

Understanding The Nexus Between Power Sector Reforms and Development of Agro-Industries in Post-Colonial Nigeria

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Abstract- In the developing African societies, electricity has continued to pose greater threats due to lag in its supply. As a driver of economic development especially in the advanced countries, Nigeria has been at the receiving end in the global competitiveness for energy resources. In her quest to catch up, Nigeria state has in the recent past initiated public policy and reforms in the power sector in order to resuscitate her ailing economy. However, it is based on this established backdrop that the thrust of the paper seeks to appreciate the unbundling and privatization of Power Holding Company of Nigeria (PHCN), and Agro-manufacturing industry, the linkage between National Electricity Regulatory Commission (NERC), and quantity of energy supply to agro-industries in Nigeria. Methodologically, the paper adequately utilized documentary method. Data were generated through the secondary sources of data collection and analyzed in content. The theoretical framework of analysis is strictly anchored on the Marxian theory of post-colonial state which informs how the post-colonial tendencies shape the character and nature of Nigerian state, its politics and economy. The finding of the study reveals the significant ways, other than electricity, that can boost the economy through agricultural activities. The paper recommends among others; partnering of government with the private operators and stakeholders in funding of energy sector.

Index Terms- Agriculture, Development, Electricity, Industry, Manpower

I. INTRODUCTION

The history of electricity development in Nigeria is traced to the end of the 19th century when the first generating power plant was installed in Marina, Lagos in 1898, fifteen years after its introduction in England (Claudius, 2014). It was after the swift amalgamation of the Northern and Southern protectorates by the colonial masters and overlord in 1914 that other towns and areas started to shape and develop their electric power supply system on individual scale. According to Adeyemi, Opeyemi & Oluwatomisin (2016), government and national owned electricity system remained separate operational entity for several years until 1946. In the same year, Public Works Department was ceased to

have control over the operation of the electricity generating plants and distribution in Nigeria.

However, by 1950, a central regulatory body was established to take over all the various electric supply outlets within the country, and were referred to and addressed as the Electricity Corporation of Nigeria (ECN). Likewise, in 1962, an Act of Parliament which established Niger Dams Authority (NDA), was entrusted for dam construction. Though, both ECN and NDA became defunct and were merged to form a unified National Electric Power Authority (NEPA), on 6th of January 1973. Moreover, in order to deregulate the power sector, an Act of parliament was established to institutionalize Power Holding Company of Nigeria (PHCN), as government effort to revitalize power sector. This was aimed for the privatization and transfer assets and liabilities of NEPA to PHCN which was officially commissioned on the 5th of May 200, and mandated to carry out business of NEPA (Claudius, 2014).

It is interesting to note that despite the philosophy behind the reformation of power sector in Nigeria, plausible evidences had reveal that manufacturing industries in Nigeria have for a very long period of time faced with serious challenges leading to its unsatisfactory performance, most especially in the agricultural industry. Buttressing the above, the perennial low electricity supply in Nigeria has got worse in the first quarter of 2018 as cumulative power supply reduced to 114,556 megawatts, MW as against 114,054.92MW recorded in the last quarter of 2017. Data from the power generation fact sheet of the Presidential Task Force on power showed N37.88 billion was also lost in the first quarter of 2018, as against N38.94 billion recorded in the last quarter of 2017, while gas constraints stood at N55.66 as against N32.51 billion within the period respectively. Electricity month by month statistics of the quarter showed that January recorded the highest power sent out which stood at 63,138MW, while the sum of N21.63 billion was lost. Power loss stood at 1,966MW, while gas constraint of 30,622MW was recorded. February, 2018 followed in terms of power sent out, as it recorded 36,222 MW and amount loss of N119.91billion, while power loss stood at N236.85 with a gas constraint of 16,526.5MW.

