYTO II.³⁸⁶ There is the present subsidy of electricity costs to be charged to sensitive customers.³⁸⁷

4.10.3.4 The Feed-In Tariff

The FIT was developed for electricity, solar, small hydro and biomass / biodiesel under MYTO II in accordance with NERC power.³⁸⁸ NERC establishes the tariff amount taking into account that the amount of FIT is tech-specific and depends on: crop investment expenses; operational and maintenance costs, petrol expenses (as appropriate); the cost of funding and return on assets spent; the plant's projected service life and plant capability. There has therefore been tariff differentiation and an examination of the tariff collection indicates that inflation is involved in the implementation of the system.³⁸⁹ Below are the various renewable power qualification

³⁸³ Ibid

³⁸⁴ Ibid para. 3.2.1.

³⁸⁵ MYTO II (Transmission) para. 3.2.2.

³⁸⁶ Ibid para. 3.2.3.

³⁸⁷ Ibid para. 3.2.

³⁸⁸ Ibid para. 3.2.

³⁸⁹ Ibid para 5.8

rates.³⁹⁰ NERC exercises the authority of delegated laws in the energy industry.³⁹¹In accordance with the EPSR Act 2005, NERC is restricted to the scope of its authority. The powers conferred on an entity that contravene the requirements of the enabling law will be invalid.³⁹²It may not be said that it applies to a complete FIT system that is currently to be implemented, as this will contribute to the amendment of the EPSR Act 2005. The NERC's competences are restricted to tariff setting. NERC must have the authority to do this in particular.

4.11 ANALYSIS OF VESTING CONTRACT

Vesting Contract is described as an agreement reached between a energy station provider (or sometimes buyer) and a controlled utility which usually indicates the long-term sales prices of the power plant to a controlled utility.³⁹³Contracts for vesting impose on companies generating electricity (investing contract level) at a specified price a contractual obligation for producing a certain amount of electricity (investing price). As businesses are considered reasonable, they will try to increase earnings by keeping the prices of their products above marginal cost when they are offered the opportunity to use their market power.

Moreover it is particularly susceptible to exploitation of the market power by the type of electricity generation and consumption. As a result, the supply lines and demand ratios are highly inelastic, allowing businesses to exert business authority as the failure to store energy cheaply except in hydro installations, and the restricted demand price-responsiveness of energy clients.³⁹⁴Cutting market power in attempt to encourage effectiveness and rivalry on the electricity market for the advantage of customers is the main strategy goal of the agreement system. Under the contracts for vesting, the generating companies shall undertake to sell the electricity specified at the specified price (viz. contract level for vesting) (viz. contract price for Vesting). This eliminates opportunities for generators to use their business energy by withholding their ability of generating place rates in the electricity wholesale sector.

³⁹⁰Ibid para 4.4.1.

³⁹¹MYTO II (Generation), para. 6.

³⁹²Ibid

³⁹³ Chang, Y. 2005. *Pricing Behavior, Market Power and Vesting Contract in a Deregulated Electricity Market*. The 25th Annual IAEE International Conference. Denver.

³⁹⁴Energy Market Authority.(n.d.).*Vesting Contracts*. Energy Market Authority: Available at: <http://www.ema.gov.sg/page/91/id:134/> Accessed on 15th April, 2018

In the case of Singapore, the energy market authority (EMA) has reviewed both the contract rate and the pricing conditions for each of the two years. The adjustment price is focused on long-term marginal costs ("LRMC"), which represent more than 25 times of the complete supply in electricity and take the main strategy goal account of the most effective transmission technology.³⁹⁵ The contract level is designed to effectively reduce the use of market power on the basis of projected supply and demand of electricity. The present level of Vesting is 55% of the complete prediction. The main benefits of contracts are:

- i. Eliminate all the lengthy debates on plant property, mainly political and contentious,
- ii. Transfer to the company of all the complicated, costly and burdensome plant operations and maintenance tasks,
- iii. return to the Company, including the circumstances on, all costly, difficult and not easy-to-resolve labour union relations; i. Time, ii. Time. Duration of production price, iii. Over the length of the overall production quantity,
- iv. Minimum quantity of annual, monthly, day, hour or immediate generation,
- v. the company's financing for a period, if any
- vi. Cases where the company can not comply with the contractual terms of punishment

4.11.1 Determination of Vesting Contract Level and Price

The disposal contract requires the payment of long-term marginal costs (LRMC) by a potential newcomer with the most efficient innovation that meets at least 25% of market demand and forecasted market demand. The agreement implies that the gaming system of Cournot is suitable for concurrent non-collusive relationships between generating firms.³⁹⁶

PPC is equal to the short-term marginal cost (SRMC) in a sustainable market as can be seen from Figure 4.9, as all companies' prices and quantities are fixed by QPC.

³⁹⁵Energy Market Authority. *Review of the Vesting Contract Level and Period Weighting Factors*. (2010).

³⁹⁶Energy Market Authority. 2012. Review of the LRMC Parameters for setting the Vesting Contract Price.

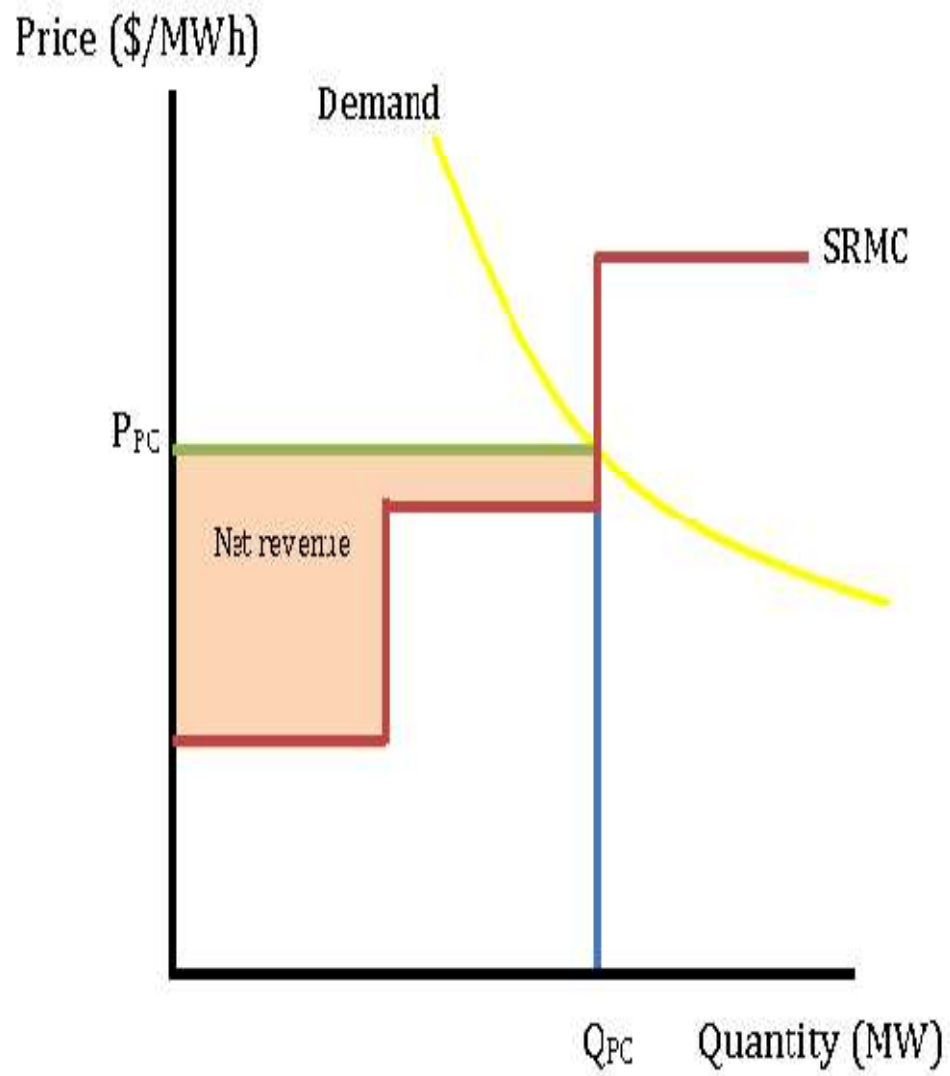


Figure 4.9: Competitive Market Solution

Source: Energy Market Authority, 2012

However, if a company decides manufacturing quantities depending on a Cournot system and is willing to affect prices by altering its output, it will suggest lowering them to QGAME, in order to maximize their profit as shown in figure 4.10, with the largest real profit from cost growth to PGAME and loss from volume reductions.

