

Public- Private- Partnership Policy: Proposed Nigerian Reform Programme for Electricity Development

Marcus, Samuel Nnamdi¹, A'sesan Ayodele², Iwu Hyacinth Nnaoma³

¹*Department of Economics, Achievers University Owo, Ondo State, A'sesan Ayodele*

²*Department, of Economics Achievers University Owo, Ondo State, Iwu Hyacinth Nnaoma*

³*Political Science Department Achievers University Owo, Ondo State*

The study examines the public private partnership policy in Nigeria as a panacea to the development and management of electricity in Nigeria. The study is descriptive and its objective is proposing an alternative policy that will ensure the sustainable development of electricity in Nigeria. The heavy presence of government in energy development did not seem to encourage desirable development in the sector. The SAP, Vision 2010, and NEP 1999 proposed deregulatory approach relying on private sector led development approach for the development of utilities. The NEEDS 2004 clearly and specifically proposes the PPP approach under the deregulatory devices. PPP as a contractual arrangement between the public and private sectors operators constitutes an approach to achieve well defined and shared objectives in a well-managed, cost-effective, efficient and sustainable manner, hence, is considered in the paper. Findings suggest that forms of the PPP are given for consideration to bail Nigeria out of the impacts of poor quality, unreliable and limited availability of power-supply, presumed partly due to government led-development approach. The paper contains some policy issues such as the encouragement of private sector participation in the provision of energy infrastructure within the public- private- partnership policy (PPP) framework.

Key Words: Reforms, electricity development, public- private- partnership policy

Introduction


In the quest to optimally develop and manage Nigeria's electricity resources, equitably allocate and effectively utilize them to accelerate the rate of national development, production, allocation and utilization of machineries are strictly tied to the use of energy particularly electricity in Nigeria, like it is globally. This linkage therefore explains the centrality of electricity in the process of national development. Noel and Shabib (2011) argue that with the passage of time as rapid development and technological innovation has taken place the utilization of energy resources has also mounted. Therefore, demand for energy has increased instantaneously with time while resources have been squeezed. Given the complexities and sophistication of recent development trend, the world is witnessing rapid growth of explosive interest in electricity supply matters and the policy instruments for its effective development and management to avoid or eliminate electricity poverty (shortages of electricity supply).

Prior to the mid-1980s economic reform period in Nigeria designed to avoid electricity (energy) poverty, development approach like it was in most African countries, was couched under the establishment of Public Enterprises (PEs) for the development, management and allocation of energy resources. Such established PEs were seen as major instruments for the mobilization, allocation of public investment resources, employment generation, income redistribu-

tion mechanism, the determination of government finances and the acceleration of the over-all pace of economic development. Thus, under the regulatory policies of that period, by Special Ordinances, Legislative Acts or Decrees, energy resource development became exclusively reserved for state monopolies under the management of PEs. In this regard, it started with the Electricity Corporation of Nigeria (ECN) and Niger Dams Authority (NDA) in the 1950s – 1960s. The ECN and NDA became merged under the National Electric Power Authority (NEPA) in 1972. However, NEPA has metamorphosed into the Power Holding Company of Nigeria (PHCN) within the policy reform period.

In spite of the policy efforts made to avoid electricity poverty in Nigeria, the country has suffered significantly from the impact of poor quality, unreliable and limited availability of electric power supply. This situation has constrained the development aspirations of the country. Against this background the NEEDS document (2004) remarks that "Low quality and unreliable electricity supply constitutes the biggest bottleneck of business growth in the country" .

Corresponding author: Marcus, Samuel Nnamdi, Department of Economics, Achievers University Owo, Ondo State, A'sesan Ayodele. Email: marcus2001ng2000@gmail.com

 This article is distributed under the terms of the [Creative Commons Attribution License](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted use and redistribution provided that the original author and source are credited.

