

# PRIVATISATION OF ELECTRICITY AND SOCIO- ECONOMIC DEVELOPMENT IN AKURE, NIGERIA



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**A**bstract: Electricity supply by PHCN in Nigeria was unsteady, ineffective, inefficient and intermittent resulting in persistent power failure. In a bid to improve the power supply, the Federal government privatised the power sector. This paper examined the impact of privatisation of electricity on the socio-economic development of Akure urban city. The research methodology consisted of the distribution of 200 questionnaires through systematic random sampling of one in every five flats. The streets of Isolo, Arakale, Oba-Adesida and Oke-Ijebu were consequently examined using 50 questionnaires in each of them. The result revealed that privatisation had not improved the power supply which has a deteriorating effect on the socio-economy as follows: generators were used to supplement power supply with a resultant increase in prices of goods and services thus inflicting hardship and poverty on the people; power had affected home equipment negatively and reduced effective working hours. More People resort to the use of old and obsolete bulb which consume more of the available electricity. The paper therefore recommended dynamic legal system that can stimulate investment in the power sector. The paper concluded that socio-economic development of Akure can be greatly enhanced with effective, efficient and reliable power supply which privatisation is capable of ensuring.

**key Words:** Privatization, Electricity, Socio-Economic, Development, Urban City.

## INTRODUCTION

The provision of abundant, efficient and effective electricity supply is an essential factor in promoting infrastructural development of a nation to a viable standard of living. Passionate electricity advancement and research provide cheaper power for industrial machines, home appliances, private and public lighting that reduce bills of power consumption in industries and households which bring social and economic benefits.

In Nigeria power development has been facing some challenges that does not make the country to attain the desired height. The electricity distributing companies for instance are encumbered with increasing demand in contrast to the dominated erratic power supply that witnessed

high irregularity. The power supply to the grid is as low as 40% which is insufficient to provide adequate, steady and efficient electricity supply (Onochie et al, 2015).

The power generating, transmission and distribution companies are owned by government and are faced with many problems that include outdated equipment and poor maintenance, in adequate technical workers, inadequate financial resources, increase in population without proportionate plan for increase in power supply etc. In order to combat these problems, the government established decrees, reforms, policies, invested large sum of money etc to boost power generation

for economic development but little had been achieved.

Energy play a vital role in poverty eradication, security of the nation and consolidation of economic growth to the cognizance of its essentiality in long term availability, accessibility and environmental sustainability. In order to attained this, it is a necessity for government to stimulate power industries to grow out of government policies and reforms and to give room for its growth to match population increase as well as providing synergy for private participation and investment. Hence the government decide to privatize the power sector of the economy with the aim of moving it forward. The power sector had been privatized for more than two years, this paper want to examine the progress made so far and their contribution to socio economy development Akure urban city in Nigeria.

## LITERATURE REVIEW

In Ogedepo, O.S. (2015) "Energy and Sustainable Development, The Way Forward". He identified energy crisis in Nigeria and the use of generators in supplementing electricity shortage which escalate the cost of goods and services and also cause the emission of green house gases which compounded environmental pollution. He observed that Power Holding Company of Nigeria (PHCN) had failed to provide the minimum acceptable international standard of electricity for the past thirty years of its operation with thermal and hydroelectricity plants. The Power Holding Company of Nigeria (PHCN) had been persistently incapable of providing energy viability for economic realization despite the huge amount expended on it. (Ojo, I.C, 2012). He explained that Nigeria has abundant supply of renewable energy (solar, wind, tidal and biomass) which can be harnessed to boost the existing unreliable energy source to a promising energy

boom. As energy is a prime requirement for propelling economic and national development, and millennium goals, government needs to put its continuous availability and accessibility in her essential commodities' list. No country in modern times has succeeded or substantially reduce her entangled poverty without adequately increases the provision and use of her energy resource in making material progress. Rosen M.A. (2003). He therefore concluded that energy demand was high and the population was geometrically increasing while supply remain in adequate, insecure irregular and was decreasing with time. Since there is a clear evidence that Nigeria is blessed with renewable energy potentials, the government must promote and develop renewable energy to the extent of moving the country out of crisis to abundance.

In Ohanjianya et al (2014), in his research erratic power supply in Nigeria: causes and solution. He explained that erratic power was the bane of economic and industrial development. He identified that erratic power is born out of inconsistent policies, insufficient power generation, transmission, distribution and consumption, incompetence workforce, using of default billing system and inability to put off electricity when it was not needed, etc.

