Investigating Federal Government's Marginalization of Northern Nigeria in Locating Power Projects: (2005 - 2014)

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Abstract: *This study is aimed at investigating the marginalization of Northern Nigeria in locating the Independent Power Projects (IPPs) and National Independent Power Projects (NIPPs) by the Federal Government of Nigeria as the main objective. The methodology adopted is secondary, where a sample of 133 IPPs and 53 NIPPs, giving a total of 186 samples were randomly selected for this study. The IPPs and NIPPs are part of the country's reform program and an in-depth understanding of the existing projects that will help inform critical decisions about Nigeria's electricity future, and are supposed to be under the Generation Companies (GENCOs), Transmission Company of Nigeria (TCN) and Distribution Companies (Discos) of the Power Holding Company of Nigeria (PHCN) planned to fast-track the current electricity situation in all parts of Nigeria. These are some of the projects designed to solve the many problems the electricity power sector is facing in Nigeria. All of these aspects of the reform are in various stages and phases of advancement, and are done with a view to achieving 23,000 Mega Watts (MW) of electricity from the dwindling 4,000 MW by 2010 and today we are in 2014 and only about 4,500 MW are achieved. Descriptive statistics was used in analyzing the findings, where one of the major findings was that, most of these IPPs and NIPPs were located in the Southern part of Nigeria. This paper recommends that Northern Nigeria should partner with the Federal Government on the way forward for compensation. Also, this paper concludes that Northern Nigeria is totally marginalized in allocating these IPPs and NIPPs.*

Keywords*: Distribution Companies (DISCOs), Generation Companies (GENCOS), National Independent Power Projects (NIPPs), Marginalization, Transmission Company of Nigeria (TCN).*

1. Introduction

Some called IPPs and NIPPs as Integrated Power Producers and Nigerian Integrated Power Producers, while others interchangeably called them Independent Power Projects and National Independent Projects (Agboola, 2011). In this study, we refer IPPs and NIPPs as Independent Power Projects and National Independent Power Projects. As a result of the power sector reforms, the following Nigerian power infrastructures were privatized: six generation companies (GENCOs); eleven distribution companies (DISCOs) and one transmission company (TCN). As at the time of the privatization, six GENCOs had a total installed capacity of 6,200 Mega Watts (MW) of electricity, eleven DISCOs had 5,758 MW installed capacities, which were being transmitted through 330kV, 132kV, 330 kV substation and 132kV substation lines. Under the GENCOs, 9 IPPs and 10 NIPPs when completed would increase the generation capacity by 22,867 MW and 5,454 MW respectively. The IPPs under the 11 DISCOs are 124, when completed would add 5,600 MW 5,600 MW to Nation's capacity. The NIPPs under the TCN are 43 and when completed would add to the capacity by 24,106 MW. From simple arithmetic, these IPPs and NIPPs would add a total of 58,027 MW of electricity to the Nation's 6,200 as at December, 2010. Yet as at 2015 the total capacity is less than 5,000 MW (Ikeme & Ebohon, 2005).

The Nigerian power sector operates below its estimated capacity (MW), with power outages being a frequent occurrence. To compensate for the power outages, the residential, commercial and industrial customers are increasingly using privately operated diesel generators to supply electricity. From 2004 – 2014, the total installed electricity capacity was 5.9 gigawatts (GW). Total electricity generation during 2004 – 2011 was 19 billion kilowatt-hours (Bkwh), while total consumption was 18 Bkwh. Only 40 percent of Nigerians have access to electricity, the majority of them are concentrated in urban areas overhauling of electricity energy supply industry known as ESI started in 1999. Major objectives of the overhauling process include: unbundling the utility NEPA into seven owned GENCOs, one Transmission Company (TCN and eleven DISCOs (Makoju, 2003; Achinaya, 2005; Sambo, 2008).

In 1999, during the administration of President Obasanjo, Hon. Minister of Power by then, Chief Bola Ige, told the nation that President Obasanjo's Administration inherited 4000MW of electricity, therefore,

within the first six (6) months, the capacity would be increased to 6000MW. Due to devastating situation of power in the country, the Obasanjo's Administration initiated the IPPs and NIPPs to assist NEPA/PHCN in its activities to add value to the power capacity situation (Ikwu, 2006; Gratwick and Eberhard, 2006). Independent Power Projects (IPPs) and National Independent Power Projects (NIPPs) are part of the country's reform program and an in-depth understanding of the existing projects that will help inform critical decisions about Nigeria's electricity future, and are located under the Generation, Transmission and Distribution Companies known as GENCOs, TCN and DISCOs (Discos) all are designed to fast-track Nigeria's Power Infrastructures at stages and phases of advancement, and are done with a view to achieving 58,027 Mega Watts (MW) of electricity from the dwindling 4,000 MW by 2010 (*Makoju, 2003;* Iwayemi, 2008 *Ekeh & James, 2007; 2014*).

