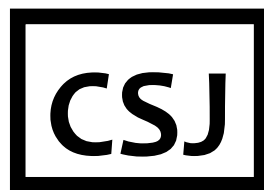


Engaging the Approved 2016 Federal Power Budget



CENTRE FOR SOCIAL JUSTICE (CSJ)

(Mainstreaming Social Justice In Public Life)

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Figure 1: Installed Capacity, Supply and Losses across the Power Value Chain in Nigeria (GW) 2015

LIST OF ACRONYMS

DISCO:	Distribution Company
ESML:	Energy Services Management Limited
EPSRA:	Electric Power Sector Reform Act
FGN:	Federal Government of Nigeria
FMWPH:	Federal Ministry of Works, Power and Housing
FRA:	Fiscal Responsibility Act
GENCO:	Generation Company
GW:	Gigawatt
GHz:	Gigawatt hour
ICREEE:	Interministerial Committee on Renewable Energy and Energy Efficiency
IPP:	Independent Power Projects
KWh:	Kilowatt hour
MAN:	Manufacturers Association of Nigeria
MTEF:	Medium Term Expenditure Framework
MTSS:	Medium Term Sector Strategy
MW:	Megawatt
MYTO:	Multi Year Tariff Order
NASSI:	National Association of Small Scale Industries
NEEDS:	National Economic Empowerment and Development Strategy
NEMP:	National Energy Master Plan
NERC:	Nigerian Electricity Regulatory Commission
NIIMP:	National Integrated Infrastructure Master Plan
NIPP:	National Integrated Power Projects
NREAP:	National Renewable Energy Action Plan
NV 20:2020:	Nigeria Vision 20:2020
REA:	Rural Electrification Agency
RET:	Renewable Energy Technology
SDG:	Sustainable Development Goals
TCN:	Transmission Company of Nigeria
USD:	United States Dollars

EXECUTIVE SUMMARY

Modern economies, institutions, families and day to day life require power, particularly electric power. For industries engaged in the production and distribution of goods or service industries, electric power is so essential for virtually everything that needs to be done. In the agriculture, education, health and entertainment sectors, etc, electricity takes a pride of place and it is central to modern life. Thus, whether one is at work or at play or even asleep, electricity is a basic necessity and an essential intermediate input for economic and social development.

Nigeria's power challenge has persisted for decades and a previous development strategy, the National Economic Empowerment and Development Strategy (NEEDS) even recognized power as the most important infrastructure requirement for moving the private sector forward and goes on to state that Nigeria's power system is so inadequate that it has held back economic progress and social well-being.

The 2016 Power budget review will examine the sectoral policies, projected funding requirements and the relevant statistics in the sector. It will review the budget votes to determine its adequacy and conformity with the projections and whether a funding gap exists. It will also determine whether Nigeria is deploying the maximum of available resources for the progressive improvement of the power supply situation. The review will take cognizance of the duties that have been devolved to the private sector. Finally, recommendations will be made to drive the sector in the required direction.

Nigeria's Vision 20:2020, the National Renewable Energy Action Plan, National Energy Master Plan, National Integrated Infrastructure Master Plan and the Electric Power Sector Reform Act 2005 have made provisions for the reform of the power sector, enhancement of investments and the improvement of service delivery. Relevant statistics indicate that among comparator countries, Nigeria's installed capacity and utilization factor is low while value chain losses are one of the highest in the world. Our electricity consumption per capita is also very low. However, the generation and distribution part of the power sector chain have been privatized.

The review computes the allocations to power against the projections of NIIMP over the five years 2013 to 2018. The NIIMP states that over the first 5 years, Nigeria needs to spend USD23 billion in power, of which USD14-16 billion will be required to increase generation capacity from current levels to 20 GW by 2018; USD3-5 billion to increase transmission capacity; and USD3-5 billion to increase distribution capacity. To establish the funding requirement, the total sum of USD23 billion will be divided by 5years and it comes to USD4.60billion a year. The Minister for Works, Power and Housing is reported to have indicated that of the total allocation of N 456,936,811,203 to the Ministry in 2016, 23% of this amount will be spent on power. It is this 23% of the overall FMWPH

vote that we will use to calculate the allocation to power in 2016. FGN voted 1.56%, 1.35%, 0.21% and 1.73% of the overall federal allocations to the power sector in 2013, 2014, 2015 and 2016 respectively. This is an average allocation of 1.21% of the overall budget over the four year timeframe. The variance between the NIIMP projection and the allocations to power for the four years cumulatively amounts to N3,689,020,071,307 whilst it came up to an average of N922.255 billion a year. The total allocation to power in 2015 was exceptionally low and stands in sharp contrast with that of 2016. It is acknowledged that some of the funds projected in the NIIMP were expected to come from the private sector.