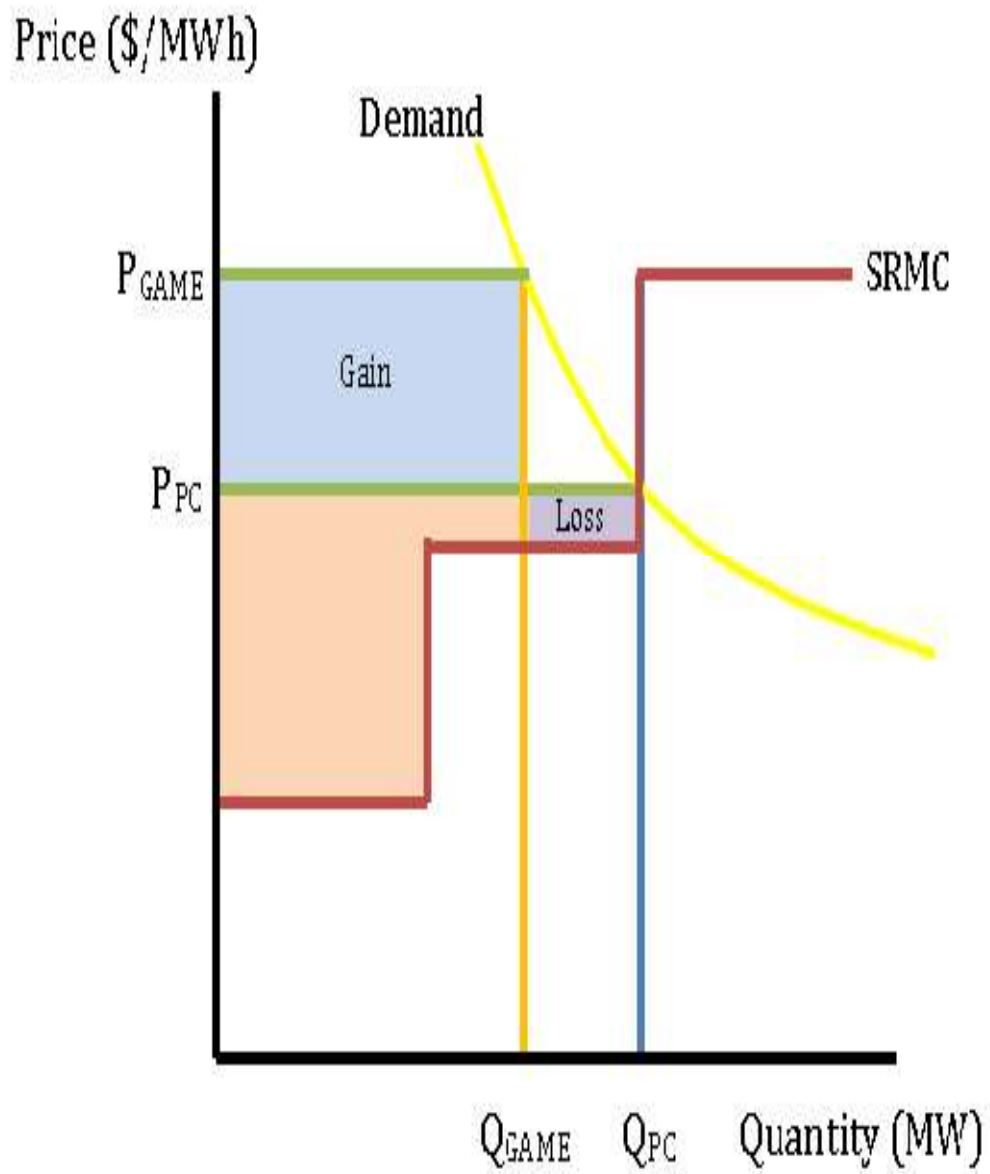


Figure 4.10: Gaming Solution without Vesting Contract

Source: Energy Market Authority, 2012

Consequently, vesting agreements are established and implemented to limit the firm's capacity to do so. The contracts set a price of 55 percent of PPC's projected energy demand in order to reduce the incentive for spiking market prices and quantities. The company will benefit less from affecting pricing in the same PGAME as it was in the Cournot model, as shown in Figure 4.11. In that case, the company can select only the level of prices below PGAME and the amount below QGAME, thus maximizing potential net profit and allowing the market to progress slightly towards a perfect result in competition.

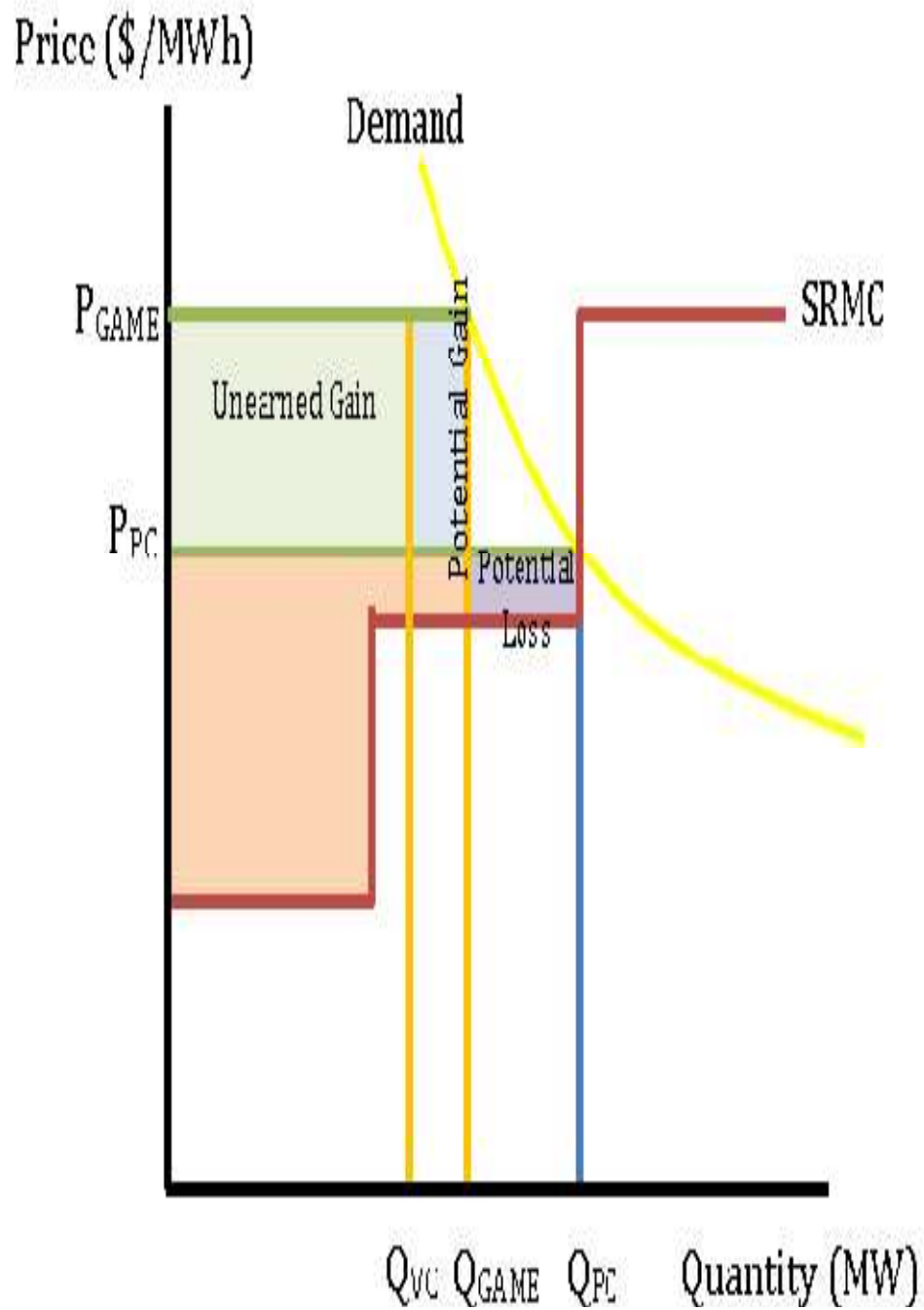


Figure 4.11: Gaming Solution with Vesting Contract

Source: Energy Market Authority, 2012

EMA has consistently updated its LRMC assessment and market demand to represent all appropriate data on involved generating firms and the business in attempt to guarantee that agreement execution is carried out. However, the contract cannot generate the desired result owing to its failure to predict correctly, although feedback can be fixed in the future.³⁹⁷

4.12 RESOLUTION OF CONFLICTS: THE ROLE OF THE COURT AND ALTERNATIVE DISPUTE RESOLUTION MECHANISMS

Conflict is, in particular, a universal characteristic of any community. It is therefore an aspect that must necessarily arise where obligations have been given for specific purposes. In the case of electricity supply, there is no doubt that issues related to generation and supply to consumers will cause conflicts. In this regards, it is important to ensure that such conflicts will be resolved amongst the parties involved. The identification of the sides to the dispute, the level of dispute between the sides and the problems (limited funds, unequal connections, conflicting beliefs) can differ and can be disputed over moment. Conflicts are vibrant when they escalate and decrease and form a complicated interplay of behaviours and behaviours which can take on their own realities. From the beginning, it is essential to remember how young domain researchers like Aureli and Smucny³⁹⁸ suggested that the first one should be ignored, while the second is an essential and valued phase of creativeness of humans between destructive and constructive conflicts. The latter is crucial, as the fields to prevent in the future are presented. Conflicts in the fields of "battles, matches and discussions" have been diversely described.³⁹⁹ This is still contentious. Some used "fighting," for instance, to describe both "consensual" disputes over concerns and "disputants" disputes over principles (disputants do not want the same stuff)⁴⁰⁰ Others however called previous ' conflicts ' requiring a solution and reserved for greater battles for unsatisfactory natural demands the word ' dispute, ' which involve a resolution.⁴⁰¹ For the effect of these studies, however, conflicts have been created to imply any kind of

³⁹⁷ Singapore Power.(n.d.). *Vesting Contracts FAQs*. From Singapore Power: <http://www.singaporepower.com.sg/irj/servlet/prt/portal/prtroot/docs/guid/00eab933-3772-2e10-5f89ac4dec9a05b9?spstab=Contestability> Accessed on 10th August 2018

³⁹⁸ Aureli F. and Smucny D. 2000. *Natural Conflict Resolution: The Role of Emotion in Conflict and Conflict Resolution*, pp 199-224. University of California Press.