The study is significant as the findings are expected to benefit the Federal, State and Local Governments and other beneficiaries of IPPs and NIPPs in Northern Nigeria. The study is also expected to be useful to professionals to assist in allocating the IPPs and NIPPs in more viable areas to boost the economy of Northern region. The findings are also expected to assist the researchers, students and academics so that they can make use of it as a reference material. Further findings are expected to expose the relevance of IPPs and NIPPs in Northern Nigeria in contributing to the growing literature on IPPs and NIPPs development for economic growth. The scope of this paper covers the location of IPPs and NIPPs wherever they are in the country as indicated in Tables 1, 2 and 3, respectively.

1.1 Problem Statement

Incessant power failure due to significant drop in electricity megawatt generation and high consumption level has forced the federal government of Nigeria to establish national independent power projects in different locations across the country to help in the generation, transmission and distribution of electricity supply in the country. This was aimed at improving the level of economic activity as the entire sectors of the economy relied heavily on electricity supply. Increased power output will therefore help stimulate the economy for sustainable economic development. In spite of the giant strides towards improvement on the provision of power supply in the country through this laudable initiative, locating the projects was marred with some primordial interest leading to lopsidedness in citing the projects thereby resulting in the marginalisation of some regions, and some corrupt practices associated with the establishment of the projects. This is what motivated the need for the study with a view to investigate the extent to which federal government has marginalized the northern region in locating the projects and to identify the number of the executed projects so as to show the level of marginalization. From the available literature, there is not enough studies in this field of study which is a serious gap that this study was designed to fill.

1.2 Research Questions

The study provided answers to the following research questions:

1. To what extent has the Federal Government marginalized Northern Nigeria in locating the IPPs and NIPPs?
2. How many IPPs and NIPPs are located in Northern Nigeria?

1.3 Objectives of the Study

The main of objective of this study is to investigate the marginalization of Northern Nigeria in locating Independent Power Projects (IPPs) and National Independent Power Projects (NIPPs) by the Federal Government of Nigeria. The specific objective is to identify the locations of the IPPs and NIPPs in Nigeria and Northern Nigeria to show the level of marginalization.

1.4 Statement of Hypotheses

Based on the objectives of this study, the following null hypotheses (H_0) were formulated and shall be tested:

***H_{01}**: Federal Government has not marginalized Northern Nigeria in locating the IPPs and NIPPs.*

***H_{02}**: Significant number of federal government's IPPs and NIPPs are not located in Northern Nigeria.*

2. Literature Review

2.1 An overview of the Nigerian Power Situation

Water shortages and maintenance issues continue to affect Nigeria's effort to produce electricity that is affordable, acceptable and economical to its citizens. As a result of this, China is becoming increasingly interested and involved in Nigeria's electricity power infrastructure developments. In early 2007, the Federal government of Nigeria (FGN) awarded China Gezhouba Group Corporation (CGGC) and china Geo-Engineering Corporation (CGC) a hydroelectric project contract with a view to putting Mambilla Power Station to action (Ekeh and James, 2007; 2014).

Mambilla Power Station when completed in 2012 as agreed by FGN and CGGC/CGC would increase the power capacity of Nigeria by 2,600 megawattas (MW) to the national grid. In addition to Mambilla Power Station, China's EXIM Bank, Su Zhong and Sino Hydro have committed to funding the Zungeru Hydroelectric Project, which when completed would increase the electric power capacity by 950 MW (Makoju, 2003).

Most of the electricity power in Nigeria are hydro (water) and gas are driven energy. Nigeria is the largest oil producer in Africa, with approximately two-thirds of Nigeria's production capacity located onshore, while one-third is located offshore. In 2007, Nigeria had 36.2 billion barrels of proven oil reserves, which the FGN planned to expand its proven reserves to 40 billion barrels by 2010. The majority of these reserves are found along the country's Niger River Delta, Southern Nigeria and offshore in the Bight of Benin, Gulf of Guinea and Bight of Bonny. Nigeria has total production capacity as at 2010 of three million barrels per day (bbl/d), provided total potential production capacity if all oil currently shut-in came back on line (Achinaya, 2005; Federal Ministry of Energy, 2008).