Considering that FGN has privatized generation and distribution whilst still holding on to transmission, it is imperative to calculate the projection of NIIMP for transmission against the allocated sums. Public funding in the years 2013, 2014, 2015 and 2016, was only 48.51%, 34.45%, 4.83% and 33.36% respectively of the NIIMP projection. Over the four year horizon, this creates a total funding gap of N602.020 billion and average funding gap of N150.505 billion a year. Again, the demands of the sector have not been met by FGN funding.

In 2013, only 58.93% of the capital allocation to the sector was utilized; the utilization rate increased to 79.56% in 2014 and moved up to 139.85% in 2015. It was only in 2015 that the full capital vote was fully utilized and even surpassed the budgeted figures. But the extra expenditure for 2015 is not supported by legislative appropriation. For the first two years, the paltry capital expenditure was hardly utilized and this is poor compared to international benchmarks.

The 2016 allocations recorded unclear budget line items; allocations to a nuclear power programme; allocations to distribution which had already been privatized and a meager allocation to transmission which was still publicly owned. Against the background of the foregoing, the review made the recommendations listed hereunder.

i. De-merge the Ministries of Works, Power and Housing: The strategic nature and contributions of these three sectors to national development implies that they should be stand alone ministries with very competent hands running them separately. The challenges facing the sectors are too big to be combined in one ministry. Whatever benefits (including cost savings) that may possibly accrue from the merger will be outweighed by the cost implications of not moving speedily enough to allow the sectors contribute their quota to economic growth and development.

ii. Increase Public Funding of the Sector: Public funding to the sector should be increased by at least 50% for the 2017 budget year.

- The funds should be strategically targeted at improving capacity and utilising the available capacity.
- At least, FGN should seek to meet the preliminary funding requirements stated in NIIMP.
- The funding requirements of the NIIMP should be reviewed to reflect present economic and social realities.

iii. Capital Budgets Should be fully Implemented: FGN should consider ring-fencing capital votes across the sectors to ensure that the variance between the allocations and actual implementation does not exceed 5%. Further, cost reducing measures targeted at recurrent expenditure should be implemented by FGN. Revenue forecasts should be realistic and not overtly optimistic to guarantee availability of funds to pay for capital projects. Funds should be fully released on time to meet expenditure needs.

iv. Explore Alternative Funding Ideas: Various ideas have been articulated in the NIIMP and other plans on alternative sources of financing infrastructure projects. In the power sector, FGN should explore:

- Use of special purpose vehicles to raise funds from Nigerians in Nigeria and in the Diaspora.
- Public pension funds invested on bankable power projects that will make returns to the contributors at the appropriate time.
- Transmission infrastructure specific bonds floated at the local or international stock exchanges.
- Compelling DISCOs and GENCOs to become public companies floated on the stock exchange to be able to raise money from the public to finance their programmes.
- FGN should consider private sector funding for the transmission grid under an appropriate framework that does not endanger national security.

v. Provide Fiscal and other Incentives for Renewable Energy: Renewable energy use needs to be incentivized by fiscal strategies including the adoption of appropriate feed in tariff. This should be seriously considered in the 2017 budget process.

vi. Stop Further Allocations to the Nuclear Energy Programme: FGN should consider stopping further allocations to the nuclear energy programme as it is not in the overall national interest.

vii. Budget Line Items Should be Clear Enough: Repeated budget line items and unclear budgeting should not feature in the 2017 power sector budget. Also SDG projects and Service Wide Votes should be sufficiently disaggregated to guarantee transparency and accountability in public expenditure management.

viii. Prepare MTSS for the Sector: In accordance with the Fiscal Responsibility Act (FRA), the appropriation process should properly start with the preparation of Medium Term Expenditure Framework and its underlying Medium Term Sector Strategies. The MTSS should be prepared by a properly constituted sector team where all major stakeholders including civil society are represented.

ix. Review Agreements with Privatized Companies GENCOs and DISCOs: Relevant FGN agencies including the Bureau of Public Enterprises, NERC and the Ministry should review the agreements signed with the owners of the privatized GENCOs and DISCOs with a view to ensuring that they meet the targets set for them at the point of devolution. It is clear that the DISCOs especially are failing to meet targets in terms of cutting distribution losses, expanding metering and replacement of old dilapidated equipments.

x. Resolve the Niger Delta Challenge: Beyond the budget, the challenge of pipeline vandalisation and militancy in the Niger Delta affects the supply of inputs such as gas to the GENCOs which, in turn affects the utilization factor and available electricity. Engagement and dialogue with the leaders and youths in the region is imperative for the stabilization of the Nigerian electricity situation.

xi. Devolve Rural Electrification to States, Local Governments and DISCOs: There are fundamental questions about the rationality and desirability of continued federal funding for rural electrification. This should be devolved to the states and local governments with clear agreements between them and the DISCOs. The devolution would include transfer of the funds to the lower tiers of government. However, the scenario of government's continued investments in distribution whilst the DISCOs collect tariffs is a bit odd and needs to be resolved. The idea of privatization of DISCOs was in part to free government of the funding demands for the sector.