Much of Nigeria's electricity infrastructure was built in the 1970s and 1980s. There has been since then under-investment and poor quality of spending has resulted in poor access and low quality of available power sector capacity. Given this unpleasant situation, the critical issues currently relate to: i) for how long will Nigeria remain in electricity poverty amidst primary energy abundance? ii) what policy decision is necessary to reverse this situation under the ongoing reform policies?

In recognition of the importance of the responses to the above questions if Nigeria is to progress, this paper proposes to focus on the policy application of the Public-Private-Partnership (PPP) within the Nigerian electricity sector to make under-investment in rehabilitation and maintenance, under spending on new investment and poor quality of spending, all culminating in poor access and low quality of available power sector capacity things of the past in Nigeria. One major issue for consideration in the investment stream needed to provide sufficient electricity supplies in Nigeria, is public private partnership arrangements (Udo, Chuku and Ekpeno 2011). The paper is in 6 parts. Following the introduction is part II which examines electricity status under PEs reform policies. Whereas part III is on the operational conceptualization of PPP and its theoretical framework, part IV presents the methodology while part V is on PPP types & their operational framework and then conclusion and some policy issues comes up in part VI.

Electricity Supply Status under PEs Policy Reforms

As earlier noted, it was ECN and NDA in the 1950s and 1960s that was responsible for the development of electricity in Nigeria. The merger of ECN and NDA culminated in the establishment of NEPA in 1972. However NEPA has metamorphosed into PHCN since 2003. More than four decades in the reliance on PEs, public expectation in the PEs were largely unmet. Besides, they remained under the protection and patronage of government within the then public sector-led development paradigm. The serious negative impacts of global economic crisis of the 1980s on the Nigerian economy sensitized the policy makers, economic planners, researchers and professionals in Nigeria to realize that the public sector-led development approach was no more feasible and sustainable. This new thinking therefore propelled some radical economic adjustments documented in SAP (1986), Vision 2010 (1998), NEP (1999) and NEEDS (2004) calling for deregulatory devices in the process of national development.

Towards this end, the commercialization and privatization of PEs gained ascendancy in the policy-making process. This attracted the promulgation of Decree No. 25 of October 1988 which had ever since been modified several times. This policy shift centres on more efficient utilization of available resources, efficient operations, self-reliant, self-financing and

self-sufficient approaches in the management of public business enterprises. Incidentally about another decade into this policy shift, the populace continuously expressed their dissatisfaction with its outcome. For example, Ayodele (2005) showcases NEPA (PHCN) as recording negative developments within the reform periods. In fact, the NEEDS document 2004 states that:

"In spite of recent efforts, Nigeria lags significantly behind comparator countries on access, quality and affordability of electricity supply..."

Per capital electricity consumption in Nigeria in 2009 was below 150kwh compared to over 4513 kwh of South Africa. Besides, Kuchi (2013) asserts that only 40 million Nigerians have access to power with most of the citizens numbering up to 120 million not having access to electricity. The World Bank record (2007), shows that Nigeria's generation capacity is 6000mw while energy output is only 3,000 mw and demand is estimated to be about 10,000mw. These explain why generation facilities are in poor shape and therefore rarely operate at capacity. Transmission and distribution networks are poorly maintained and inefficiently operated. Ugwu, Nwankwojike, Ogbonaya and Ekoi (2012) attributed the present electricity crisis in Nigeria to transmission and distribution loss and under-utilized capacity. Additionally, low tariffs coupled with high level of losses in the system mean that the sector is not financially viable. Olivia (2013) state that, this electric power supply crisis in Nigeria is not insurmountable, with careful planning and the design of an effective structure of incentives for the private sector IPP players, strategic and transparent execution of public sector power projects and the continuing focus on the pivotal role that adequate and reliable energy supply plays in industrial production, and hence, economic growth and development.

In order to remove the constraints militating against the achievement of sustainable and affordable electric power supplies in Nigeria, more comprehensive reforms in the sector have been articulated. The goals of the reforms as stated in the National Electric Power Policy (NEPP) include:

- i. the improvement of the efficiency and affordability of electricity supply;
- ii. the encouragement of private sector participation and competition;
- iii. the attraction of investment;
- iv. the establishment of an independent regulatory agency to ensure level playing field for all market participants;
- v. provision of conducive environment for long term development of the power sector.