Hydro (water) used to generate electricity; the dams had been without dredging for long, the gas used to generate electricity power, also, had been left to flare. These two scenarios were the case of the incapability of Nigeria's electricity power to supply enough electricity till date. To remedy the situation, Nigeria thought of introducing IPPs and NIPPs as back-up to compete with the existing current trend in electricity power generation to serve as a saviour to the Nigerian economy by the Civilian Administration of Mr. President, Olusegun Obasanjo (Ikwu, 2006).

2.2 Electricity Supply and SMEs Development

According to the World Bank Report (2008; 2013), to encourage African economies, resource allocation must be given specific priorities on capital budgeting, such as infrastructure. In addition, in Nigeria, statistics show that small and medium-sized enterprises (SMEs) are the highest employers of labour, but face major constraints on their growth to sustain their businesses that needed electricity supply (Agboola, 2011). In the theoretical levels of Albert Hirschman's theory of unbalancing development, he stated that the unbalancing development can be used to justify or signify the treatment of electricity power as a leading sector whose expansion promotes and assists the development of other sectors, as no less developed country (LDC) has the capability and sufficient resources to invest simultaneously in all sectors of the economy (Hirschman, 1958).

3. Research Methodology

The study is a survey approach which is descriptive and exploratory in nature with data drawn from Independent Power Projects (IPPs) and National Independent Power Projects (NIPPs) offices in Abuja. The choice of Abuja was in view of the fact that it is the headquarters. As indicated in Tables 1, 2 and 3, the population of the study were 176 NIPPs and IPPs (124- IPPs, 9- DISCOs and GENCOs, as well as 43- NIPPs and TCN) randomly selected using purposive sampling. The sources of data for the study were obtained through both the primary and secondary data. The primary data were collected through a combination of techniques: questionnaires, personal interviews, focus group discussions and observations. Questionnaires were administered to the small independent entrepreneurships in Kaduna, Kano and Jigawa of Northern Nigeria. In the case of small independent entrepreneurships, personal interviews, focused group discussions and observations supplemented the questionnaires while, the secondary data were obtained from various sources such as publications from the Central Bank of Nigeria (CBN) and Non-Governmental Organizations (NGOs), the small independent entrepreneurships' publications, relevant published materials like books, journals, magazines and newspapers. Relevant materials were also sourced from Weekly, Monthly and Yearly Returns from Bureau of Private Enterprises

(BPE) and Power Holding Company of Nigeria (PHCN), as well as National Electricity regulatory commission. The data were analyzed using simple percentages and t-test to describe the degree of marginalisation.

4. Results and Discussion

4.1 Data Presentations

The results in Table 1 show that of the one hundred and twenty four (124) IPPs, only 58 (46.77 percent) were allocated to Northern Nigeria. Fourteen (14) IPPs were allocated to Jos and Kaduna, seventeen (17) to Kano and thirteen (13) to Yola Distribution Companies.

Table 1: Independent Power Projects (IPPs) Under Distribution Companies (DISCOs)

DISCO	No. of IPP	Installed Capacity	Project due date
Abuja	0	515	-
Benin	7	392	Dec.2010
Eko	12	796	Dec. 2010
Enugu	14	612	Apr. 2011
Ibadan	33	878	Apr. 2011
Ikeja	0	854	-
Jos	14	378	Dec. 2011
Kaduna	14	344	Apr. 2011
Kano	17	365	Apr. 2011
P/H	0	486	-
Yola	13	138	Dec. 2011
Total	**124**	**5,758**	

***Source**: PHCN DISCOS 2014; NB: P/H = Port Harcourt the 124 IPPs When Completed would add 5,600 MW to the Nation*

The results in Table 2 reveal that of the forty three (43) NIPPs under Transmission Company of Nigeria, only seven (7) were allocated to Northern Nigeria. This indicates that only 16.28 percent were allocated to Northern Nigeria.

Table 2: Forty three (43) NIPPs Under Transmission Company of Nigeria (TCN)

State	No. of Power Stations	Capacity (MW)
Southern	36	19,852
Northern	7	6,252
Total	**43**	**26,104**

***Sources**: Bureau for Public Enterprises (BPE), CSL, Niger Delta Power Ho lding Company (NDPHC) Limited*

The results in Table 3 reveal that the nine (9) IPPs proposed by the Federal Government, all were allocated to the Southern Nigeria. None was proposed and allocated to Northern Nigeria.