³⁹⁹ Rahim M. A. 2011. *Managing conflict in organizations*. Transaction Publishers, 4th edition

⁴⁰⁰ Pruitt D. G. 2006. *The Handbook of Conflict Resolution: Theory and Practice*, Some Research Frontiers in the Study of Conflict Resolution, pp 849-880. Jossey-Bass, 2nd edition.

⁴⁰¹ Kreidler W. J. 1994. *Teaching Conflict resolution through children's literature (Grades K-2)*. Scholastic Inc.

friction or discord in a community when one or more leaders of the community have their convictions or behaviour challenged or are unacceptable to one or more of them.⁴⁰²

4.12.1 Conflicts in the Electricity Sector

The layout of effective economies that undoubtedly cause disputes is a noticeably important element for the electricity industry globally. The statutory conflict resolution processes are in this respect part of the regulatory scheme and a significant determinant of the hazards of personal investments.

There is no question that steady and inexpensive electricity supply is essential for development, wealth, domestic safety and the fast industrialisation of any company. It was reported that its Members expend approximately N2 milliard (approximately \$12 million) a week on median on self power generation by the Manufacturers Association of Nigeria (MAN) and the National Association of Small Scale Industries (NASSI).⁴⁰³ In a sequence of surveys of NOI Polls Ltd's energy industry for the second half of 2013, some 130 million of the 160 million Nigerians produced electricity through alternate fuels in order to compensate for their uneven electricity supply, accounting for 81 per cent. The research also found that the median total expenditure on alternate power production was 69% or 110 million Nigerians.⁴⁰⁴ Recent national statistics on the use of kits for generation have disclosed that some 60 million Nigerians spend N1.6 billion on annual generators by the Director-General of the Centre for Management Development, Mr. Dr. Kabir Usman. As a consequence of the failure of current facilities to satisfy the growing demands, the energy crisis has occurred. There are numerous explanations why the supply-demand gap exists: outdated, sloppy, 36% assembled, plant power is older than 20 years; 48% are over 15 years long and 80% 10, plant servicing is low and the effectiveness of management is low.⁴⁰⁵ The above are certainly considerations which could exacerbate disputes between the electricity stakeholders. Therefore, it will be demonstrated below that

⁴⁰²Kreidler W. J. 1994. Teaching Conflict resolution through children's literature (Grades K-2). Scholastic Inc

⁴⁰³See <http://www.vanguardngr.com/2013/02/the-challenges-of-the-nigerian-electric-power-sector-reform>

⁴⁰⁴Nigeria on the brink of electricity self- sufficiency This Day Live Tuesday 5 November 2013

⁴⁰⁵Adenikinju, A.F. 2003. *Electric Infrastructure failures in Nigeria: A survey based analysis of the costs and adjustment responses*. www.sciencedirect.com/science

some of the problems prevailing in Nigeria's electricity industry are the principal factors of conflict in the electricity industry.

4.12.2 Issues

4.12.2.1 Funding

There is no question that the energy industry is a capital-intensive industry. Thus, in the build up to the unbundling of the PHCN and its consequent sale, most of the investors had to resolve to obtaining credit facilities from the banks. The subsequent acquisition of the assets did not however produce the necessary profits. As such, many of the companies began to operate at a substantial loss. This no doubt led to the overwhelming burden of billing consumers in such a manner that was hurtful. This led to the common usage of the phrase “crazy billing” amongst consumers in Nigeria. The distributor businesses on the one side, and customers on the other, were in conflict with each other. The eventual result of the above is the usual and illegal disconnection of several consumers who have refused to pay the outrageous bills. Conflicts such as this are common and many are unaware of the right steps to take. In certain instances where complaints are made, it is expected that the consumer will pay a proportion of the contested bill prior to being considered for a review of the pending case. This no doubt reduces the confidence that consumers have in the distribution companies.

In addition, although the liquidity supplied by Nigerian companies was not adequate to monitor the rapid round anticipated in the industry, it was clear that borrowed loans and the action money disbursed by the federal government via the Money Deposit Banks were insufficient.⁴⁰⁶The Director General of Bureau of Public Enterprises has therefore acquired PHCN subsidiaries and has declared it necessary for distribution enterprises (Discos) to spend a total of 357.7 m in 2013 alone. Of the \$357.7 million, Abuja Disco is expected to invest 36.6 million dollars in this regard; Benin, 24.3 million dollars; Enugu, 27.2 million dollars; Ibadan, 33.86 million dollars; Jos, 12.75 million dollars; Kaduna, 29.96 million dollars; and Kano, 30.38 million. Others are the \$45.2 million Eko Disco, Ikeja, 58.74 million dollars, Port Harcourt and \$25.5 million and Yola, 13 million dollars.⁴⁰⁷Discos ' anticipated cost includes measuring, health, security and environmental practices, reducing client disruptions owing to network

⁴⁰⁶ Punch, December 26, 2013

⁴⁰⁷ Punch, February, 26, 2014

failures, fresh client links and network extension, enhancing client service and requests processes. In particular, some of the effective bidders failed to complete credits because the federal government still owes many. According to reports from the Nigerian Electricity Regulatory Commission, only three of the 11 energy supply businesses across the nation have so far transferred cash to the federal government.⁴⁰⁸ There is therefore no doubt that the pressure for funding will continue to cause untold hardships on the consumers who will in the cause of the ensuing conflict, continue to demand for justice amidst the cumbersome complaint procedures set up by the regulatory agency NERC.

4.12.2.2 Inadequate Gas Supply

The reorganization of the electricity industry is based on petrol use in electricity installations in attempt to satisfy the country's requirements. It was a big task that gas was made available to guarantee continuity in power supply. This difficulty is due to the insufficient fuel collection, handling and logistics facilities. The adverse effects on gas production by saboteurs and vandals affect gas availability. During the construction of infrastructure, gas supplies for power plants were not drawn into account. With this in mind, for example, the authorization by the Obasanjo Administration for the building of certain turbines as for Alaoji 1074 super watts (MW), Egbema 338MW, Geregu 848MW and Omotosho 786MW did not affect the gas delivery of these turbines. The result is that these crops remain unused forever after commissioning. Therefore, problems of insufficient gas for generating businesses lead to various types of dispute. There is therefore usually little or no guarantee that gas supply will be constant. As such, generation companies and gas suppliers usually have to resolve these conflicts to prevent shortage in the supply of electricity.

4.12.2.3 Consumers' Fraudulent Practices

Many electricity consumers have been ignored by the previous PHCN for absence of data or the effective consistency of questionable personnel. There are many illicit activities by many customers. Such illicit operations decrease the previous PHCN's revenue production. Leaving the fresh holders of the privatized PHCN unchecked, it will hinder the revenues. These violations have been committed in the event of consumers and utility workers using illegal connection to the line; short

⁴⁰⁸ Punch, February, 26, 2014

changing energy meters; injection of illegal substances into electricity meters; electronic metering of hole bores; or illegally assigning the consumer to quantities of energy units. It is therefore expected that this will lead to conflicts of interests as defaulters may usually be directly disconnected without giving regard to laid down procedures. Notably, disconnecting a consumer does not automatically recover funds. The best practice in this regard in resolving this conflict would have been to bring the parties together in a tribunal and where found guilty, necessary penalties should be awarded.

4.12.2.4 End User Tariffs

Effective electricity pricing is essential to a successful energy industry. Strong taxation directs business choices and is essential for regeneration of costs. It also tells customers about the price of low consumption and usually should encourage the appropriate use of the installed capacity. However, it is simpler than achieved to achieve effective price of electricity. The energy industry is defined by substantial fixed costs at the start and the ability to use them fully requires many years. Furthermore, expenses differ throughout daytime (peak / off-peak), seasonal periods (dry / rainy), customers (residential / commercial) and geographical regions, which should be considered when rates are established which support effective use.⁴⁰⁹ There is no question that electricity rates are presently lower than the cost of manufacturing in Nigeria. The sector is therefore hardly capable of generating sufficient income to satisfy its operating costs or even its significant investment requirements. New owners are facing a great challenge, because they cannot obtain public funds in the manner PHCN has done. There is no question that the impact this intervention will have on the businesses of production, transmission and generation, because officials have been tasked with fixing the tariff. The clamour for a market based tariff is therefore a huge conflict that must be resolved before it becomes escalated. Notably, efforts such as providing emergency funds which are being injected into the industry to placate the stakeholders does not seem sustainable and is also not a means to resolve the apparent conflict.

Despite this, the capacity of end customers to afford has to be taken into account in any strategy the current holders adopt. There is no question a very difficult technical nature

⁴⁰⁹Briceño-Garmendia, C.&Shkaratan, M 2011. *Power Tariffs: Caught between Cost Recovery and Affordability*. Africa Region Sustainable Development Unit .The World Bank WPS5904

to establish effective tariffs, as energy suppliers and governments are also at odds with the promotion of economic efficiency and social well-being. In particular, if income-induced organizations are to benefit from energy distribution, policymakers must put accessible prices below the cost of manufacturing or implement an implicit incentive scheme as observed by Borenstein.⁴¹⁰

To address this tariff issue, a dual function has been imposed on the Nigerian Electricity Regulatory Commission (NERC) to ensure that licensees' prices are fair and sufficient to allow licensees to finance their activities and allow them to earn and make a decent profit to operate effectively. The fresh tariff strategy, MYTO, has been created by NERC, called the Multi Year Tariff Order. It is a plan relying on income demands of the entire sector that calculates electricity rates. However, the practicality of the above approach has been tested and results indicate that the low tariff is still in danger.