In January 2018, power distribution out stood at 15,196MW, as N4.33 billion was recorded as amount loss, while power loss stood at 251MW, with gas constraint of 8,520MW. In the last quarter of 2017, the month of December had the highest

power sent out of 77,577MW, with amount loss of N20 billion, while power loss stood at 724.59, with gas constraint of 17,784.6MW. This was followed by the month of October 2018, which recorded power distributed at 35,570MW, while amount loss stood at N11.08billion, with power loss and gas constraint of 2,406.17 and 5,084MW respectively (Udeme, Obasi & Ochayi, 2018).

The above outcomes implicate poor electricity supply which is the greatest problem confronting the agricultural sector in Nigeria. More so, the situation is exacerbated by a gross inefficiency, poor maintenance culture and unsystematic distribution of electric power. According to Adenikinju, (2011), the transmission of electricity networks in Nigeria has always been characterized by several outages leading to disruption of joy the citizens derive from consumption of electric power. The implication of the ills of energy sector in Nigeria is a function of dependence of people on electric power which is not even enough to meet the demands of the users, leading to constant load-shedding and blackouts.

However, following the National Electric Power Authority (NEPA), Technical Committee Reports of 2004, the last transmission line in Nigeria was built in 1987 while none of the ongoing ones have been completed. This has affected the performance of some industries especially manufacturing industries like the agro-industries. It is ironical that in spite of the enormous power generating potentials, about sixty percent of Nigerians still have no access to electric power supply (Ajanaku, 2007 & Adegbamigbe, 2007). The erratic nature of power supply cripples the agro-allied industries which lead to economic difficulties. On the same note, Kaseke & Hosking (2013), maintained that lack of reliable energy supply cause problems for agricultural development as most irrigation lines are run by electricity.

Moreover, despite the effects of power supply in every other sector, the agricultural sector in Nigeria has undergone different phases since her independence. The sector in the 1960s contributed 85% of Nigeria foreign exchange earnings, 90% employment generation, and about 80% to gross domestic product (CBN, 2010). On the other hand, the agricultural sector since the discovery of oil has witnessed lots of neglects from the various successive governments. At present, agriculture accounts for only 35%, and below the real Gross Domestic Products, while crude oil accounts for about 55% and above (Noko, 2016). Although, agriculture seems no longer serve as the leading foreign exchange earnings due to phenomenal growth in oil sector of the economy as observed, but still dominating economic activities in terms of employments leading to greater Gross National Product. While accounting for one-third of the GDP, agriculture remains the leading employer of the vast majority of the Nigerian population as it employs two-third of the labour force (Ekpo & Umoh, 2012).

The principal constraint to the growth of the agricultural sector is the fact that the structure and method of energy production has remained the same since independence as epileptic power supply ceases not to supply. The Transformational Agenda of the former Administration of President Goodluck identified agricultural sectors as the main growth driver among water resources, solid minerals, manufacturing, oil and gas, trade and commerce as well as culture, and tourism. The decision was prompted by the fact that the performance in these sectors had

been constrained by several challenges including low productivity, low level of private sector investment, non-competitiveness, inadequate funding, poor regulatory environment, poor quality of goods and services, and high cost of doing business (FGN, 2011).

Despite the various energy reforms by Nigerian government which aimed at providing regular power supply to urban and rural areas across the nation, it is still a dream yet to come through. Consequently, the current status of electricity generated in Nigeria with regard to the population is grossly inadequate. This challenge has been into existence since the 1970s when the Udoji's Federal Government awards improved the economic life of the workers. This has made the workers to increase their electricity consumption by purchasing several sophisticated and automating machines that consumed quite a lot of energy. The power utility company, on the other hand was not prepared for this increase in consumption, and thus, leading to consistent imbalance in demand and supply of electricity.

Furthermore, the inconsistencies in public policy and lack of political will have been identified as the driver for power sector reforms in Nigeria which started under the aegis of National Electric Power Authority (NEPA). The major aim is to harness and utilize the financial, human and other resources for the development of the electricity supply across the country. As noted by Aliyu, Ramli & Salem (2013), the electricity industry has suffered from high technical losses and less availability of power generating plants. This has necessitated the power sector reforms initiated in 2000 (Oyeneye, 2004). By this development, NEPA was unbundled into 7 generation companies (GenCos), one transmission company (TransCos) and eleven distribution companies (DisCos). This arrangement is expected to encourage private sector investment particularly in generation and distribution (Okafor, 2005).