1. INTRODUCTION

1.1 Background

Modern economies, institutions, families and day to day life require power, particularly electric power. For industries engaged in the production and distribution of goods or service industries, electric power is so essential for virtually everything that needs to be done. In the agriculture, education, health and entertainment sectors, etc, electricity takes a pride of place and it is central to modern life. Thus, whether one is at work or at play or even asleep, electricity is a basic necessity and an essential intermediate input for economic and social development.

Nigeria's power challenge has persisted for decades and a previous development strategy, the National Economic Empowerment and Development Strategy (NEEDS) even recognized power as the most important infrastructure requirement for moving the private sector forward¹ and goes on to state that Nigeria's power system is so inadequate that it has held back economic progress and social well-being². Today, some companies have relocated out of Nigeria as a result of the cost of doing business which is accentuated by lack of electricity. The Manufacturers Association of Nigeria (MAN) and the National Association of Small Scale Industries (NASSI) have estimated that their members spend an average of about N2 billion on non-grid and alternative power supply³.

Nigeria has abundant energy sources such as coal and lignite, natural gas, crude oil, solar, hydro, geothermal, tide, biogas and biomass which can generate the quantity of electricity it requires. However, despite the available vast resources, only three resources (crude oil, natural gas and hydro) are currently utilized in processed forms while two others (wood fuel and solar) are used in their crude forms for heating, cooking and lighting.⁴ The country has struggled to generate between 3000 to 4000MW of electricity for over a decade but the target in Vision 20:2020, is to generate at least 40,000mw of electricity by 2020.

In the MTEF 2016-2018, the Federal Government of Nigeria (FGN) promised to increase economic diversification and strengthen linkages in the economy as well as improve access to energy supply through a commitment to bridge the infrastructure deficit. In the 2016 budget speech, the President laid emphasis on long term sustainable development investments including investments in the newly merged Ministry of Works, Power and Housing. However, a good part of the power sector has

¹ NEEDS, "Creating a Competitive Private Sector" at page 60.

² NEEDS, *supra*.

³ <http://www.vanguardngr.com/2013/02/the-challenges-of-the-nigerian-electric-power-sector-reform-1/>

⁴ Journal of Business Management and Applied Economics Vol. II, Issue 4 July 2013.

been devolved to the private sector under the Electric Power Sector Reform Act of 2005 (EPSRA). Generation and distribution are already in private hands whilst transmission remains in the public sector with a private sector manager as concessionaire.

1.2 Objectives of the Review

The 2016 Power budget review will examine the sectoral policies, projected funding requirements and the relevant statistics in the sector. It will review the budget votes to determine its adequacy and conformity with the projections and whether a funding gap exists. It will also determine whether Nigeria is deploying the maximum of available resources for the progressive improvement of the power supply situation. The review will take cognizance of the duties that have been devolved to the private sector. Finally, recommendations will be made to drive the sector in the required direction.

2. SECTORAL STANDARDS AND POLICIES

This will include a review of relevant policies and enabling laws.

2.1 Nigeria's Vision 20:2020

NV 20:2020 recognized that the power supply situation is characterized by inadequate generation and inefficient transmission and distribution. Nigeria's installed power generation capacity of about 10,000 megawatts is grossly inadequate to cater for the needs of a country of over 170million people. According to the NV 20:2020, the strategic roadmap for meeting the target of 40,000mw in the power sector will involve three phases; the first phase will involve the rehabilitation of existing power plants and completion of some on-going IPPs. Existing IPPs were to be encouraged to increase capacity and ongoing NIPP projects will be fast-tracked to achieve the target of 20,000MW by 2015. It proposed incentives and concessions for new entrants especially, for renewable power generation, in order to achieve additional generation capacity. Between 2011 and 2020, it is estimated that IPPs will generate additional 2000MW on annual basis. In the long term, additional large hydro plants, coal-fired plants, IPP and renewable power generating plants (hydro, solar and biomass) will be brought on stream to further increase power generation capacity to 35,000MW.