A critical examination of these objectives shows that the reform is to ensure that Nigeria has an electricity supply industry that can meet the needs of the citizens in a globalizing world.

Given that the privatization, guided privatization and commercialization policies under deregulatory devices had all failed, the Public Private Partnership (PPP) programme has been proposed as a way out.

The Public- Private- Partnership Operational Conceptualization and Theoretical Framework

It is apparent from experience that neither the public sector alone nor the private sector could be relied upon to solely be accountable for the development of electricity support infrastructural requirements. The realities of these thoughts culminate in the idea for a concerted partnership between public and private sector operators as a possible way out of the development doldrum. In this regard, PPP is seen as:

One of the new trends in partnership strategies and it is being popularized as an alternative approach to the delivery of goods and services (NISER, 2005).

In a critical analysis of PPP, Oni and Akinbinu (2005) technically perceive the concept as:

“contractual arrangements between the public sector and the private sector to achieve well-defined and shared objectives in a well-managed cost effective, efficient and sustainable manner”

That is, PPP involves the sharing of resources, knowledge and risks of development between the public and private sectors respectively. operators so that both sectors and the country at large could ultimately benefit from the synergy of efforts.

Theoretically the policy is founded on the Mansfield model (1983) which attempts to resolve the failures of the conservatives-cum-Liberals models respectively on the reliance on the private and public sector operators. Mansfield (1983) developed the thesis on his observations on the society emphasizing: i.) the co-existence of the private and public sectors in the society; ii.) that there could be certain things which the public sector could do which the private sector might not be able to do vice-versa; iii.) that both sectors are partners in the progress of the country.

Given these observations particularly as they relate to mixed economic systems, both sectors could be conceived as partners in progress and could therefore join forces together to move the economy forward desirably under carefully worked out operational framework.

Methodology

The thrust of this paper is on the review of existing literature and theory of public- private partnership to enhance the development of electricity in Nigeria. Analysis, arguments and conclusions were based on secondary source of information from texts, Nigerian Institute for Social and Economic Research, National Planning Commission Nigerian Economic Society,

and World Bank and Google Search Engine, and academic journals.

Public- Private- Partnership Types & Their Operational Framework

Admittedly, the PPP model relates to a combination of two sectors probably with inconsistent goals. For example, the public sectoral goal focuses on efficient delivery of services to the populace with or without profit. However, that of the private sector operator relates to profit maximization under any circumstance. In recognition of this conflicting goals, two issues become necessary for clarification to make the model desirably effective, particularly, in the energy sector. The two issues relate to: i.) the type of applicable PPP suitable for energy development; ii.) the appropriate operational framework for effective co-operative working arrangement.

According to Solomon, Opawole and Akinsiku (2012) PPP is suitable for all types of infrastructural projects. What needs to be done is to ensure that all the success factors responsible for successful implementations of PPPs are well structured in a way that its optimum performance can be.

Dahiru (2012) observe that PPP regulation exists within ever changing social and economic conditions, and therefore, it must be both adaptable and predictable at the same time. World Bank 2006 (as cited in Dahiru 2012) suggested that the best way to avoid getting poorly performing PPP regulatory systems is to subject them to ongoing and periodic reviews to make sure they are fully functional and reflective of social and economic realities, and help to achieve the government's objectives.

Types of Public- Private- Partnership

Table 1 presents few varying types of PPP from where an energy reform planner can make a careful choice. However, a careful selection of an appropriate type of the required PPP is a function of some factors which relate to:

- i. knowing the position of the country on the global development spectrum;
- ii. socio-economic conditions of the country;
- iii. analysis of the socio-economic problems which each PPP form would be helpful in solving;
- iv. the structures and peculiarities of the public and private sectors; and
- v. a critical but careful comparism of all types of PPP.