4.12.2.5 Reconciliation of Assets and Liabilities of PHCN

One reason why it could not maintain itself is the lack of leadership of the unbundled PHCN by producing enough income to stay in service. There is therefore a problem that all of the former PHCN's assets and liabilities do not contain extensive data. The Nigerian Electricity Management Company (NELMCO) has established the Federal Government in a global attempt to resolve this dispute. It is therefore a Government Special Objective Vehicle which assumes and manages the remaining assets, liabilities and other obligations that cannot be readily transmitted to the successor Companies from PHCN. There are no doubts about the performance of property privatized between fresh shareholders and the Government, as the properties will need extra enormous investments to enhance their performance.

4.12.2.6 Workforce

It is no wonder that the previous PHCN staff were unwilling to privatize the industry. There was particular fear of having spent several years serving the business in the electricity industry as regards their future. In addition the delays in the pay, pensions, indemnities and other advantages entrusted to them had been concerned. Furthermore,

⁴¹⁰Borenstein, S. 2008. *Equity Effects of Increasing-Block Electricity Pricing*. Paper CSEMWP180, Centre for the Study of Energy Markets, University of California, Energy Institute.

problems which might raise more difficulties include worries about the requirements for selecting the old and the maintained. The above issues therefore necessarily created conflicts that had to be taken care of in order for the new companies to work smoothly. The resolution of this conflict was therefore a major concern which was resolved with the payment of huge severance packages to the dismissed staff which was an alternative that proved well managed rather than retain them since some of the perceived problems in the industry were the unproductive nature of the staff.

4.12.3 The Role of the Court

The method of settling conflicts between sides is conflict resolution. The court stands as an important institution that is central to resolving conflicts amongst parties. The role of the court in this regards cannot be overemphasized. In resolving conflicts that emanates from the electricity sector the court becomes an important institution that must be called upon. The court belongs to the judiciary, which is one of the arms of the government.⁴¹¹ The legislative authority of the federation will therefore be conferred on the judiciary concerned by Section 6 of the Constitution of the Federal Republic of Nigeria (as amended)...⁴¹². The Court therefore becomes the last point of appeal for Nigeria in order to solve conflicts in the electricity industry, following efforts to settle these disputes in the way set out by the NERC. The implication of the above is that, even though the court is recognised as the body responsible for conflict resolution, attempts to resolve conflicts are being made at the level of the regulatory body before such becomes escalated. This will give opportunities for the parties to attempt a reconciliatory move before embarking on the long processes of litigation which is not only costly but time consuming as litigants are allowed to appeal a decision that does not seem favourable up to the supreme court. This is not just an electricity conflict, but is also unique to cases like household disputes, big and small business claims and neighbouring neighbourhood border and other ownership disputes. There are powerful grounds for supporting and encouraging sides, particularly where emotional problems and legal problems are combined, to find a remedy through consensus if this alternative process follows the basic values of fairness.

⁴¹¹The other arms are the executive and the legislature

⁴¹²Section 6 goes further to highlight the courts specifically under sub section 5

In particular, the proceedings are started through the proceedings before the tribunal. In this regard, it must be accompanied by specific procedural rules, the finding and the submission of proof. The other side's advice would like to accept your affidavit to find out the information and your place in the situation as you see them. You and/or your counsel can certainly make a number of court appearances if the parties can not decide to settle the matter. Thus, by means of a lengthy court in Nigeria, the judge will decide the conflict for you. A court is an official judicial process which allows all problems between both sides, with each party introducing its complaint to a jury or to a judge to be examined and resolved in complete.⁴¹³ It is decided that the results of this situation are applied to the applicable law. The judgment may complete and be enforceable the arbitration method; however, a winner may transfer the judgment to the greater tribunal, where necessary. In certain circumstances, the losing party may be responsible for paying the costs of the lawsuit and paying the other party's legal fees.

Notably, electricity dispute is not a common phenomenon in Nigeria as there are sparse cases that can be referenced in this regards. The seemingly obvious one is the case of *Amadi v Essien*⁴¹⁴ which has been discussed earlier. Amongst others, the features of litigation are adumbrated below:

- i. Unintentional-The defendant (no option) is required to attend
- ii. Evidence and practice formal and organized guidelines
- iii. Each group can submit proof, reasoning and cross-examine the other
- iv. Public-hearings and documents of the tribunal
- v. Law is the basis of the judgment.
- vi. There is a right of recourse.
- vii. Losing parties may cover expenses

The above therefore gives an idea about the rationale for the preference in most instances for the adoption of the court in resolving disputes. It is believed that this will further help in the protection of consumer rights if the jurisprudence on electricity is

⁴¹³*Report on Consolidation and Reform of the Courts Acts (LRC 97-2010)*, at paragraphs 2.35-240, and sections 75 to 77 of the draft *Courts (Consolidation and Reform) Bill* appended to the Report.

⁴¹⁴(1994) 7 NWLR 91-203

broadened through court pronouncements rather than adopting the alternative means of dispute resolution. This has its merits no doubt as will be considered below.

4.12.4 Alternative Dispute Resolution

Alternative conflict settlement (ADR) is an approved and supported process by many organizations to settle disputes in the context of the provision of facilities by the sides. In this regard, it is an alternative means to approaching the court to settle the disputes. It is generally encouraged to ensure that matters are addressed promptly while guaranteeing fairness and equity.

In this regard, NERC has ensured that this process is fully incorporated and practicable in the administration of justice in the electricity sector among parties.

Thus, Nigeria Electrical Supply Industry (NESI) has been following the present trends in litigation conflicts.⁴¹⁵ Mechanisms of ADR like arbitration, mediation and conciliation are consequently more results-oriented and are provided for under the NESI market rules.⁴¹⁶ In addition to this and under the rules of the market, a Dispute Resolution Counselor (DRC) is assigned by the Nigerian Electricity Regulatory Commission (NERC) to administer the Market Rules' conflict settlement regulations.⁴¹⁷ Furthermore, after the strict testing method, NERC has named 12 representatives of the Dispute Resolution Panel (DRP). The DRP employees are experienced lawyers with knowledge of their different areas and their role is to listen to and fix conflicts.⁴¹⁸

The approach of ADR to dispute settlement is universal just like the court. Thus, a quick illustration of the three methods of ADR will be considered briefly before an analysis of the laws relating to dispute resolution mechanism in electricity matters as provided under the market rules will be considered.

4.11.4.1 Mediation

The mediation method was designed to be autonomous and to promote communication between the sides by an impartial individual (the mediator), enabling them to achieve

⁴¹⁵NERC, Dispute Resolution Panel <http://www.nercng.org/index.php/library/documents/Dispute-Resolution-Panel/> accessed on 14th September 2018

⁴¹⁶Ibid

⁴¹⁷Ibid

⁴¹⁸Ibid

mutually appropriate accord.⁴¹⁹ There are many negotiation terms, but most individuals believe that the aim of the method is to help individuals resolve a conflict voluntarily. In its easiest type, therefore, mediation can be said to be negotiated by a third party.

It is obvious in the application of this fundamental concept of mediation that individuals who cannot even realize they're involved in a mediation system use this method on a regular basis.

For instance, a manager can casually mediate a controversy between two employees or a sibling may mediate a conflict between two brothers. Such unofficial mediations are component and parcel of everyday lives. The Commission for Legal Reform considers negotiation, for the reasons of this study, to be an organized official method regulated by a collection of main values. The 2008 EU Directive on Mediation, which says it is an organized method, represents the concept of Mediation.⁴²⁰

Mediation is often regarded as the next phase if negotiations fail. The mediator therefore administers the method and facilitates negotiations between the sides. A mediator does not decide or enforce an arrangement in this respect.

The sides engage immediately and negotiate their own settlement or contract. The mediator will define the method and the laws of procedure at the start of the negotiation meeting. The sides or their lawyers can clarify their views on the conflict.⁴²¹ Mediation enables to deeper comprehend the point of perspective of each other. The mediator sometimes meets each party independently. Specific "caucusing" can assist you deal with mental and facts questions and enable room for legal advice from your lawyer.⁴²² In the department of the mediator or other accepted place, mediations are usually performed. If an accord is therefore achieved, it is usually limited to typing. Most individuals particularly maintain a facilitated contract because it is component of it. It can be a agreement and can be implemented. You haven't wasted one of your freedoms if there's no contract and can follow other alternatives, such as negotiation or court. Media may be used in most disputes, from consumer and

⁴¹⁹Legal Policy and Access to Justice through Courts and Mediation (1997-1998). 13 *Ohio State Journal on Dispute Resolution* 865.

⁴²⁰Article 3 of the 2008 Directive.

⁴²¹Menkel-Meadow, 1995. *The many ways of mediation: The transformation of traditions, ideologies, paradigms and practices* Negotiation Journal Volume:11 Issue:3 pp:217-242

⁴²²Legal Policy and Access to Justice through Courts and Mediation (1997-1998) 13 *Ohio State Journal on Dispute Resolution* 865.

trader disputes, landlords, residents, workers and staff, household groups in fields like, visitation rights, custody of child, matrimonial issues and care of the elders and testing, to easy or difficult company disputes or personal injury cases. Media may be used in most disputes.