Private sector participation is required to drive the financial demand for this target. Some of the proposed key strategic initiatives to facilitate the development of a competitive and efficient power sector include: Provision of incentives to facilitate the utilization of alternative energy resources - hydro, solar, wind, biomass, coal and nuclear with a view to reducing the countries reliance on gas fired power plants and ensuring security of supply. Implementation of intensive manpower development initiatives and equipping the newly created National Power Training Institute in collaboration with tertiary institution, enhancement of transmission capacity and

providing redundancies in the transmission systems so as to ensure a fully integrated network that minimizes transmission losses while strengthening grid security. It proposed the provision of incentives to encourage local manufacturing and production of consumables used in the power sector; establishment of effective training institutions and programmes and enforcement of minimum local content components for power sector development and operational activities; complete privatization of distribution assets in order to provide efficient billing and collecting infrastructure and ensure international best practices in electricity distribution. Further, extension and optimization of the gas infrastructure grid network to support and facilitate the construction of gas-fired power plants across the country; development and mass deployment of appropriate renewable energy technologies (RET) for rural, semi urban and selective urban electrifications and heating. The funding requirement to meet the target of the NV20: 2020 has been put at an annual investment of \$3.5 billion for the next ten years starting from 2009.

2.2 National Renewable Energy Action Plan (NREAP) of Nigeria⁵

According to the NREAP⁶:

“The overall objective of the National Action Plan is to advance the development of renewable energies in Nigeria. Thus, this National Renewable Energy Action Plan provides details on the sets of measures and plans that would enable Nigeria to meet its 2020 and 2030 targets. But it is important to go a lot further. The Government will also seek to secure the country’s energy supplies through 2030 and beyond and provide a sound framework for businesses to develop in the new industries, providing jobs and cutting harmful greenhouse gases. The Nigerian Energy Roadmap, and the new National Renewable Energy and Energy Efficiency Policy sets out a range of pathways to ensure that Nigeria goes as far as possible in exploiting its renewable energy resources.

Again the Policy states that⁷:

The Nigerian Government believes that climate change is one of the threats facing the country, and that urgent action at home and abroad is required. Nigeria needs to use a wide range of levers to de-carbonise the economy. The development of renewable energy sources, alongside other clean energy technologies and the development of a strategic energy efficiency approach will also enable Nigeria to play its full part in regional efforts to reduce the production of harmful greenhouse gases.

⁵ Adopted by Inter-Ministerial Committee on Renewable Energy and Energy Efficiency (ICREEE) for High Level Validation of Honourable Minister, Federal Ministry of Power, Works & Housing, December, 2015.

⁶ At page 4 of the NREAP.

⁷ At page 5 of the NREAP.

The Policy therefore set the following targets in Table 1.

Table 1: Targets for the Share of Grid-connected Renewable Energy in 2010, 2020 and 2030

In MW Installed Capacity	2010	2020	2030
Renewable energy installed capacity in MW (excluding medium and large hydro)	85	3,639	18,507
Renewable energy share of the total installed capacity in % (excluding medium and large hydro)	0.8	8	16
Large and medium scale hydropower capacity installed in MW (more than 30 MW)	1,900	4,549	4,627
Large and medium scale hydropower (more than 30 MW) share of total electricity generation in %	22	10	4
Total renewable energy capacity in MW (including large and medium scale hydro)	1,985	8,188	23,134
Renewable energy share of the total installed capacity in % (including medium and large hydro)	23	18	20
Grid Connected Generation (GWh)	2010	2020	2030
Renewable energy electricity generation in GWh (excluding medium and large hydro)	634	27,097	137,809
Renewable energy share in the electricity mix in % (excluding medium and large hydro)	6	10	12
Large and medium scale hydropower generation in GWh (more than 30 MW)	14,430	33,872	34,452
Large and medium scale hydropower generation (more than 30 MW) as share of electricity mix in %	16	7	3
Total renewable energy generation in GWh (including medium and large hydro)	15,064	60,969	172,261
Renewable energy share in the electricity mix in % (including medium and large hydro)	22	17	15

Source: National Renewable Energy Action Plans (NREAP) (2015 – 2030)

2.3 The National Energy Master Plan (NEMP)

In view of the ever increasing demands for electricity in the country, NEMP which is produced by the Energy Commission of Nigeria recommends as follows:

- *Periodic review of the electricity laws and guidelines;*
- *Periodic review of the existing Multi-Year Tariff Order (MYTO);*
- *Total overhauling of power plants for greater efficiency;*
- *Fast tracking the completion of all on-going IPP and government funded generation, transmission and distribution projects;*
- *Rehabilitating, upgrading and continuous expansion of the national grid for a steady and reliable power supply;*
- *Establishing Electricity Research and Development Fund;*
- *Reviewing and enforcing the existing laws on vandalization of public utility infrastructure;*
- *Designing and implementing a long-term coordinated program for rural electrification based on distributed decentralized generation; Ensuring effective administration of Rural Electrification Fund.*

2.4 The National Integrated Infrastructure Master Plan (NIIMP)

According to the NIIMP, Nigeria has set ambitious objectives for the energy sector. For the power subsector, the Technical Working Group identified the following priorities:

- *Increase power generation to 20GW by 2018 and to 350GW by 2043, with focus on gas as the immediate priority and adding renewable sources after 2023;*
- *Strengthen and increase transmission capacity, with immediate focus on the national backbone; Increase distribution capacity, with priority placed on making power available for industrial users and reducing distribution losses;*
- *Finalize privatization of power generation and distribution, and extend privatization to include NIPP assets; Build capabilities, increasing human capacity 20 times by 2023 and 40 times by 2043;*
- *Increase rural electrification⁸.*

On the investment requirements, the NIIMP states:⁹

For power, the bulk of the investment will be required to increase generation capacity from current levels of about 7 GW to 350 GW (which will be largely funded by the private sector), to build the transmission network to transfer the generated electricity across the country and to distribute electricity to Nigerians (which will be funded by the private sector). The unit cost estimates for generation are expected to decline in the period 2024–43 as Nigeria becomes more efficient at building power plants and economies of scale exert downward pressure on costs. Over the next 5 years, Nigeria needs to spend USD 23 billion in power, of which USD14-16 billion will be required to increase generation capacity from current levels of about 7 GW to 20 GW by 2018, USD 3-5 billion to increase transmission capacity, and USD 3-5 billion to increase distribution capacity.

However, contrary to NIIMPs expectations, transmission is still under public control and as such needs public investments to improve its service delivery. Generation and distribution have been privatised.

2.5 Electric Power Sector Reform Act 2005

According to the long title, it is made as an Act to provide for the formation of companies to take over the functions, assets, liabilities and staff of the National Electric Power Authority, to develop competitive electricity markets, to establish the Nigeria Electricity Regulatory Commission (NERC); to provide for the licensing and regulation of the generation, transmission, distribution and supply of electricity; to enforce such matters as performance standards, consumer rights and obligations; to provide for the determination of tariffs and to provide for related matters.

⁸ http://www.niimp.gov.ng/?page_id=1190

⁹ http://www.niimp.gov.ng/?page_id=1190

Under the Act, NERC has been established and the successor companies in generation and distribution have been privatized whilst government still controls the Transmission Company of Nigeria. Thus, the major public investments in the sector should be in transmission and other support infrastructure. The Act also sets up a Rural Electrification Agency and a Rural Electrification Fund.

3. RELEVANT STATISTICS ON POWER

In this section, the study reviews two relevant statistics on power in Nigeria and in some selected countries within and outside Africa. This will facilitate a comparison of developments in the power sector with comparator countries. It also reviews the extant ownership structure of the Nigerian electricity industry.

3.1 Capacity, Utilisation Factor and Value Chain Losses, 2015

Table 2 shows the capacity, utilization factor and value chain losses in selected countries as at 2015.

Table 2: Capacity, Utilisation Factor and Value Chain Losses, 2015

Country	Total Power Capacity (GW)	Utilization Factor (% of Installed Capacity)	TD Losses (% of Power Generated)
Nigeria	12.5	31%	19%
Brazil	121.7	55%	21%
Ecuador	5.4	49%	15%
Egypt	27.0	63%	16%
India	254.7	55%	22%
Malaysia	28.5	53%	14%
Mexico	62.3	55%	27%
New Zealand	9.5	54%	10%
Norway	32.3	47%	9%
Peru	9.7	47%	13%
South Africa	44.2	66%	10%
UK	85.0	48%	8%
Ukraine	55.2	40%	10%
Vietnam	24.5	73%	33%

Source: Nigeria Power Baseline Report, 2015, BMI Research, PwC Analysis

In terms of installed capacity, Nigeria is only ahead of Ecuador, New Zealand and Peru whilst it is the country with the lowest utilization of its installed capacity. Only Vietnam, Mexico, India and Brazil lose more energy in transmission and distribution losses than Nigeria. The Power Baseline Report puts it succinctly as follows¹⁰:

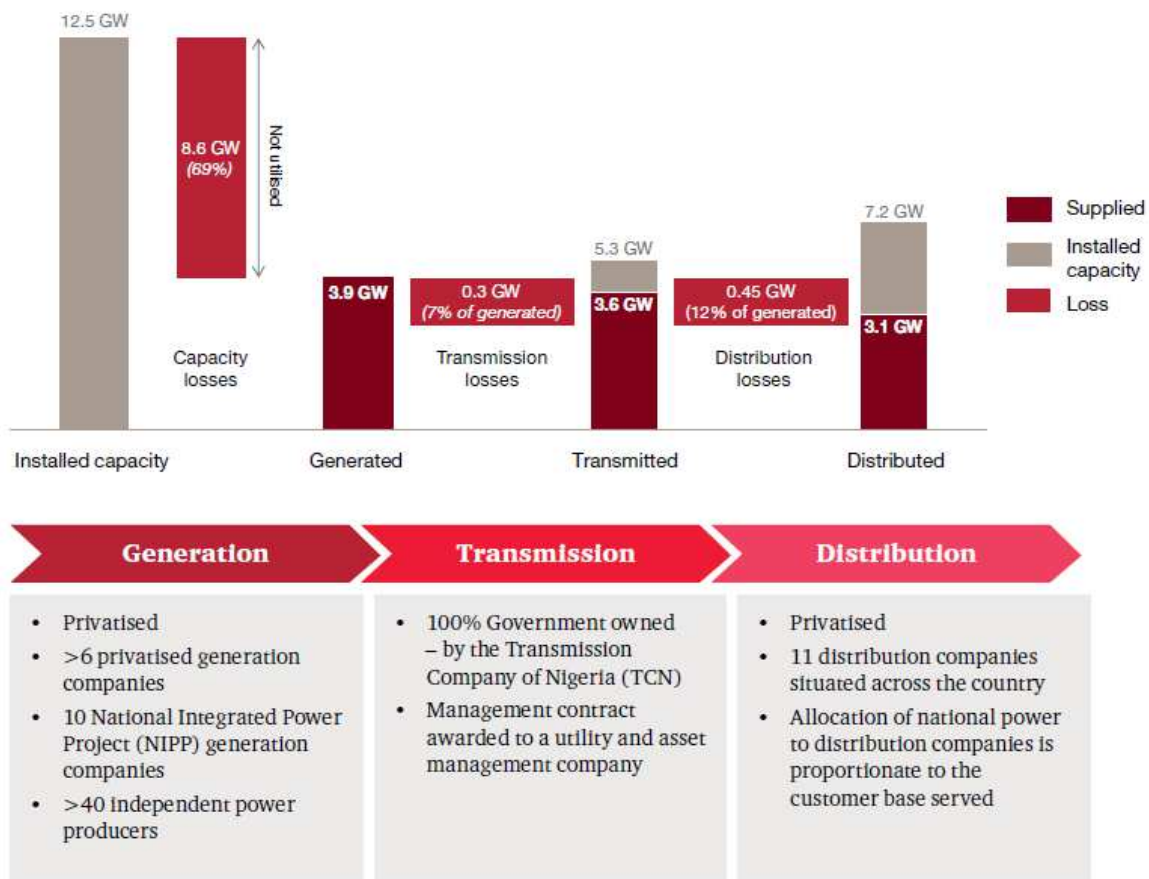
In 2015, installed generation capacity (defined as total available power generation capacity, assuming the power plants are operating at 100% efficiency) was estimated at 12.5GW. Of this capacity, only 3.9GW was actually generated - a capacity utilization of

¹⁰ Power Baseline Report at page 11.

only 31%. Exacerbating this loss, 7% of generated power (0.3GW) was lost through the transmission process and a further 12% (of the 3.9GW) through distribution resulting in a cumulative transmission and distribution loss of 19% of generated power. Overall, the net power available was 3.1GW, which was only 25% of installed generation capacity of 12.5GW. These substantial losses across the value chain can be attributed to two key causes - technology limitations and outdated infrastructure.

Table 2 above shows that a country of over 170m people has about 3.1GW of electricity to power its industries, farms, offices, homes, etc. Figure 1 shows graphically the installed capacity, supply and losses across the value chain.

Figure 1: Installed Capacity, Supply and Losses across the Power Value Chain in Nigeria (GW) 2015



Source: Nigeria Power Baseline Report, 2015, BMI Research, PwC Analysis

Essentially, more public and private investments are needed across the value chain to make at least, over 60% of the installed capacity available for utilization, as well as to reduce transmission and distribution losses.

3.2 Electricity Consumption per Capita

Table 3 shows electricity consumption per capita in selected African countries as at 2014.

Table 3: Electricity Consumption per Capita in Selected African Countries

Country	Electricity Consumption Per Capita (Kwh Per Person)
South Africa	4,841.28
Libya	4,042.17
Egypt	1,408.59
Tunisia	1,215.08
Algeria	867.73
Gabon	862.13
Morocco	715.73
Zambia	543.77
Mozambique	412.68
Cameroon	223.99
Ghana	206.19
Cote D' Ivoire	169.15
Senegal	162.81
Kenya	136.64
Nigeria	115.04
Togo	91.97

Source: <http://www.indexmundi.com/g/r.aspx?v=81000>

Table 3 shows that Nigeria's energy use per capita is second to the last among the compared countries. It shows a sector in need of new megawatts of electricity to serve the large population. This low energy use per capita has implications for economic growth and productivity and contributes in no small measure to the stalled realisation of Nigeria's economic potentials.