He concluded that the problem could be tackle by adopting energy conservation policy and devices, immediate discontinuation with default / estimating billing system by electric distribution companies. He asked for upgrading of distribution and transmission equipment and engagement of qualified staff by electricity power companies

Onochie et al (2015) examined "Electricity Crisis in Nigeria, The Way Forward". The authors firstly looked into the history of electricity in Nigeria as dated back to 1896 in Lagos with the first generation plant producing a total power of

60kw. In 1946 the Nigerian government electricity undertaking was established under the jurisdiction of Public Work Department and its responsibility was to take over Lagos State. As a result of prominent duty perform by electricity in 1950, a central body was established which transferred electricity supply and development to Electricity Corporation of Nigeria (ECN). Later the Niger Dam Authority was separately established by law and one of its responsibilities was to maintain hydrodams and other works on river Niger and can also generate electricity by means of water power plants. The Electricity Corporation of Nigeria (ECN) eventually become market for the Niger Dam Authority (NDA) to sell the electricity produced by them while the Electricity Corporation of Nigeria (ECN) distribute it to the populace. Due to some lapses and lack of adequate functioning, the Electricity Corporation of Nigeria and the Niger Dam Authority were merged for effectiveness on 1st April, 1972 and the new organization was named National Electric Power Authority (NEPA).

After sometimes it was discovered that National Electric Power Authority (NEPA) could not meet the electricity supply of ever increasing Nigeria population then the Power Holding Company of Nigeria (PHCN) had to take over.

The power reform Act that was passed in 2005 transferred the asset and liabilities of National Electric Power Authority (NEPA) to Power Holding Company of Nigeria (PHCN). Nevertheless the Power Holding Company of Nigeria (PHCN) could not meet the electricity demand of Nigerian which made the reform of privatization to be inevitable. The Power Holding Company of Nigeria (PHCN) had failed despite all the persistent investment made for urban energy sustainability and economic realization. (Ojo I.C. 2012).

On the 1<sup>st</sup> of November , 2013; the Power Holding Company of Nigeria (PHCN) was privatized with the aim of giving opportunity for private sector to invest: to build more generating plants and to allow more Independent power participators as practiced in some African Countries. The capacities of energy generated by these private sectors are greater than state owned capacities as in Ghana, Namibia, Uganda and Zimbabwe (Karekezi and Kimani, 2002). Privatization will also allow investment on renewable energy hence complementing the energy deficit and reducing pollution emitted from fossil oil.

The Generating companies and their capacities Table 1 and the Distributing companies and their areas of operation Table 2 are shown below.

Table 1: The Generating Companies and their Capacity

S/N	Generating Company	Plant	Capacity
1	Afam Power plc	Thermal	987.2
2	Egbin Power Plc	Thermal	1320
3	Kanji / Jebba Hydro-Electric Plc	Hydro	1330
4	Sapele Power Plc	Thermal	1020
5	Shiroro Hydro Electric Plc	Hydro	600
6	Ughelli Power Plc	Thermal	924

Source: Nigerian Electric Regulatory Commission (2013)

Table 2: The Distribution Companies and their areas of Operation

S/N	Distribute Companies	Areas of Operation
1	The Abuja Distribution Company	FCT, Kogi, Niger
2	Benin Distribution Company	Edo, Delta, Ekiti, Ondo
3	Eko Distribution Company	Lagos (Island, Victoria Island) Lekki to Epe
4	Enugu Distribution Company	Abia, Anambra, Ebonyi, Enugu and Imo
5	Ibadan Distribution Company	Kwara, Ogun, Osun, Oyo
6	Ikeja Distribution Company	Lagos (All mainland, Ikeja to Badagry)
7	Jos Distribution Company	Bauchi, Benue, Gombe, Nassarawa & Plateau
8	Kaduna Distribution Company	Kaduna, Kebbi, Sokoto and Zamfara
9	Kano Distribution Company	Jigawa, Kano and Kaduna
10	Portharcourt Distribution Company	Akwa Ibom, Bayesa, Cross river and Rivers
11	Yola Distribution Company	Adamawa, Borno, Taraba and Yobe

Source: Federal Ministry of Power (2013)

These generating companies and distributing companies were handed over to their owner on the 5th November 2013. The company responsible for electricity distribution in Ondo State is Benin Distribution Company and the headquarter is in Akure.

Comparing with other countries of West Africa, the tariff of the Nigeria electricity is the lowest out of the six countries in West Africa. Though Nigeria government is subsidizing the cost which make it not cost reflective in supporting the viability of the Nigeria supply industry.