In any point of the dispute mediation can be used as well as enabling the stipulation of an outstanding proceeding. It can therefore be used for conflict resolution in the electricity industry. This is an accessible method.

4.12.4.2 Conciliation

Conciliation is another method which can be used without being confronted by the Court to fix disputes. In a personal unofficial gathering to reach an arrangement, the disputed individuals discuss their problems as an alternate dispute resolution method.⁴²³ Conciliation in this respect lets you regulate the outcome of your conflict and is more probable to lead to an arrangement that will be appropriate to both sides.⁴²⁴ The Commission observed in its consultation paper in its study by the United Kingdom Law Commission that a conciliation clause can be discovered in a variety of legal decisions and regulatory tools, but that the word conciliation does not provide any description.⁴²⁵ The Commission therefore recommended in its consultation paper that:

“The conciliation scheme should be described as a consultative, consensual and private mechanism in which a friendly and autonomous fifth group is chosen by the sides to the conflict as an aid to reach a mutually appropriate agreed arrangement.”⁴²⁶

In addition, the United Nations Model Law on International Trade Conciliation 2002 provides for conciliation as Conciliation:

...“The method involves, either by conciliation of speech or mediation of comparable significance, requesting a party to help them in their attempts to resolve their conflict in a friendly manner

⁴²³ Conciliation. NCAT fact sheet, Consumer and Commercial division. http://www.ncat.nsw.gov.au/Documents/ccd_factsheet_conciliation.pdf accessed on 18th September 2018

⁴²⁴ Ibid

⁴²⁵ For example, the *Rules of the Superior Courts (Commercial Proceedings) 2004* and the *Rules of the Superior Courts (Competition Proceedings) 2005* expressly mention both mediation and conciliation, but do not provide any definitions of the terms. It must be assumed that those drafting the 2004 and 2005 Rules intended them to have different meanings.

⁴²⁶ LRC CP 50-2008 at 2.129.

resulting out of or concerning a voluntary or any other legal connection with third parties (the conciliator). The conciliator has no power to impose a remedy of the conflict on the sides”⁴²⁷

The wide scope of the concept shows that there is no purpose of distinguishing negotiation or conciliation between organizational types or methods. Notwithstanding the aforementioned, in Section 4 of the Model Law the differentiated procedure says that the conciliator may create suggestions for a resolution of the conflict at any point of the conciliation process.⁴²⁸ Similarly, in the United Kingdom, the Centre for Effective Dispute Resolution describes conciliation as a method where the neutral carries on a fairly militant position by proposing payment conditions or an assessment.⁴²⁹

It can therefore be proposed that the conciliator may be ascribed an interventionist function in maintaining that both sides are united and can create payment suggestions to sides that they may approve or dismiss. This distinguishes significantly between the positions of an arbitrator because a conciliator has no authority to enforce a resolution. Bunni observes:

“Conciliation is a method which is more official than arbitration and usually could require legal officials involved, rendering it a procedure that is more costly than negotiation. There is however the additional benefit of the conciliatory officer's obligation to try to convince the sides to acknowledge his own alternative to the conflict if no friendly compromise is reached.”⁴³⁰

Therefore, this complies with the suggestions previously suggested by the UK law committee that when the conciliation is provided in a legislative type, a consultancy and private organized mechanism should be established in which the sides are strongly supported by the independence of a third party called the Conciliator in their effort to achieve socially appropriate acts on a collective grounds. The conciliator may make a proposal to the parties in this context at any phase in the process of conciliation, but he is not empowered to impose a proposed resolution on the Parties.

⁴²⁷UNCITRAL Model Law on International Commercial Conciliation with Guide to Enactment and Use 2002 (United Nations 2002). Available at www.uncitral.org. See also Dobbins —UNCITRAL Model Law on International Commercial Conciliation: From a Topic of Possible Discussion to Approval by the General Assembly (2002) 3 PeppDispResol L J 529.

⁴²⁸Ibid at Article 6.4.

⁴²⁹See www.cedr.co.uk

⁴³⁰Bunni 2008. *The FIDIC Forms of Contract* (Blackwell Publishing 3rd ed.), p 445.

4.12.4.3 Negotiation

In general, negotiations are a way of settling disagreements and are seen as an alternate conflict settlement system. It is a method through which compromises or agreements are achieved while discussion and conflict are avoided.⁴³¹ Each individual strives to reach the highest result for their situation in any discrepancy.

Negotiation refers to the interaction process to promote individual interests by means of joint action. In company and our private life, the values that direct effective global agreements are similarly essential. There is no question that almost every transaction involves negotiation with another person. The communication between the conflicting sides in order to try to discover a remedy is back and forth.

The negotiation method generally includes the opportunity to negotiate with the other group straight. Alternatively, an Attorney's facilities can be regarded for direct negotiations with the other hand. Therefore, there are no special processes to be followed but it operates better if all sides decide to make their observations in order to ensure a calm atmosphere.

Consequently, negotiation usually enables immediate involvement by sides in decision-making. In most effective agreements, attempts are directed at finding the finest while taking into account the requirements and concerns of the other hand. A negotiated contract can therefore become a contract and can be enforced.

Consequently, negotiation is not a complicated method because it requires a daily method. In this respect, most individuals generally bargain with, for example, the cabman for a specific trip, a neighbour about the placement of a engine collection, a manager about a increase or a retailer about purchasing their products every day. In certain conditions, a lawyer's existence may be necessary for a reasonable agreement to be negotiated. The first way for issue fixing and attempting to achieve an internationally appropriate contract would be to consider negotiations considerably. Thus it can be used at any point in the dispute-at the end of a court even before or after the complaint is lodged, before the complaint is submitted.⁴³²

⁴³¹ Mediation brochure hand-out available at <http://Oblak.org>

⁴³² *Modern Law for a Modern Scotland: A Report on Civil Justice in Scotland* (Scottish Executive, February 2007) at 29

The features of negotiation are adumbrated below.

- i. Volunteer
- ii. Private and confidential
- iii. Speedy and low-priced
- iv. Informal and non-structured
- v. Parties control process
- vi. Parties may decide themselves and enter into personal resolutions
- vii. Discussed resolutions can be legally binding

4.12.4.4 Arbitration

Arbitration shall be submitted to an impartial (arbitrator) individual for a ruling in the contested case.⁴³³ In tradition, arbitration is a non-court approach to conflict resolution. The arbitrator oversees the method, listens and decides on both parties. Just like a court, there will only be one party. However, there are restrictions to the method unlike a court that continues to the greater judiciary after the appeal is commenced.

The arbitrator shall conduct a hearing in a more formal process at which documents, exhibits and testimonies are available to all the parties. The sides may decide to create themselves in some cases, or the required processes can be established by an administrator organisation. One arbitrator or three arbitrators can be a portfolio. If all sides have decided to be guided by the choice beforehand, the outcome can be permanent. In this context, in the circumstances, the right to appeal the decision of the arbitrator is limited. A grant of an arbitrator can be declared in trial and can therefore be enforced. Nevertheless, a ruling may become binding in non-binding arbitration, if all sides decide to recognize the judgment or if it can assist to assess the situation and act as a starting point for feasible settlement discussions.

Many agreements therefore have provisions requiring the arbitration of conflicts resulting from the agreement. Therefore, this method can be studied in situations where the sides have deemed that someone must decide the dispute without incurring

⁴³³*Dispute Resolution First Aid Kit for Attorneys* ABA General Practice Section, Introduction.(1988)

the cost of proceeding with the Court. There is, therefore, a binding arbitration agreement where such an arrangement is reached, implies that the arbitrator is entitled to create the ultimate choice and the privileges to a trials tribunal are revoked.

Notably, an arbitrator who is skilled in this sector is often selected in complicated and extremely technical instances. This is the practice that has been adopted by NERC in constituting the ADR panel members in the electricity sector. The features of arbitration are outlined below.

- i. It can be freely used
- ii. Private (unless the complaint is brought by the restricted tribunal)
- iii. Perhaps, relying on the relevant regulations of arbitration
- iv. Less official and organized than heading to tribunal.
- v. Typically fast and cheaper than heading to trial
- v. Each group has the chance to submit proof and argue according to the arbitration regulations.
- vi. You may be entitled to select an arbitrator with specialist knowledge.
- viii. The arbitrator shall take a choice which shall be ultimate and can settle the conflict.
- ix. In division, the grant of the arbitrator may be implemented. You still have the obligation to a court if you are non-binding.

4.12.4.5 An Appraisal of the Laws on Dispute Resolution in the Electricity Sector

In the case of conflict with electricity problems in Nigeria, there are copious clauses in the Act which allow the use of alternative conflict resolving mechanisms. In this regard, attention will be placed on two rules which detail the steps to be taken when it comes to resolving electricity conflicts. The first is the Business Rules 2006 while the second is the Market Rules 2014. These will be considered in detail.

The Business Rules 2006 is a regulation that was made by NERCas provided under section 96 (2) (a) of the EPSR Act.⁴³⁴ The purpose of this regulation is for the conduct of the proceedings of NERC and the discharge of its functions.⁴³⁵ Notably, while the rules provides generally for the general rules concerning meetings of and proceeding of the commission, investigation, inquiry and collection of information, it however provides for procedures that can be used in the arbitration of disputes under schedule I.