3.3 The Generation and Distribution Chain have been Privatized

Nigeria has completed the full privatization of the generation and distributions arms of the electricity value chain. Ideally, this should imply that public funding for these subsectors should cease and the private sector takes over investments. The transmission arm is still under government control. However, it is run by a management concessionaire who is expected to bring technical expertise for the reform of the sector whilst government continues providing the funding. Electricity consumption tariffs have been twice reviewed and new owners have taken full control of the investments.

4. PROVISIONS FOR POWER IN THE 2016 BUDGET

4.1 Introduction

This section will review the 2016 budget's provisions on power and a trend analysis of previous powers sector budgets from 2013 to determine their convergence with key policy and funding provisions. It will review the key provisions in the overall power envelope, recurrent and capital expenditure and their comparisons to other sectors as well as the funding gap (if any). It will also highlight capacity deficits and frivolous, inappropriate and wasteful expenditure heads.

The key actions, strategy and policy for infrastructural intervention to be carried out under power include¹¹:

- *Optimize the 7,000MW installed power capacity and ensure associated infrastructure to fuel, transmit and distribute this capacity to be operational and effective;*
- *Complete the privatization of NIPP plants and improve the management and performance of TCN;*
- *Ensure Tariff includes all costs of transmission, generation and gas at the new price as well as DISCO costs required to operate, maintain and upgrade distribution networks;*
- *Resolve all issues on Gas pricing, Tariff and Payment Assurance. Conclude Roadmap on Gas Development.*

The 2016 budget itemized the following projects under power as projects meant to optimize and deliver consistently the 7,000mw of power:

- *N5.5 billion for Construction of 215MW Gas Power Plant;*
- *N1.2 billion for Construction of 2 x 60 MVA Connection of Gurara to National Grid;*
- *N235.7 million for Coal to Power development in Enugu, Benue, Gombe and Kogi;*
- *N303.9 million for the Completion of Ongoing Construction of ITC/TDN and Installation of Injection and Distribution Substations;*
- *N305.3 million for Completion of Small Scale Renewable Energy Power Plants Development;*
- *N1.1 billion for the Generation of 700MW from Zungeru Hydro Power Project;*
- *N324.2million for Completion of Rural Electrification Scheme in 23 Communities in Ondo;*
- *N250.7 million for Completion of Ongoing Electrification Project in Kano State¹².*

¹¹ 2016 Change Agenda: A Citizens Guide to Understanding FGN Economic Policy and the 2016 Budget at page 8.

¹² 2016 Change Agenda: A Citizens Guide to Understanding FGN Economic Policy and the 2016 Budget at page 15.

Table 4 shows the allocations to the electricity agencies under the Ministry of Works, Power and Housing.

Table 4: Line Agency Allocations to Power in 2016 Budget

Federal Ministry Of Works, Power & Housing						
	Agencies	Total Personnel	Total Overhead	Total Recurrent	Total Capital	Total Allocation
02310030 01	NATIONAL RURAL ELECTRIFICATION AGENCY	690,429,316	92,027,160	782,456,476	11,111,713,662	11,894,170,138
02310050 01	ELECTRICITY MANAGEMENT SERVICES LIMITED (EMSL) HQTRS	1,056,399,693	207,241,935	1,263,641,628	1,260,105,416	2,523,747,044
02310100 01	NATIONAL POWER TRAINING INSTITUTE	768,621,649	133,108,201	901,729,850	1,173,155,564	2,074,885,414
02310110 01	NIGERIA ELECTRICITY LIABILITY MANAGEMENT LIMITED	157,141,391	50,573,678	207,715,069	1,138,365,500	1,346,080,569
02310200 01	TRANSMISSION COMPANY OF NIGERIA	0	0	0	30,398,448,031	30,398,448,031
02310340 01	NIGERIAN BULK ELECTRICITY TRADING PLC	0	0	0	772,673,171	772,673,171
Total		2,672,592,049	482,950,974	3,155,543,023	45,854,461,344	49,010,004,367

Source: FGN 2016 Budget, Ministry of Power Works and Housing

Table 4 shows a total allocation of N49bn for six agencies put together in the ministry. The National Rural Electrification Agency, Electricity Management Services Limited (EMSL), National Power Training Institute, Nigeria Electricity Liability Management Limited, Transmission Company of Nigeria and the Bulk Electricity Trading Plc are six agencies put together that received a total allocation of N49.010bn in the 2016 budget. They received a total capital vote of N45.854bn. Recurrent expenditure stands at N3.155bn; overheads at N482m and total personnel got N2.672bn.