Table 1: Types of Public Private Partnership

Types of PPP	Features	Example
Operations and Maintenance	The government contracts with a private partner to operate and maintain a publicly owned facility.	A broad range of municipal services including water and waste water treatment plants; solid waste removal; road & parks maintenance; public infrastructure and building projects including roads and highway, electricity projects etc.
Design – Build	Government contracts with a private partner to design and build a facility that conforms to the standard & performance requirements of the government. Once built, government takes ownership and is responsible for the operation of the facility.	Most public infrastructure and building projects e.g. roads, highways, water & waste water treatment plants, sewer and water system, arenas, swimming pools, other government facilities including energy facilities.
Turnkey Operation	Government provides the finances for the project but engages a private partner to design, construct and operate the facility for a specified period of time. Performance objectives are established by the public partner which maintains ownership of the facility.	Applicable where the public sector maintains a strong interest in ownership but seeks to benefit from private construction and operation of a facility e.g. infrastructural facilities (as shown above).
Wrap Around Addition	A private partner finances and constructs an addition to an existing public facility. The private partner may then operate the additional facility for a specific period of time or until partner recovers the investment plus reasonable return on the investment.	Infrastructural facilities e.g. roads, water systems, water and waste water treatment plants, recreation facilities (ice arenas and swimming pools) and electricity facilities.
Build-Own-Operate Transfer (BOOT)	The Private developer obtains exclusive franchise to finance, built, operate, maintain, manage and collect user fees for a fixed period to amortise investment. At the end of the franchise, title reverts to a public authority.	Most public infrastructure services and facilities including electricity facilities, water and wastewater systems, recreation facilities, airports, government administration and operations buildings, parking facilities and solid waste management facilities.
Build-Own-Operate (BOO)	The government either transfers ownership and responsibility for an existing facility or contracts with a private partner to build, own and operate a new facility perpetually. The private partner generally provides the finances.	Most public infrastructure and facilities, including electricity facilities, water and wastewater systems, parking facilities, recreation facilities, airports, government administration and operations buildings.

Source: Adapted from PPP Guide for Local Government, Ministry of Municipal affairs, B.C. Computed in NISER (2005)

Operational Framework

For an effective cooperative togetherness of the two sectors the reform planner would need to work out a working framework between the two sectors. The togetherness would be couched under an effective and operational legal, social, economic and competitive framework in the production and management of affected energy supply services. Some elements in the framework could include: i) rules relating to the security of affected unit of energy development; ii) establishment of standards for the quality of energy products within the co-existing system between the two sectors; iii) provision for price and quality regulations in the cases of social, economic, political or natural monopolies; and iv) establishment of a reward system where efficiency is rewarded and in-efficiency penalized.

Conclusion and Some Policy Issues

Apparently, firms (both public and private) that are currently involved in the development of electricity under the reform programmes in the country include Bureau for Public Enterprises (BPE), Energy Commission of Nigeria (ECN), Rural Electricity Agency (REA), Power Holding Company of Nigeria (PHCN) and the IPPs. Against this background, there should be functional allocation among these electricity agencies within the selected PPP framework. Box 2 shows a possible format of a proposed functional allocation among the existing agencies in the process of the application of the PPP methodology in the electricity sector.

2: Proposed Functional Allocation among Electricity Agencies

No	Name	Category	Functions
1	IPPs	Private	Electricity generation, transmission and distribution.
2	ECN	Public	i. Energy data storage ii. Data information dissemination
3	BPE	Public	Transferring plant ownership to IPPs
4	NERC	Public	Electricity development supervision – monitoring the adequacy & appropriateness of reform policy implementation; encouragement of competition; setting appropriate tariffs and their sustenance and the coordination of energy activities
5	REA	Public	Supervision and monitoring of rural electrification programmes
6	PHCN	Public	Ownership ceded to IPPs for power generation

To make for effectiveness and easy implementation of policy programme, it would be necessary for government to embark on the following policies soonest possible:

- i. the privatization of key infrastructural services to allow for effective service provision within the energy sector;
- ii. the enactment of relevant laws for the improvement of competition in the energy sector with respect to power service delivery;
- iii. the encouragement of private sector participation in the provision of energy infrastructure within the PPP framework;
- iv. the prevention of power line vandalization through effective policing of the powerlines;
- v. proper education of both the public and private operators on the utilization of PPP projects in the country; and
- vi. quick issuance of operating licenses to willing IPPs.