The foregoing thus implies that the guidelines chose for the settlement of conflicts in alternate conflict settlement classifications. The Schedule stresses the importance to refer to the Dispute Resolution Panel formed by the conflicts settlement committee through arbitration conflicts between licensees resulting from activities of the Market Rules and the Grid Code.⁴³⁶The provisions also state that the sides involved may refer conflicts resulting between licensees and customers and third parties to the committee for settlement.⁴³⁷The aforementioned conflicts were therefore removed straight from the application of the regulations for business. Basically, the Business rules contain other conflicts between licensees, or between licensees and customers, or between third parties referred to for arbitration by the Commission.⁴³⁸The timetable usually offers for the proceedings for the court of disputes and sets out that the committee may send the issue to the supreme arbitrator or court of three arbitrators with the required jurisdiction for litigation.⁴³⁹ Furthermore, it is expected that the arbitrator shall be independent and impartial in determining the dispute between the parties.⁴⁴⁰ The arbitration is expected to follow the procedures for adjudication, settlement and passing of award as contained in the rules. Notably, the passing of award is usually done within seven days and is considered as provisional because it is subject to the Commission's approval.⁴⁴¹ There is no doubt that instances where parties may tend to dispute the award may arise. Thus, in the circumstances, the Commission upon a request for a review, shall proceed to hear the parties on the award and shall make appropriate orders at its discretion.⁴⁴² No doubt, the Commission's power in the circumstances is considered to be final and no appeal may arise. Thus it is anticipated

⁴³⁴Act No. 6 of 2005

⁴³⁵Ibid

⁴³⁶Schedule I Rule 1 (1)

⁴³⁷Ibid Rule 1 (2)

⁴³⁸Ibid Rule 1 (4)

⁴³⁹Ibid Rule 2 and 3

⁴⁴⁰Ibid Rule 3 (2)

⁴⁴¹Ibid Rule 4

⁴⁴²Schedule I

at the end of the foregoing that all sides will respect the award and that the effective side to the grant will submit for the execution of the grant to the High Court in the case that one side does not fulfil the award.⁴⁴³

In accordance with Article 26 of the EPSR Act 2005, the 2014 Rules on the Market were adopted and provided that, for the establishment and governance of markets relating to electricity and ancillary facilities, the minister recommended that the President approve the market rules which are to be established for systems operators, for instance.⁴⁴⁴ The Rules therefore generally allow for the appointment of a Dispute Resolution Advisor to manage the dispute resolution provisions of the market rules and the Grid Code and to enable them to be administered and to ensure effective use thereof.⁴⁴⁵ Moreover, the regulations lay down that the Commission's responsibility for arbitrating and otherwise settling conflicts between the service provider, business provider or electricity licensee and any of the participants, and that Panel shall constitute the Dispute Resolution Panel, to the point that the conflicts comply with the requirements of those regulations or Rule 43 of the Grid manual.⁴⁴⁶

The rules provides specifically for the procedural requirements in relation to dispute resolution. Thus, unlike the Business Rules, it provides that a mediator, conciliator or an arbitrator can adjudicate in the circumstances⁴⁴⁷ by making use reasonably necessary measures where no procedures are provided under the Rules.⁴⁴⁸ The sides indicated in Article 43.2.1 are however bound to apply the dispute resolution operation as given in the regulations. These parties are mainly the System operators, Market operator or the Transmission Service Provider. In order to ensure adherence of any grant in accordance with Arbitration and Conciliation Act Cap. A18, LFN 2004, the Rules shall provide that any grant granted by an arbiter shall be final and conditional on the sides, and be enforceable as a grant.⁴⁴⁹ The above therefore reveals that there are in place mechanisms for the resolution of conflicts in electricity matters in the Nigerian Electricity Industry which is aimed at ensuring that a peaceful atmosphere exists for the smooth operation of the sector. No doubt, there have been concerns raised with the

⁴⁴³Schedule I Rule 6

⁴⁴⁴Market Rules 2014 Rule 1.3.1

⁴⁴⁵Ibid Rule 1.3.1 Rule 42.3

⁴⁴⁶Ibid Rule 1.3.1 Rule 42.3.7

⁴⁴⁷Notably, Rule 43.4 provides for Negotiation, Rule 43.6 provides for Mediation/Conciliation while Rule 43.7 provides for Arbitration processes

⁴⁴⁸Market Rules 2014 Rule 43.1.2

⁴⁴⁹Ibid Rule 43.2.4

above mechanisms and it has been suggested that a novel approach that considers the introduction of experts to determine disputes should be considered by NERC in future amendments.⁴⁵⁰ The above notwithstanding, the above mechanisms can be improved upon by ensuring that parties are constantly aware of this rules through regular awareness. This, no doubt will help to further strengthen the processes.

This Chapter sees electricity's statutory responsibilities in Nigeria and focuses on important tools such as the energy buy contract and the vesting agreements used in the industry to bind the sides to generate and provide energy to customers in Nigeria. It has been emphasized that in all nations distinct PPA designs are used worldwide, depending on the distinct conditions in these nations.

As the geographical framework of this dissertation, Nigeria, the most populated country-nation of Africa, is highly endowed with an array of power supplies that can produce electricity, both sustainable (Solar power, wood, wind and tiny and big hydroelectric) and non-renewable (crude petroleum, natural gas or carbon). One of Nigeria's several difficulties and issues over the past two centuries is the government's failure to provide sufficient, safe, stable and continuous energy supplies. Thus, attempts were made to introduce a legal framework that will assist in ensuring constant electricity availability and provision. In carrying out the numerous dictates of the law, it is envisaged that conflicts will arise between parties. This cannot be avoided in the circumstances because of the various contractual obligations that parties are expected to enter in the course of carrying out their mandates. Therefore, it is not strange that the legislation provided regulations for the settlement of conflicts which could occur in conditions, not simply for the tribunal but for multiple alternate conflict resolution processes. It is noted that there are very limited number of case laws that have emerged in the jurisprudence of electricity law in Nigeria. It is envisaged that in the coming years, parties will be more aware of their options to seek redress not only in the court but also through the available dispute resolution mechanisms. This will no doubt serve as deterrent for defaulters particularly those hindering constant supply of electricity to consumers.

⁴⁵⁰This position was canvassed by DrYemiOke in his work “ Prospects and Challenges of Expert Determination, Arbitration and other Dispute Resolution Mechanisms of the Nigerian Electricity Sector” published in Essays on Nigeria Electricity Law 2016 (Princeton and Associates)

The obligations that have arisen from the above are hereby reflected below for ease of reference. Notably, there are terms which are express while others are implied.

Generation companies

- a. Building, owning, operating and maintaining an energy generating plant.
- b. Selling power to individuals and various groups

Transmission companies

- a. To build, operate and maintain the grid within Nigeria or to link Nigeria with neighbouring jurisdictions.
- b. To operate the scheme and to acquire supplementary facilities
- c. Planning, engagement and shipment for generation
- d. Coordination of transmission timing and outage transmission
- e. Congestion leadership transmission
- f. Coordination of international communication
- g. Acquisition and scheduling of long-term capability auxiliary facilities and planning scheme
- h. Wholesale electricity market management including payment management exercise in accordance with the regulations of the business
- i. Other operations needed for a secure and effective scheme

Distribution companies

- a. The assembly, servicing and viewing of meters, billed and collected meters, and other transport services as may be designated to build, run and retain a transmission scheme and equipment including, but not restricted to the customer service to receive energy.
- b. To supply its distributor energy in accordance with trade license conditions

Consumer Obligations⁴⁵¹

1. Strictly depending on measuring before contact all fresh links must be made. In other words, there should be no fresh client linked by a DISCO unless a meter was first mounted.
2. Every customer has a right to a secure and secure electricity supply.
3. All clients are authorized to use a responsive and correctly mounted meter.
4. The freedom to be informed and notified about the energy system is a privilege of all clients.
5. The transparent electricity accounting is available for all clients.
6. All clients without measurement must issue electricity charges depending exclusively on the projected accounting methodology of the NERC.
7. The client has the option to receive written notification by DISCO that it serves the client, in accordance with the NERC rules before the electricity supply is disconnected.
8. All clients are entitled to refund if they are overcharged.
9. All clients are entitled to lodge claims and to proceed quickly.
10. The next company division of DISCO to serve the client is required to send all claims concerning the electricity supply and other factoring problems.
11. In the absence of an adequate claim, clients have a privilege to extend the matter to the NERC Forum Office, within the DISCO reporting region.
12. Customers have the power to challenge the judgment of the NERC Forum Office by composing a petition to the Commission.
13. The customer is entitled to challenge every proposal for electricity.
14. All unmetered clients who dispute their estimated bill are entitled not to pay the disputed bill; instead, they are only entitled to pay the last undisputed fact when the disputed bill passes through the NERC dispute settlement process.

⁴⁵¹See <http://www.nercng.org/> accessed on 6th December 2018

15. The electricity client and the society do not have any accountability for the purchase, replacement and maintenance of transformers, pole and associated electricity supply machinery.

There is no doubt that the above obligations which flow in both ways from electricity companies to consumers and from consumers to electricity companies are in place to ensure that societal order is maintained. This however, has not been totally achieved as certain obligations are constantly being evaded by licensed companies. An obvious instance is the case of metering of apartments which has continuously created confusion and burden on customers due to concerns of non-availability by distribution companies. Furthermore, in instances where transformers are faulty or destroyed beyond repairs, it is expected that the distribution company in charge of that jurisdiction will bear the cost. However, this has not always been the case as members of that community are usually pressured to fund the repairs or purchase as the case may be due to deliberate delays by the distribution companies. Once this is done, such purchases are usually reverted back as properties of the distribution companies as against the community who purchased same. In essence, the law is clear as regards the proper authority to manage and maintain such facilities. The above no doubt are therefore instances of clear breaches of express and implied obligations.