Table 3: Independent Power Projects (IPPs) Under GENCOs

S/N	Power Plants	Capacity MW
1.	2005 PHCN/ NELMCO Generating Capacity	3,213.49
2.	Refurbishable PHCN/NELMCO Capacity (presently not added to grid)	2,325.8
3.	IPPs in Existence in Nigeria	750.8
4.	State Government IPP in operation	36
5.	Proposed State Government IPP	140
6.	Proposed PHCN/NELMCO operated power plants	5,412
7.	Proposed Niger Delta Power Plants	2,625
8.	Proposed IPP by IOCs in Nigeria	3,790
9.	Proposed IPPs by Private Investors	4,574
	Total	**22,867**

***Sources**: PHCN, 2014 NB: NELCOM; International Oil Companies (IOCs): NB – All Allocated to South.*

4.3 Test of Hypotheses

***H_{01}**: Federal Government has not marginalized Northern Nigeria in locating the IPPs and NIPPs.*

***H_{02}**: Significant number of Federal Government's IPPs and NIPPs are not located in Northern Nigeria.*

Table 4: Paired Samples Test

	Paired Differences			T	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean			
Marginalization of Northern Region by the Fed Govt in NIPPs and IPPs	2.12942	.33494	.02862	74.413	136	.01

***Source:** Computed by the Author*

From the Table 4, t-test statistics was used to compare the mean response on the degree of marginalization of Northern region. From the respondents' mean scores as seen on the table, the test has a significant probability 0.01 (p-value) which is remarkably less than the significance level of 0.05 and hence we reject the null hypothesis and concluded that the Federal government has marginalized Northern Nigeria in locating IPPs and NIPPs and thus, there is the need for government to revisit the issue by locating more of such projects across states in the Northern region to ensure equity, justice and fair play. In line with the analysis and objectives of the study, the null hypothesis 2 is accepted based on the results in Tables 1, 2 and 3 which concludes that significant number of Federal Government's IPPs and NIPPs are not located in Northern Nigeria.

4.4 Major Findings

Findings from Tables 1-3 indicate that the Federal Government has marginalized Northern Nigeria in allocating the IPPs and NIPPs. The involvement of IPPs and NIPPs in 2004 by the former President Obasanjo, should have increased the capacity of electricity to Nigeria by 2010 to 60,183 MW from 6,200 MW, yet Nigeria's power infrastructure are not meeting the demand of its valued customers despite the enormous amount of money spent on these projects. The findings in this paper showed that the expected total generating capacity by December 2010 for the IPPs and NIPPs under GENCOs, DISCOs and TCN should be 60,183 MW of electricity in Nigeria as against the 4,800 MW as highlighted in Tables 2, 8, 9 and 10 respectively. Also the result in Tables 2, revealed that out of 124 IPPs from the 11 DISCOs, 58 were located in Northern Nigeria, while 66 in the South. Table 8, revealed that out of the 10 IPPs from GENCOs, 1 was located in the North, while 9 in the South. Table 9 indicated that six generation companies were sold to six private companies. Many of these IPPs and NIPPs are not completed, while some have been abandoned, especially the ones under the Distribution Companies (DISCOs) in the Northern Nigeria. This is in addition to marginalization in the allocation.

5. Conclusion and Recommendations

5.1 Conclusion

The main of objective of the study is to investigate the marginalization of Northern Nigeria in locating Independent Power Projects (IPPs) and National Independent Power Projects (NIPPs) by the Federal Government of Nigeria, Based on the findings of the study, we conclude that Northern Nigeria has been marginalized in allocating the IPPs and NIPPs by the Federal Government due to the lopsidedness in the distribution of the projects which did not favour the Northern part of the country. The implication to the study is that the northern part being the most populated region in the country will continue to remain in the dark due to inadequate electricity supply that may affect manufacturing activities and other small scale businesses that might have adverse effect on the economic activities of the region which may lead to business failures, factory closures, unemployment, poor standard of leaving and subsequently increased in social vices. There are some limitations of the study; the main limitation encountered in this study was

the lack of disclosure of vital information by the relevant organs which inhibit the study as enunciated in the research objective.

5.2 Recommendations

Some recommendations were made, among which is for the Federal Government to:

1. As a matter of urgency, try and quickly bridge the gap in the allocation of IPPs and NIPPs in Northern Nigeria. This will boost electricity supply and economic activities in Northern Nigeria.

2. There is the need for Federal Government to revisit the issue of NIPPs by allocating more of such projects across states in the Northern region to ensure equity, justice and fair play.

3. Well to do Northerners should compliment government efforts by venturing into the establishment of NIPPs so as to contribute their own quota towards the development of the region.

5.3 Suggestions for Further Studies

Similar study can be replicated to investigate the situation in other regions of the country. Also, research on the state of the IPPs and NIPPs can be conducted by other researchers to really ascertain the viability or otherwise of the projects as it will go a long way in providing government of the day the necessary guide on how the project will become a huge success.

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