Table 3: Electricity Tariffs

	Chad	Niger	Cameroun	Benin	Ghana	Nigeria
Social Tariff 100kwh/month	11.07	16.85	17.33	21.6	9.41	1.58
Residential Tariff 600kwh/month	25.60	16.85	19.10	24.51	12.92	9.68
Commercial Tariff 1800kwh/month	26.75	20.52	23.55	24.00	21.92	9.66

Tariff comparison Across 6 West African Countries

Source: Union, Transporters and Distribution of Electricity Power in Africa UPDEA. (2009)

In funding electricity between 1999 and 2007 government had invested \$16 billion in the generating of electricity. In 2007 government appropriate about 1,127.87 billion Naira representing 22.72% of annual budget and in 2010

government fund electricity with 1,70278 billion Naira which is about 8.87% of that year budget. A lot of money had been involved in this venture but lack of transparency and corruption could not allow the goal of government to be accomplished. The

government found out that it is difficult for her alone to found power supply efficiently and effectively. Due to insufficient power supply to the grid, increased in population, economic down turn, inadequate funding etc, the government resolve to privatise the generation of electricity into six (6) generating companies and eleven (11) distributing companies as mentioned above.

## STUDY AREA

Akure lies on latitude 7° 15' North of the Equator and Longitude 5° 5' East of Greenwich median. In 1915, Akure became the provincial headquarters of Ondo State as well as the District headquarters of Akure District council. In 1976, Akure eventually became the state capital of Ondo State. Due to the upgrading of her statue, there was influx of some non-governmental agencies such as banks, insurance and private enterprises which increased the volume of business transaction of the town. Hence people from different part of the states migrated to Akure in search of employment and other opportunities which had greatly increased her population. The table below show the population of Akure between 1952 and 2007 as calculated by Adebisi 2007.

Table 4: The Population growth of Akure.

Year	Population
1991	239,124
1995	263,947
2000	298,633
2005	346,197
2010	401,329
2015	286,114

Source: Authors 2016.

The Population calculated from 1991 census with growth rate of 2,5% between 1991-2000, also the growth rate 3% between 2001-2010 and lastly the growth rate of 4% between 2011 and 2015.

The above data had shown that there was continuous increase in population of Akure which was the consequence of migration of population to the state headquarter. This is because Akure is an administrative, political industrial and commercial centre .

In year 1991, the population was 239, 124, in year 2013 when Power Holding Company of Nigeria was privatised, the population was 449, 440 and in year 2015, the population had increased to 286,114 while the electricity distributed by Benin Distribution Company has not increased.

## METHODOLOGY

The study used the distribution of 200 questionnaires to examine the impact of privatisation on socio-economic development of the core Akure urban city in Nigeria. The major streets examined were Isolo, Arakale, Oba-Adesida, and Oke-Ijebu. The selection was based on houses and in case there were more than one flat in a house, flats were recognised. In each of the street, one out every five houses or flats was systematically randomly selected and 50 questionnaires were distributed to tenants or land lords of the selected houses to give information on electricity supplied for the past two years.

The questionnaires ask questions on the area identified below from respondents.

- i. Educational background
- ii. Gender
- iii. Occupation
- iv. Type of metre
- v. Estimated billing metre system and tariff
- vi. The effectiveness of Electricity supply
- vii. The use of generator to supplement electricity
- viii. The effect of power supply on home equipment
- ix. The use of energy saving bulb
- x. The possibility of customer willingness to pay for increase in tariff

- xi. Poor electricity supply and reduction of daily working hour
- xii. Electricity supply and availability of employment

### **Findings Analysis and Discussion**

The sample size of this research was 200 respondents and concerning their educational background 22 percent have no education, 21 percent have primary education, 32 percent have secondary education, and 25 percent have tertiary education. From the above data one could deduce that 57 percent of the sample have above basic education which could make them respond promptly to necessary information that promote good communication between customers and Benin Electricity Distributing Company.

The occupation of respondents consists of civil service with 15.5 percent, farming 22.5 percent, Trading 44 percent artisan 13 percent and others 6 percent. The research revealed that Benin Electricity Distributing Company had traders as her highest number of customers.

On gender respondents 44 percent were female and 56 percent are male. The male has the greater percentage because in an organised family in Nigeria, the father is the head of the family and he is the first person to give information about his family and where he is not available, the wife or any other person is then allowed to give the required information.

On number of metres distributed to the customers, 48 percent of the metres were prepaid, 29.5% were analog (estimated billing ) and 22.5% were without metres. Except prepaid metres, 51% of the metres collected are prone to fraudulent activities. In their billing system and tariff collection. This default billing is criminal exploitative, and destructive, and be condemned and discontinued Ohajianya et al 2014. The 51% metres collected would not give accurate record of electricity supply and consumed.

On electricity supply, 24 percent indicated that electricity in their area was effective and 76 percent indicated that the electricity supply was erratic which mean the situation is such that electricity from the national grid cannot be predicted when it would be available for consumption.