Court based sanctions are important to deal with infractions and to resolve disputes arising in the above circumstances. A closer observation of the above obligations reveals that there are emerging disputes with regards to huge estimated bills on customers without the pre-paid meters and communities whose transformers are either faulty or damaged. These are no doubt critical issues that are important in hindering stable electricity supply in Nigeria. Notably, enquiries from some concerned customers have revealed that in instances where the distribution companies impose huge estimated bills on them, they resort to paying some of it after they must have unsuccessfully appealed to the staff. This becomes necessary in order to avoid unwarranted disconnection from the cables. Thus, notwithstanding that procedures have been put in place for complaints, such are usually cumbersome and rigorous. The issue of transformer is also prevalent. It is no longer news that communities now engage in the purchase of new transformers or the repair of such whenever damage occurs. This step is also being taken in order to avoid continuous black outs due to the perceived delays that will accompany complaints to the distribution companies in

replacing or repairing the facilities. A study of the above obligations reveals that the facilities and its maintenance are the sole responsibility of the distribution companies. The liabilities are therefore not to be transferred to customers in any guise.

In several cases the courts have ruled that the electricity companies are charged with the responsibilities to manage efficiently the facilities that are being used in the supply of electricity to customers. Notably the matter of *Oluwole v PHCN*⁴⁵², it was observed that duties imposed on electricity companies which have technical attributes include duties of connection, disconnection, reconnection, reading of meters, repairs and replacements of obsolete poles and cables and prevention of danger to consumers and generality of public, billings and distribution of bills and collection of payments. Furthermore, the above position was also given validity by the court in the matter of *NEPA v Alli*⁴⁵³ where it was observed that it is the responsibility of distribution companies to manage, maintain and ensure the workability of the electricity undertaking efficiently.

⁴⁵² (2001) 37 W.R.N 101

⁴⁵³ (1992) NWLR (Pt. 259) 279

CHAPTER FIVE

SUMMARY AND CONCLUSIONS

5.1 SUMMARY

This study was motivated by the perceived challenges of the electricity sector which has hindered the provision of constant electricity supply in Nigeria. Nigeria's availability of electricity had been volatile for many years, and both families and shareholders were very concerned. In order to assess to what magnitude legislative bodies can be forced to encourage electricity supply in Nigeria, this thesis attempted an analysis of the current legal framework. Accordingly, it is anticipated that the research will address any current literature divide, and in line with the purpose of this thesis to examine the essence of the electricity regulation in Nigeria, assess the legal and institutional framework for controlling the availability of electricity in Nigeria and assess the statutory responsibilities of generator and delivery businesses in Nigeria. It should also assist the government and stakeholders to introduce policy measures which will enhance the electricity supply industry.

This chapter aims to summarize the study results on the basis of the above objectives. Furthermore, the recommendations of this thesis are presented in this chapter. Finally, this chapter will conclude by providing suggestions for further research.

5.2 CONCLUSION

The scope of this research has been to cover the legal aspects of security of supply with regards to electricity in Nigeria. Attempts were made to carry out a comparative study of the legal framework as obtainable in South Africa. This was achieved with regard to an outline of the South African electricity sector with an emphasis on their electricity supply systems. This presented an opportunity to highlight the gaps that are inherent in both legal frameworks and particularly with regards to Nigeria.

The research finds that there are indeed legal and contractual obligations in the sector for all stakeholders which are considered to be inadequate.

Due to constraints of space, resources and time, the legal framework and economic background of more countries with similar attributes would have been considered. It is

therefore suggested that for the purpose of future research, attention should be placed on that area.

In the course of this research, there were difficulties in obtaining information from several institutions due to the issue of trust. This is attributed to the perceived notion that such information may cause them to either lose their job or earn queries for disclosing same. Notably, attempts to convince some of the personnel in this regard are usually rebuffed. In some instances, where positive attention was granted, there were restraints in providing the necessary information and where such are disclosed, it is usually based on mutual non-disclosure principles. In this regard, the key actors are not ready to have their names in print as the person who supplied the information. The above, coupled with the availability of support through funding are part of the limitations experienced in the course of this research. It is expected that research and development will be encouraged in the energy sector to limit some of the highlighted issues.

5.3 RECOMMENDATIONS

In the light of the above, there is therefore a need for a strong institutional framework and legal framework that will ensure that the legal obligations are not just observed in breach but are capable to actualize the objectives which it was primarily made to do in the electricity sector. The various stakeholders have considered that the law can be used to achieve more in the electricity sector. However, it is not in doubt that several factors served as a form of setback in actualizing the ideal objectives of the law in this regard.

It is therefore recommended that the current legal framework should be amended to incorporate:

- i. That licences should be given to companies whose liquidity is not questionable and is guaranteed. This will no doubt be useful for the regulators in the granting of licences to bidders. It has been considered in the previous chapters that funding is an integral part of ensuring that the electricity sector is fully functional. An illustration in this regard is seen in the South Africa electricity regime that enhances the financial capacity of Eskom. The situation where bidders will rely heavily on the banks to fund their projects should be discouraged particularly at the initial stages. It is

- believed that this will encourage prospective bidders to pool resources together in order to make a bid.
- ii. That regular check must be made on all the facilities of the electricity companies. These include facilities in the generation, transmission and distribution of electricity. This responsibility must be strict to the extent that severe sanctions such as withdrawal of licence must be attached to failure to carry out this maintenance. Thus, it is expected that in the course of this exercise, facilities which are obsolete must be replaced. Thus, as long as companies are aware of these obligations, issues related to power generation, its transmission and final distribution will not be of concern any longer. It has been highlighted in the previous chapters that one of the fundamental issue bedevilling the electricity sector is the presence of worn out infrastructure. This will no doubt be taken care of in the circumstances.
 - iii. That energy mix should be properly identified and utilized in each state of the federation. It has been identified in the previous chapters that the concept of covering the field is in existence and has crippled the state government from making laws to generate and supply electricity to consumers within its reach. This will inevitably cover the shortage of supply that may have hindered constant supply of electricity in Nigeria. Notably, it becomes necessary in this regard, to ensure that full competition in all stages of electricity be allowed to begin once the above step is put into consideration.
 - iv. That consumer protection processes be simplified and further enhanced to allow faster access to justice. Resolution of conflicts has been identified in the previous chapters as a means to ensure that supply of electricity is not hindered in any guise. Notably, the notion of threatening and eventual disconnection of customers from the pole is an embarrassing situation that has befallen many customers who mostly are not the cause of the conflict in the first place. This scenario as identified is usually caused by billing customers excessively in what has been referred to as “crazy billing by most Nigerians.” It is observed that the law is in place to check the above excesses of the agents of the distributors. However, the law is silent on the punitive measures to be awarded to errant agents in this circumstance. A

sanction of immediate dismissal will therefore not be too heavy in the instance.

- v. A statutory and contractual based liabilities and sanctions which will cover all the stages of electricity processes from the generation phase to the distribution phase. This has been recognised in the previous chapters as the basis of all transactions in the electricity sector. The foundation is therefore an important aspect that should be reviewed as it regards sanctions. It is conceived that the sanctions are not properly managed and awarded as there are loopholes in the regulatory body that needs to be covered. It is not just enough in the above circumstance to fine companies, rather other sanctions must follow which may involve possible suspension or refusal to renew licences. It should therefore be important that the regulators must be checked by members of the public in this regard to ensure that cases of obvious disregard for statutory and contractual obligations are duly sanctioned.
- vi. That the regulatory powers be made to cover all energy related areas in the country. Notably, it is shown in the previous chapters that South Africa as presently constituted have in place a body known as the National Energy Regulator of South Africa (NERSA) who is in charge of regulating all the activities of the energy sector including electricity in South Africa. Its counterpart NERC as presently constituted covers only the electricity sector. The importance of regulating the energy sector is to ensure that the overall interest of achieving stable electricity is fully achieved. The regulator will therefore be strategically positioned to oversee available energy that can be utilised for electricity generation in Nigeria.
- vii. That research and development in electricity be fully funded to ensure that new technologies are introduced in the market for the purpose of enhancing the energy flow.
- viii. That economic based tariff is allowed to fully operate in the electricity market. The current trend where the federal government sets price should be completely discarded.

The above recommendations are therefore important measures that are not only economical in nature but also a legal step that should be considered. It therefore

becomes necessary that the above should be positively considered in future amendments in order to achieve stable supply of electricity in Nigeria.

5.4 CONTRIBUTIONS TO KNOWLEDGE

This thesis contributes to knowledge in the following ways.

- i. It analysed legal and contractual obligations in power sector supply chain.
- ii. It measured statutory obligations of power sector entities against performance
- iii. It benchmarked contractual obligations of parties in the power sector taking agreement with performances.
- iv. It devised simplified approaches for measuring legal and contractual obligations of the parties and entities in the power sector.