The reform bill approved by the Nigerian Federal Executive Council (FEC) is intended to achieve the following five objectives:

- Unbundle NEPA.
- Privatize the unbundled entities.
- Establish a regulatory agency.
- Establish a rural electrification agency.
- Establish a power consumer assistance fund.

However, despite power sector reforms in Nigeria, it has poses great challenges not only to the government that initiated the programme but also the populace who are the consumers of energy and to the new born PHCN which parades itself as a better alternative to the moribund NEPA. The importance of a stable power supply to the development of the agricultural sector in Nigeria cannot be over-emphasized. With the increasing food demand in Nigeria, the country has available natural resources and potential for increasing the volume of crop production towards meeting the food and nutritional requirement of the rapidly increasingly population and guarantee food security in the country. However, this is not to be the case of the Nigeria populace due to inadequate power supply.

It is important to note that modern agriculture requires an energy input at all stages of production such as direct use of electricity supply in water management, irrigation, cultivation, milling, land preparation and so on (Okoro, Govenda & Chikuni, 2006). Hence, the role of adequate electric supply in food processing for agro-industries cannot be neglected. Agriculture is

an important, but not dominant user of energy in Nigeria. Nevertheless, improving energy services for the populace especially in the rural areas in Nigeria should include increasing the energy input to agriculture so that gains in productivity, enhanced food security and rural economic development can be made. However, this is not the case. Most agro-industries depend on the use of generators for production, and this at the end of the day leads to the cost of production of goods far outweighing the profit accrued. Onakoya, Onakoya, Jimi-Salami & Odedairo (2013), asserts that the commercialization and privatization reform act which is aimed at addressing the acute power shortages has not yielded the desired result. As a result, majority of Nigeria's power plants are working below sixty percent of their total installed capacity. So far, this large scale blackout across the country has actually contributed to low productivity and in some cases the shutdown of some agro-industries in Nigeria.

II. UNBUNDLING AND PRIVATIZATION OF PHCN AND AGRO-MANUFACTURING INDUSTRY

In emerging democracies, reforms are predicated upon the needs for reorientation and repositioning of an existing status quo in order to attain an effective and efficient state. Besides, the fact that global economies are now private sector driven, inefficiency in Nigeria's power sector, occasioned by actions and inactions of the federal government and necessitate for the reforms in energy sector. Like other sectors in Nigeria, the story of the country's energy sector since the emergence of Electricity Corporation of Nigeria, ECN, ordinance No. 15 of 1950, has been punctured by operational failures (Udeme, Obasi & Ochayi, 2018).

According to Olaoye (2014), advantages abound when effective policies through reforms are enacted and implemented in the agricultural sector. The effective implementation of agricultural reforms has remained a huge problem in the development of the agro food industry in Nigeria. He also observed that the required processing techniques to convert crops and tubers into Value added Products (VAPs) are usually hampered because of non-availability of necessary processing facilities, and when available the electric power required to run them is lacking or grossly inefficient. Meanwhile, Orya (2015), observed that to unlock the potential for agricultural production, expansion of agro-industries is an essential pre-condition. Accordingly, he noted that the major factors that constrict the agro- processing sector is epileptic power supply. He put the decline of agro-industry to total manufacturing over the period of 1995 to 2006 according to a UNIDO2013 report, the level of loss for grains at 15-25 percent, post- harvest losses for fruits and vegetables at 35-50 percent of total production.

However, Osakwe (2017), posited that the agro-sector total 'Value Added' fell from 36% between 1980-89 and 26% in 2008-2014. Notwithstanding some positive developments in the sector,

the contribution of agro-manufacturing to total value added remains very low and this should be of concern because Nigeria depends heavily on agro- imports, which indicates that there is a huge domestic demand for agro- manufactures that is not being met through domestic production. He concluded in his report that the main challenges facing agro-industry is lack of access to stable and affordable power supply. Power supply to him, is unstable and expensive due to the unbundling and privatization policy of PHCN. According to his report finding, in 2013, the electrification rate in Nigeria was 45% compared to other developing countries with average of 78%, and the North African average of 99% (IEA, 2015).