As a result of insufficient power generation to provide adequate, effective and efficient electricity supply, the use of generators to complement the existing supply was made available by different house hold or market stalls. 75.5 percent of respondent indicated that they used generators while 24.4 percent indicated that they are not using it. This use of generators enable industries and households to have control and confident on electricity supply but it increased the cost of production and services.

The pattern of electricity supply have effect on home equipment. 16.5 percent of respondents indicated that power supply did not affect their electrical appliances but 83.5% indicated that power supply affect theirs. Electricity supply affected home equipment because the distribution infrastructure were ill maintained or below capacity or usage of incompetent technical staff . Those affected should report to the electricity distributing company concerned to necessary adjustment in saving their home equipment. 45.5 percent of the respondents indicated that they use energy saving bulbs while 54.5 use non energy saving bulb. As Nigeria energy supply is far less than demand, the use of energy saving devices should be encourage and government should outlaw outdated gadgets and devices as they over utilised the power supply. The production of modern gadgets and devices should be subsidized by government.

As related to tariff increase on electricity, 69 percent of the respondents indicated that they were willing to pay more and 31percent indicated

that they were not ready to pay higher than the present tariff. From literature information revealed that Nigerian had the lowest electricity tariff in West Africa but customers are ready to pay more for effective and efficient electricity. The electricity distributing company should first and foremost adopt pre-paid system of payment for all categories of customers, if the service is commensurate to payment there is opportunity for the distributing company to make high profit. 24.5 percent indicated that the present pattern of electricity supply did not reduce long working hours while 75.5 percent indicated that the present pattern hinder long hours of working. Since the supply was erratic, electricity was arbitrary supplied at the hour of need, making such hours to suffer from supply and the accomplished work required.

Without efficient energy system, the effort of the people to engage efficiently in productive activities or to prove their quality of life is seriously challenged (Barnes and Floor, 1996). 16 percent indicated that the rate of unemployment is not caused by ineffective electricity and 84 percent indicated that the rate of unemployment is caused by the ineffective electricity. Availability of effective and efficient electricity supply provide enable for acquisition of knowledge and skills, and also for management to maximize production for cheaper goods and services.

## **RECOMMENDATION AND CONCLUSION**

The research had shown that 83.5% indicated frequent power failure and 16.5% indicated frequent power supply in Akure urban city. The result revealed that Akure had poor access to electricity supply which is an evidence of poor coordination, funding, little or no concern for infrastructural acquirement, poor maintenance and

repairs and poor technical staff as realised literature.

The poor electricity supply had resulted in the following: lack of employment, the use of generator to supplement power supply, increase in cost of goods and services which imposed hardship and poverty on the people etc.

The use of old, obsolete and inefficient equipment by private sector over-utilised the available energy, but energy can be saved through energy efficient equipment. Otherwise inefficient equipment would remove energy which should had been used to provide comfortable atmosphere, or operate home equipment or industrial machines and this wasted energy has a damaging effect on the socio economy of Akure urban people.

Though Nigeria is one of the countries that have the cheapest tariff in West Africa but respondents of this research are ready to pay for steady, effective and efficient power supply may be the unavailability and irregularity of the present electricity supply was their reason for refusal to increase electricity tariff. With introduction of metre to every house and the stoppage of estimated billing system, the usage of pre-paid metre will help in effective revenue generation and collection.

Government should encourage both local and foreign investors to participate under some guidelines as fraudulent or inactive investors will disrupt availability of electricity which consequence will affect the socio-economic of the people. Insincere or fraudulent participators should be immediately disfranchised.

Government should ensure importation and manufacture of energy efficient equipment and machinery to discourage energy lost through old and obsolete equipment. Government must insist on quality control and standardisation and the promotion of energy efficiency benefit through radio, television, handbills, billboards display, organisation of seminars on energy efficiency etc.

All these will enhance availability of energy for consumption.

There are many potentials in renewable energy but they are costly to access, Nigerian should intensify research on them for their affordability so that they can be easily integrated into the present available energy system. The independent power participation had become sources of power generation in some countries in Africa, their combine capacities are greater than state owned capacities and the system should be adopted in transforming the private power sector in Nigeria particularly in the renewable energy. Small and medium schemes of renewable energy are more cost effective than the present existing large schemes. Again the present gas project are not giving reliable energy supply, renewable energy should be integrated into the present energy mix by independent power participators to enlarge the electricity supply .

The legal system should be clear and dynamic enough to identify all stakeholders of private investors in the energy sector and protect their rights. The system should also promote transparency and accountability, and recommend appropriate punishment for defaulters and corruptible practices.

The present power supply privatisation has done little in socio-economic development of Akure urban city but the current energy mix can be greatly improved by the activation of existing power company by government, then promote small and medium schemes in renewable energy through independent power participants as well as promoting energy efficiency equipment while formulating workable policies that can stimulate investors.

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