5.5 SUGGESTIONS FOR FURTHER RESEARCH

The focus of this study is exclusively on the legal obligations which paid attention on the legal framework of electricity in Nigeria covering the constitution of the Federal Republic of Nigeria 1999 as amended, regulatory legal framework being superintended by NERC and Subsidiary Regulations, Rules and Codes. However, there is a need to consider economic and political impediments as factors that can also aid stable electricity supply in Nigeria. Hence, inquiries into the above may be useful to determine the effectiveness of a possible removal of such impediments and recommendations on how to shield such from interference in the electricity sector towards ensuring stable supply of electricity.

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ANNEXURE 1⁴⁵⁴

GENERATION COMPANIES

Name	License Type	Site Location	Capacity
AES Barge Nigeria Ltd	On grid	Apapa, Lagos	270MW
Afam Power Plc	On grid	Afam, Rivers	987.2MW
African Oxygen & Industrial gases Ltd	Off grid	Ikorodu, Lagos	19MW
Agbara Shoreline Power Limited	On grid	Agbara, Ogun	100MW
Akute Power Ltd	Off grid	Lagos Water Corp.	13MW
Alaoji Generation Co. Limited(NIPP)	On grid	Alaoji, Abia	1074MW
Anita Energy Limited	On grid	Agbara, Lagos State	90MW
Azura Power West			

⁴⁵⁴<http://www.nercng.org/index.php/industry-operators/licensing-procedures/licencees?start=80>
accessed on 3rd March 2017 in a raw format and was re-structured into generation, transmission and distribution for ease of reference.

Africa Limited	On grid	Ihonvbo, Edo State	450MW
Benin Generation			
Company Limited	On grid	Ihonvbor, Edo State	450MW
Calabar Generation			
Company Limited	On grid	Calabar, Cross Rivers	561MW
Century Power			
Generation Limited	On grid	Okija, Anambra State	495MW
CET Power Projects	Off grid	WapcoEwekoro,Ogun	6MW
CET Power Projects Ltd	Off grid	Tinapa, Cross River	20MW
CET Power Projects Ltd	Off grid	Nigerian Breweries Ltd,	5MW
Iganmu, Lagos			
CET Power Projects	Off grid	WAPCO Sagamu, Ogun	7MW
Contour Global Solutions	Off grid	NBC Bottling Plant, Ikeja	10MW
(Nig) Ltd			
Contour Global Solutions	Off grid	NBC Bottling Plant,Apapa	4MW
(Nig) Ltd			
Contour Global Solutions	Off grid	NBC Bottling plant, Benin	7MW
(Nig) Ltd			
Coronation Power and	Off grid	Sango, Otta	20MW
Gas Limited			
Delta Electric Power Ltd	Off grid	Oghareki,Etiope West LGA	116MW
DIL Power Limited	Off grid	Cement factory, Ogun State	114MW
DIL Power Plc	On grid	Obajana, Kogi State	135MW

Egbema Generation Company Limited	On grid	Egbema Imo State	338MW
Egbin Power Plc	On grid	Egbin, Lagos State	1320MW
Eleme Petrochemical Company Limited	On grid	Port Harcourt Rivers	135MW
Energy Company of Nigeria (NEGRIS)	On grid	Ikorodu, Lagos	140MW
Energy Company of Nigeria Limited	On grid	Nestle, Ogun	3MW
Energys Nigeria Limited	On grid	Ado-Ekiti, Ekiti	10MW
Ethiope Energy Limited	On grid	Sapele, Delta State	2800MW
Ewekoro Power Ltd	On grid	Ewekoro, Ogun State	12.5MW
Farm Electric Supply Ltd	On grid	Ota, Ogun State	150MW
First Independent Power Co. Ltd	On grid	Omoku, Rivers State	150MW
First Independent Power Co. Ltd	On grid	Trans-Amadi, Rivers State	136MW
First Independent Power Co. Ltd	On grid	Eleme, Rivers State	95MW
Fortune Electric Power Co. Ltd	On grid	Odukpani, Cross River	500MW
Gbarain Generation Co.Ltd	On grid	Gbarain, Bayelsa State	225MW
Geometric Power Ltd	On grid	Aba, Abia State	140MW
Geregu Generation Company Limited	On grid	Geregu II, Kogi State	434MW

Geregu Power Plc (BPE)	On grid	Geregu, Kogi State	414MW
Hudson Power Limited	On grid	Warawa, Ogun State	150MW
Ibafo Power Station Ltd	On grid	Ibafo, Ogun State	200MW
Ibom Power Ltd	On grid	IkotAbasi, AkwaIbom	190MW
ICS Power Ltd	On grid	Alaoji, Abia State	624MW
Ikorodu Industrial Power Ltd	Embedded	Ikorodu, Lagos	39MW
Ilupeju Power Limited	Off grid	Ilupeju, Lagos	2MW
Income Electrix Limited	Off grid	NPA, PH, Rivers State	6MW
Island Power Limited	Embedded	Marina, Lagos	10MW
Isolo Power Generation Ltd	On grid	Isolo, Lagos	20MW
JBS Wind Power Limited	On grid	Mangu, Plateau State	100MW
Kaduna Power Supply Co. Limited	Embedded	KudendaInd.Area, Kaduna	84MW
Kainji Hydro Electric Plc (Jebba Station)	On grid	Jebba, Niger State	570MW
Kainji Hydro Electric Plc (Kainji Station)	On grid	Kainji, Niger State	760MW
Knox J&L Energy Solutions Limited	On grid	Ajaokuta, Kogi State	1000MW
Lotus &Bresson Nigeria Limited	On grid	Magboro, Ogun State	60MW
Mabon Ltd	On grid	Dadinkowa, Gombe State	39MW

MBH Power Limited	On grid	Ikorodu, Lagos State	300MW
Minaj Holdings Ltd	On grid	Enugu East LGA, Enugu State	115MW
Nigerian Agip Oil Co. Ltd	On grid	Okpai, Delta	480MW
Nigerian Electricity Supply Corporation (Nigeria) Ltd (NESCO)	On grid	Bukuru, Plateau State	30MW
Notore Power Ltd	On grid	Onne, Rivers State	50MW
Ogorode Generation Co. Ltd (NIPP)	On grid	Ogorode, Delta State	450MW
Olorunshogo Generation Co. Ltd (NIPP)	On grid	Oluronshogo, Ogun State	750MW
Olorunsogo Power Plc (BPE)	On grid	Oluronshogo, Ogun State	335MW
Omoku Generation Company Limited	On grid	Omoku Rivers State	250MW
Omosho Generation Co. Ltd	On grid	Omosho II, Ondo State	500MW
Omosho Power Plc (BPE)	On grid	Omosho, Ogun State	335MW
Paras Energy & Natural Resources	On grid	Ogijo, Ogun State	96MW

Development Limited

PZ Power Company Limited	Off grid	PZ Cussons, Abia State	4MW
Sapele Power Plc	On grid	Sapele, Delta State	1020MW
Shell Petroleum Dev. Co. Ltd	On Grid	Afam VI	642MW
Shiroro Hydro Electricity Plc	On grid	Shiroro, Niger State	600MW
Shoreline Power Company Limited	Off grid	Sagamu, Ogun State	9MW
Supertek Electric Limited	On grid	Ajaokuta, Kogi State	500MW
Supertek Nig. Ltd	On grid	Akwete, Abia State	1000MW
Tower Power Abeokuta Limited	Off grid	Abeokuta, Ogun State	20MW
Tower Power Utility Limited	Off grid	Ota, Ogun State	20MW
Ughelli Power Plc	On grid	Ughelli, Delta State	942MW
UnipowerAgbara Limited	Off grid	Unilever, Agbara, Ogun	6MW
Wedotebary Nigeria Limited	Off grid	Kuru Jos	5MW
Westcom Technologies & Energy Services Ltd.	On grid	Sagamu, Ogun State	1000MW
ZumaEnergy Nigeria Ltd (Gas Plant)	On grid	OhajiEgbema, Owerri, Imo	400MW
Zuma Energy Nigeria Ltd(Coal Plant)	On grid	Itobe, kogi State	1200MW

TRANSMISSION COMPANY

Name	License Type	Office Location
Transmission Company of Nigeria Abuja	Transmission	Zambezi street, Maitama-

DISTRIBUTION COMPANIES

Name	Site Location
1. Aba Power Ltd	Aba, Abia State
2. Abuja Electricity Distribution Co Plc	Loma-Mansa Street, Wuse, Abuja
3. Benin Electricity Distribution Co Plc	Akpakpava Street, Benin City, Edo State
4. Eko Electricity Distribution Co Plc	24/25, Marina Lagos
5. Energy Company of Nigeria Plc	Lateefjakande Road, Ikeja, Lagos State
6. Kano Electricity Distribution Co Plc	Niger street, kano, kano State
7. Enugu Electricity Distribution Co Plc	12 Station Rd, Enugu State
8. Gateway Electricity Limited	VI, Lagos
9. Ibadan Electricity Distribution Co Plc	Ibadan, Oyo state
10. Ikeja Electricity Distribution Company	Ikeja, Lagos State
11. Ikorodu Industrial Power Ltd	Ikorodu, Lagos State
12. Jos Electricity Distribution Company	Ahmadu bello Way, Jos, Plateau State
13. Kaduna Electricity Distribution Co. Plc	Nagwamatse Building Ahmadu Bello Way
14. Kano Electricity Distribution Co Plc	Niger street, kano, kano State
15. PH Electricity Distribution Co Plc	Rumuigbo, Port Harcourt, Rivers State
16. Yola Electricity Distribution Co	Atiku Abubakar Road Jimeta, Yola State