Furthermore, Jacobs (2015), noted that the Manufacturers Association of Nigeria estimates that in 2014, an average agro-manufacturer experienced power outages 5 times per day, and was supplied electricity for just six hours per day. A study by the World Bank found that power outage is a more serious problem in Nigeria when compared to countries such as Brazil, China, Cote d' Ivoire, Ethiopia, Ghana, Kenya, Russia and South Africa. An average agro- firm in Nigeria loses about 17% of its sales due to power outages compared with less than 1% for agro-firms in China, 1% for those in South Africa and 5% for those in Ethiopia (Udeme, Obasi & Ochayi, 2018).

To Ganiyu, Adebayo, Oluwatomi, Ahmed Sulaimon & Lukman (2018), poor power situation in Nigeria is attributed to the incidence of privatization of PHCN. He maintained that about 70% rise in cost of operations was recorded as power generation which rose to above 4,500 megawatts, and suddenly dropped to less than 1,200 megawatts, resulting in load shedding by the power distribution companies. Getting electricity evenly distributed to the real sector has become a task the DisCos have not found funny. Accordingly, a report from the Manufacturers Association of Nigeria (MAN), members' companies in the past three years spent 20.8 billion naira monthly on power generation to run production process.

Also Jacobs (2015), noted that the effects of the power shortages and constant outages were numerous, range from cut down in production, job loss to outright closure or relocation to other countries by industries. He added that agro -firms had bear so much loss as the outage often occurs when goods are in the middle of production. Most firms like Coca cola, Nigeria flour mills self-generate their power. They don't rely on the national grid. Corroborating this, the Director General of the Nigeria Employers Consultative Association (NECA), Mr. Oshinowo, said generating alternative power to run the agro-manufacturing industry is expensive and invariably increases the cost of production. Oshinowo said as Nigerian companies operate in the global market, the consequence of incurring high cost on power generation undoubtedly would make the nation's agro-industries less competitive.

Table 2: Electricity Distribution Companies and their Networks

Name of company	Owner*	Purchase Value (\$ Million)	Coverage	Length of lines							Distribution losses (%)	Capacity (MW)	Peak Load Demand (MW)	Customer based (as at 2008)
				Overhead			Cables			Total				
				33KV	11KV	LV	33KV	11KV	LV					
Abuja	Kann Consortium Utility Company Plc	164	FCT, Niger, Kogi and Nasarawa	3,312	3,804	3,520	0	355	262	11,253	35	515	835	469,306
Benin	Vigco Power Consortium	129	Edo, Delta, Ondo and Ekiti	4,133	5,168	12,576	11,146	132	150	33,305	21	392	100	529,341
Eko	West Power & Gas	135	Lagos South	545	2,347	3,980	317	462	262	7,913	18	796	1105	266,075
Enugu	Interstate Electrics Limited	126	Enugu, Abia, Imo, Anambra and Ebonyi	4,092	3,210	20,558	4	178	213	28,255	6	612	1017	545,103
Ibadan	Integrated Energy Distribution and Marketing Company	169	Oyo, Ogun, Osun and Kwara	8,088	4,594	11,401	0	462	407	24,952	8	878	1193	812,000
Ikeja	NEDC/KEPCO	131	Lagos North	7,711	2,730	25,742	12	110	262	36,567	18	854	1335	535,692
Jos	Aura Energy Ltd	82	Plateau, Bauchi, Benue and Gombe	3,930	1,395	12,152	0	20	56	17,553	22	378	507	277,826
Kaduna	Sahelian Power SPV Ltd (Not fully privatized yet)	58	Kebbi, Doka, Gusau, Mak	1,533	1,614	6,535	5	145	93	9,743	25	344	520	285,736
Kano	Sahelian Power SPV Ltd	137	Kano, Jigawa and Katsina	3,583	1,253	2,351	4	156	17	7,364	40	365	596	489,655
Port Harcourt	4 Power Consortium	124	Rivers, Cross River, Bayelsa and Akwa Ibom	6,109	9,747	n.a.	n.a.	n.a.	n.a.	15,856	n.a.	486	773	347,789
Yola	Integrated Energy Distribution and Marketing Company	59	Yola, Adamawa, Borno, Taraba and Yobe	8,761	1,407	21,485	0	2	25	31,680	22	138	176	189,347