References

- Ayodele, A. 'Sesan (1996): 'Public versus Private Sector Roles in Economic Management'' NCEMA Seminar Paper.
- Ayodele, A. 'Sesan (2005): 'Rebuilding and Sustaining Nigeria's Energy Sector' NCEMA Workshop May 9 – 16, 2005, Ibadan, Nigeria.
- Dahiru, A. (2012) Assessment of Public-Private-Partnership Regulatory Framework for Infrastructure Development in Nigeria *In: Laryea, S., Agyepong, S.A., Leiringer, R. and Hughes, W. (Eds) Procs 4th West Africa Built Environment Research (WABER) Conference, 24-26 July 2012, Abuja, Nigeria, 451- 461.*
- Galbraith, J. K.(1978): *The Affluence Society*, 3rd Revised Edition; New York: New American Library.
- Kuchi, Z (2013, June 6) One Hundred And Twenty Million Nigerians Without Electricity. *National Mirror*. Pp 1-2
- Mansfield, E. O. (1983): *Principles of Micro-economics Readings, Issues and Cases.*
- Noel, A and Shabib, s (2011) An Empirical Analysis of Electricity Demand in Pakistan. *International Journal of Energy Economics and Policy Vol. 1, No. 4, 2011, pp.116-139*
- NES, (1991): "Public Enterprises in Nigeria." NES Annual Conference, Sokoto, June.
- NPC (1998): *The Vision 2010.*
- NPC (2003): *The Nigerian Economic Policy, 1999 – 2003.*
- NPC (2003): *National Economic Policy, 1999 – 2003.*
- NPC (2004): *Nigerian Economic Empowerment & Development Strategy (NEEDS)*
- NPC (2004): *National Economic Empowerment and Development Strategy,*
- Olivia, P (2013) Nigeria: Electric Power Sector Report 2013. <http://www.marketresearch.com/Olivia-Phillip-International-Consulting-Limited-v2691/Nigeria-Electric-Power-Sector-7672701/>
- Oni, B. & Akinbinu, B. (2005): *Public-Private-Partnership in the Nigerian Development*, NISER and SISERA
- Onosode, (1984): *Onosode Presidential Commission-A Report*
- Samuelson, P.(1983): "The Economic Role of Private Activity" In E. Mansfield Ed. *Principles Micro-economics Readings, Issues and cases.*
- Solomon Olusola Babatunde, Akintayo Opawole, Olusegun Emmanuel Akinsiku, (2012),Critical success factors in public-private partnership (PPP) on infrastructure delivery in Nigeria, *Journal of Facilities Management, Vol. 10 Iss: 3 pp.212 - 225*
- Stigler G, (1983): "The Government of the Economy: A Dialogue on the Proper Economic Role of the State" University of Chicago, Graduate School of Business: Selected Paper No. 7.
- Udo, E, Chuku, A. and Ekpeno, (2011) The Dynamics of Electricity Demand and Consumption in Nigeria: Application of the Bounds Testing Approach. *Journal of Economic Theory* 3(2): 43-52, 2011
- Ugwu, H,U, Nwankwojike, B.N, Ogbonnaya, E.A and Ekoi, E.J (2012). Energy and Economic losses Due Constant Power Outages in Nigeria. *Nigerian Journal of Technology (NIJOTECH)* 3(2).
- World Bank, (1995): *Bureaucrats in Business: The Economics and Politics of Government Ownership.* Washington, D.C. Oxford University Press.