*State governments are shareholders in the DISCO that operates in their territory. Ikeja also counts with a private stakeholder: Sahara Energy
**Table created only for indicative purposes. The information included might not be complete or up to date

Source: Nigeria Energy Situation (NES, 2018)

The table two above shows the discrepancy between total energy demanded and the total supply by distribution companies. Ekpo & Umoh (2015), posited that hope were dashed following the inability of the power generating companies (GenCos), and distribution companies (DisCos) to provide the power supply needs of agricultural industries years after the privatization implementation. He observed that the role of agriculture in a developing country like Nigeria cannot be trivialized. In a recent press conference in Lagos, the leaders of Food, Beverage and Tobacco Senior Staff Association (FOBTOB), called on the federal government to intervene and save the industry and over 3 million jobs that are under threat. Likewise, the National Bureau of Statistics put the total number of Small and Medium Enterprises (SMEs) in the country at over 17 million, many of which rely on generators to run their businesses as the country continues to grapple with abysmal power generation. Also, speaking in the same vein, the National President of Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (NACCIMA), Bassey Edem, posited that despite the privatization of the power sector, there is still epileptic power supply in Nigeria. The country generates less than 5,000 megawatts of electricity for over 170 million people. Likewise, the president of Erisco Foods Limited, Umeofia Eric observed that the high cost of running manufacturing plants on generators was one of the reasons most local industries had remained uncompetitive; high cost of electricity most importantly have wreak havoc on the Nigerian manufacturers. In a survey carried out by the Manufacturers Association of Nigeria revealed that 130 billion naira was spent on self-generated energy in 2016. In as much as most scholars, writers, presidents of associations have much attributed the

decline in the agro-manufacturing sector to the incidence of the unbundling and privatization exercise of PHCN. They merely did a surface critique of the major factor(s) militating against growth in the agro-manufacturing sector, which will be addressed in our gap in literature.

III. NIGERIA ELECTRICITY REGULATORY COMMISSION AND QUANTITY OF ENERGY SUPPLY TO AGRO-INDUSTRIES

According to Okoromadu (2015), he asserts that while Nigerian electricity consumers continue to bear the burden of estimated billings, the sector regulator, Nigeria Electricity Regulatory Commission (NERC), and distributing companies have continued to use technical jargons to dribble consumers on directives concerning prepaid meters. The Nigerian Electricity Regulatory Commission (NERC) is empowered by the Electric Power Sector Reform (EPSR) Act, 2005 to ensure an efficiently managed electricity supply industry that meets the yearnings of Nigerians for stable, adequate and safe electricity supply (NERC, 2015).

Accordingly, the Acts mandate the commission to ensure that electricity operators recover costs on prudent investments and provide quality service to customers. Meanwhile, Okolo (2004), noted that insufficient energy generation and poor distribution in Nigeria is attributable to policy and regulatory barriers. According to him, majority of people residing in rural areas that house traditional agro-industrial processes, and usage of electricity is very pronounced in cases of milling operations dried yam, cassava cubes or slices and energy intensive operations, including pulping of vegetables and fruits. He noted that these activities could be

reasonably accelerated if access to energy is available to run modern equipment to provide effectiveness in their production. To him such low electrification constrains both agro-industrial production and the consumption of processed food products, since many agricultural raw materials especially highly perishable food raw materials, need to be processed within a few hours of

harvesting in order to ensure food conservation, safety and marketability. Therefore, he concluded that the amount of energy supplied to the agro-sector most especially in rural areas is extremely limited, too expensive or of low quality.

Table1: The table below shows the trends in Eletrification, 1997, 2006-2020

No.	State	No. of Households as of 1997 (*1)	% of Household with Electricity as of 1997 (*2)	No. of Households with Electricity as of 1997	Annual growth rate of consumers (%)	% of Household with Electricity			No. of Household with Electricity		
						2006	2010	2020	2006	2010	2020
1	Taraba	432,880	12	50,301	7.80	17	21	34	98,888	133,542	283,012
2	Jigawa	823,164	12	99,685	7.77	18	22	35	195,520	263,766	557,554
3	Zamfara	593,479	13	77,924	7.71	20	23	37	152,101	204,752	430,492
4	Sokoto	686,178	13	90,095	7.71	20	23	37	175,859	236,734	497,734
5	Kebbi	592,137	13	77,807	7.71	20	23	37	151,866	204,431	429,794
6	Katsina	1,074,392	14	145,902	7.69	20	24	38	284,184	382,194	801,663
7	Gombe	426,284	17	72,553	7.49	25	30	46	139,031	185,628	382,367
8	Bauchi	819,259	17	139,438	7.49	25	30	46	267,198	356,753	734,857
9	Benue	788,111	17	135,003	7.49	25	30	46	258,565	345,146	710,537
10	Yobe	400,682	19	75,729	7.39	27	32	50	143,826	191,270	390,098
11	Ebonyi	416,196	25	102,759	7.06	39	46	69	189,857	249,413	493,343
12	Enugu	608,334	25	150,198	7.06	39	46	69	277,505	364,554	721,096
13	Cross River	547,224	29	159,954	6.80	40	47	68	289,196	376,273	726,572
14	Nassarawa	345,773	31	108,607	6.68	43	49	71	194,326	251,669	480,372
15	Plateau	602,456	31	189,231	6.68	43	49	71	338,583	438,495	836,973
16	Kano	1,663,337	32	538,256	6.62	44	51	72	958,709	1,239,106	2,353,218
17	Borno	725,970	34	248,935	6.51	46	53	75	439,310	565,469	1,062,926
18	Adamawa	601,745	35	210,069	6.48	47	54	76	369,621	475,140	890,189
19	Akwa-Ibom	689,703	36	246,638	6.43	47	55	77	432,200	554,578	1,034,327
20	Niger	693,215	42	288,932	6.10	54	61	83	492,124	623,542	1,126,789
21	Kaduna	1,126,632	43	479,607	6.05	55	62	84	813,402	1,028,655	1,850,037
22	Kogi	614,828	50	309,996	5.60	62	70	90	506,218	629,499	1,085,526
23	Bayelsa	321,102	52	167,069	5.51	64	71	91	270,706	335,469	573,511
24	Rivers	912,575	52	474,813	5.51	64	71	91	769,348	953,408	1,629,926
25	Abia	547,888	52	287,587	5.48	53	58	75	464,946	575,611	981,623
26	Imo	711,551	61	433,833	5.00	72	78	96	673,132	818,258	1,333,107
27	Delta	741,568	62	462,294	4.92	73	79	96	712,530	863,590	1,396,589
28	Edo	621,770	63	388,855	4.91	73	79	96	598,757	725,382	1,171,814
29	Kwara	443,257	68	299,509	4.63	77	83	98	450,021	539,288	847,795
30	Osun	617,802	71	436,539	4.45	80	85	99	646,094	769,082	1,188,952
31	Abuja	106,397	71	75,436	4.44	80	85	99	111,517	132,676	204,841
32	Ogun	668,065	72	483,813	4.35	81	86	99	709,928	841,842	1,289,056
33	Ekiti	439,644	72	318,698	4.35	81	86	99	467,484	554,265	848,386
34	Ondo	643,968	72	466,812	4.35	81	86	99	684,748	811,860	1,242,673
35	Anambra	800,534	78	621,295	4.06	85	88	99	888,786	1,042,097	1,551,263
36	Oyo	988,395	78	771,541	4.03	85	89	100	1,101,286	1,289,986	1,915,566
37	Lagos	1,638,903	96	1,577,936	3.00	96	96	97	2,058,848	2,317,252	3,114,193
	Total Nigeria	25,475,400	44	11,263,648	6.04	53	58	75	17,776,220	21,870,672	37,168,770

(Remarks)

(*1) No. of Households as of 1997 was extrapolated based on the result of 1991 Census.

(*2) % of Household with Electricity as of 1997 was quoted from the result of General Household Survey 1997/98.

Average number of persons per household 4.13

Annual growth rate of consumers (Highest) 7.80 %

Annual growth rate of consumers (Lowest) 3.00 %

Source: Nigeria Energy Situation (NES, 2018)

The above table clearly depicts the sorry state of energy distribution in Nigeria as affects microeconomic and agricultural activities. Adah (2017), observed that the coming onboard on the president Muhammadu Buhari administration in 2015 brought an unprecedented hope of improved and steady power supply to Nigerians. However, in the face of all these efforts by the Minister of power, Babatunde Fashola and other stakeholders, the sector is not seen to be better than what it has been years ago in terms of power supply. There seems not to be any significant departure from what it used to be as the power delivered still hovers around the daily average of 3,000 to 3,500 megawatts. According to him,

accusing fingers are keenly pointing in a particular direction by stakeholders and experts. They believe that the Nigerian Electricity Regulatory Commission (NERC), which is at the center with the mandate of providing the operational framework for the industry which is the backbone of the country and ensuring compliance with all regulatory measures in line with government policies has not been living up to its billings, hence the one- step-forward- two-steps-backward journey of the sector.

Also, Ogaji (2018), maintains that lack of vibrant leadership in the sector is largely responsible for the setback being suffered at the sector amidst all orchestrated efforts at bringing about incremental and stable power. She observed that since

NERC was not standing up as a regulator, that some stakeholders flagrantly flout the contractual terms knowing that nothing will happen. According to Madu (2017), NERC as a regulator was a fundamental requirement for the achievement and advancement of what the power sector reform aims to achieve, which is stable power supply to all including the manufacturing industries. He observed that energy is required to power agro-processes in order to produce goods. Thus, insufficient, unreliable or costly access to electricity has remained a binding constraint to the development of agricultural sector in Nigeria. He noted that over the years, the limited growth of Nigeria's electricity supply industry, combined with the high cost of diesel and petrol generation has crippled the growth of the country's productive industries.

A report by Overseas Development Institute (ODI, 2015), states that half of all businesses in sub-Saharan Africa report lack of reliable electricity as a major constraint. Accordingly, power outages cost African countries an estimated 1-2 percent of their GDP annually. It is estimated by the World Bank that the total loss in GDP to Nigeria over the last few years, due to poor electricity supply can be put at approximately 71 trillion naira. A review of the World Bank data on electric power consumption, for Nigeria and China between 1971 and 2015, indicates that the widening gap between China and Nigeria in terms of agricultural growth could be strongly correlated to the widening gap for electric power consumption. Scholars like Olaoye (2014) and Osakwe (2017), examined critically the benefits of privatization and the linkage between unbundling and privatization of PHCN and decline in the agro-sector; the numerous problems of the privatization policy. They disregarded other contributing factors to the decline in the agro-industry. To these writers, they argue that the privatization policy, and the unbundling of PHCN has led to the incidence of irregular power supply and an expensive cost of electricity was a major constraint to the growth of the agro-sector. However, they failed in their analysis to consider other restraints to the development of the agro-sector like problem of policy incapacity and implementation inefficiency. This therefore questions skills and appropriate use of required manpower in both policy formulation and implementation processes. Also, another contributing factor to the decline of the agricultural sector which was disregarded is the problem of lack of storage, transportation and processing facilities which has caused wastage. For instance, the demand for tomatoes is put at 2.2m tonnes while supply is 0.8m tonnes. However, actual production is 1.5m tonnes, with 0.7m tonnes lost per harvest. Nigeria spends 1 billion dollars importing tomato paste (Africa Business Insight, 2016).

Examining the effects of NERC on the quantity of power supply to the agro-sector, Okoromadu (2017) and Adah (2017), examined the compromised character of NERC. They argued that the major challenge hindering the unlimited amount of power supply was nothing but corruption, inefficiency and greed of operators. However, they neglected to bring to bear the interference of government in their activities. More so, a lack of incentives in the form of financial support and matching grants from state governments to the 11 distribution companies (DisCos), to extend their services to rural areas of the country. Hence, such financial incentive should be given through an independent regulatory body such as NERC to ensure proper supervision and monitoring. Therefore, this will in turn ensure adequate power

supply to manufacturing sectors like agro-industries. Although, these scholars were logical in their analysis, they however overlooked the above contributing factors in the implantation of the power sector reforms and its impact on the development of the agricultural sector in Nigeria

IV. THEORETICAL FRAMEWORK

This study employs the Marxian post-colonial state theory as the explanatory tool of analysis as post-colonial tendencies have shaped the character and nature of the Nigerian State, its politics and policies. As explained by Alavi (1975). The argument is premised on the historical specificity of post-colonial societies, which arises from structural changes brought about by the colonial experience and alignments of classes through superstructures of political and administrative institutions. Secondly, the work considers the radical re-alignments of class forces which have been brought about in the post-colonial situation. Thus, it was in order to secure their economic interests that colonial governments discouraged the emergence of a strong indigenous capitalist class. The specific manner in which the colonialists produced the indigenous elite turned the competition for the control of state power into a do-or-die affair hinged on corrupt practices and inefficient service delivery. This was so because control of state power provided the only access to primitive accumulation of capital – the process by which a class of capitalists is produced. Consequently, state institutions became the main instruments for perpetuation of class interests and for willful alienation and self-reproduction.

Furthermore, the feature of the socio-economic formation in post-colonial states and the contemporary peripheral formations generally is that the state has very limited autonomy (Alavi, 1972). That is, the state is institutionally constituted in such a way that it enjoys limited independence from the social classes – particularly the hegemonic social class – and so is immersed in class struggle instead of rising above it. This is why the post-colonial state is incapable of mediating the class struggle. The above explains why the power sector reforms have continually been a struggle for government to deal with despite all the efforts that have been going on in the sector since Nigeria's independence. Those who have benefitted from the inadequate power supply have ensured that successful reforms never take place. This is because of the weak economic base of the class that inherited post-colonial Nigeria, which has made the state a major instrument of investment and development of personal-regarding interests, thereby making the class wholly reliant on the state for wealth accumulation. This framework of analysis helps in understanding how the instrumentalist nature of the Nigerian state constitutes to state of inefficient service delivery in the power sector and the resultant effects of this disaggregated action on the agricultural sector.

V. CONCLUSION AND RECOMMENDATIONS

The study exposes the capability of electricity consumption to move the nation from this undesirable state to better and more desirable state by being able to catalyze the so called agricultural growth and socio-economic development. The

study captures the present electricity status in Nigeria viz a viz the agricultural growth. Further consideration of strong granger causality shows its capability to turn the nation's economy around. This is due to the fact that Sunlight, Wind, Rain, Tides and Geothermal heat (renewable(s) are abundant in Nigeria and should be exploited to generate electricity required to spur the development in Nigeria.

The unbundling of the PHCN which has been taken over by private individuals is a right action in the right direction. The establishment of National Electricity Regulation Commission as institutional framework that is saddled with monitoring and regulation of the sectors is in line with the best practices. Therefore, the body must be strengthened and made to be independent in decision making as far as this privatization is concerned in order to avoid the situation where public monopoly would be turned to private monopoly.

The sector is a promising one, which is capable of bringing about the success story to Nigeria if it is properly harnessed. In the light of this, Federal government should continue to partner with the private operators in the area of funding as we all know that the project concern is capital intensive and a very long gestation period.

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