4.2 Four Year Allocations to Power and the Funding Gap

The NIIMP states that over the first 5 years, Nigeria needs to spend USD23 billion in power, of which USD14-16 billion will be required to increase generation capacity from current levels to 20 GW by 2018; USD3-5 billion to increase transmission capacity; and USD3-5 billion to increase distribution capacity¹³. Table 6 below shows the allocation to power sector from 2013 to 2016. To establish the funding requirement, the total sum of USD23 billion will be divided by 5years and it comes to USD4.60billion a year. The foreign exchange dollar conversion rate of N159.9 to 1USD, N183.5 to 1USD, N199.1 to 1USD and N315 to 1USD for the years 2013, 2014, 2015 and 2016 respectively will be used to find the naira value¹⁴. The Minister for Works, Power and Housing is reported to have indicated that of the total allocation of N 456,936,811,203 to the Ministry, 23% of this amount will be spent on power¹⁵. It is this 23% of the overall FMWPH vote that we will use to calculate the allocation to power.

Table 5: Budget and Funding Gap in Nigeria Power Sector

Year	Overall Federal Budget (N Millions)	Total Allocation to Power (N Millions)	Vote to Power Sector as a % of Overall Vote	\$4.60bn NIIMP Requirement	Variance between and allocation to Power
2013	4,987,220,425,601	77,565,547,652	1.56	735,540,000,000.00	657,974,452,348.00
2014	4,695,190,000,000	63,212,100,633	1.35	844,100,000,000.00	780,887,899,367.00
2015	4,493,363,957,158	9,606,813,831	0.21	915,860,000,000.00	906,253,186,169.00
2016	6,060,677,358,227	105,095,466,577	1.73	1,449,000,000,000.00	1,343,904,533,423.00

Source: Approved Budget, Budget Office of the Federation and NIIMP

Table 5 shows that the Federal Government voted 1.56%, 1.35%, 0.21% and 1.73% of the overall federal allocations to the power sector in 2013, 2014, 2015 and 2016 respectively. This is an average allocation of 1.21% of the overall budget over the four year timeframe. The variance for the four years cumulatively amounts to N3,689,020,071,307 whilst it came up to an average of N922.255 billion a year. The total allocation to power in 2015 was exceptionally low and stands in sharp contrast with that of 2016. The overall budget for 2016 is higher by 29.08% and 34.88% when compared to the 2014 and 2015 votes respectively. The high sums in the variance column show the level of funding gap in the sector. It is acknowledged that some of the funds projected in the NIIMP were expected to come from the private sector. However, Table 5 still shows that the FGN is lagging behind in achieving its set power sector infrastructural goals through the NIIMP.

¹³ http://www.niimp.gov.ng/?page_id=1190

¹⁴ [FX-rate.net/NGN/?date_input](http://fx-rate.net/NGN/?date_input)

¹⁵ Vanguard February 16, 2016.

Considering that FGN has privatized generation and distribution whilst still holding on to transmission, it is imperative to construct another table which shows the allocations in relation to the demand of the transmission subsector. Table 6 shows the allocations and the demands of NIIMP in transmission and the variance.

Table 6: Allocation to Power (Transmission) and the Funding Gap in the Context of NIIMP

Year	Total Allocation To Power	\$1 Billion	Total Allocation As A Percentage Of \$1 Billion	Variance
2013	77,565,547,652	159,900,000,000.00	48.51	82,334,452,348.00
2014	63,212,100,633	183,500,000,000.00	34.45	120,287,899,367.00
2015	9,606,813,831	199,100,000,000.00	4.83	189,493,186,169.00
2016	105,095,466,577	315,000,000,000.00	33.36	209,904,533,423.00

Source: Approved Federal Budgets 2013-2016, BOF

Table 6 shows that the funding in the years 2013, 2014, 2015 and 2016, only 48.51%, 34.45%, 4.83% and 33.36% respectively of the NIIMP projection was provided in the budget. Over the four year horizon, this creates a total funding gap of N602.020 billion and average funding gap of N150.505 billion a year. Again, the demands of the sector have not been met by FGN funding.

4.3 Composition of the Allocations 2013-2016

Table 7 shows the distribution of the FGN allocation between capital and recurrent expenditure in the Power Sector over the 4 year period of this review.

Table 7: Composition of Power Allocations 2013-2016

Year	Total Allocation to Power (₦ Mn)	Recurrent Expenditure (₦ Mn)	% of Recurrent Expenditure to Total Power Allocation (₦ Mn)	Capital Expenditure (₦ Mn)	% of Capital Expenditure to Total Power (₦ Mn)
2013	77,565,547,652	4,217,589,189	5.44	73,347,958,463	94.56
2014	63,212,100,633	3,397,810,244	5.38	59,814,290,389	94.62
2015	9,606,813,831	4,476,813,831	46.60	5,130,000,000	53.40
2016	105,095,466,577	7,813,533,023	7.43	97,281,933,554	92.57

Source: Approved Budgets, BOF

Table 7 shows that FGN allocated over the four years, an average of 16.21% of the total power sector allocations to recurrent expenditure while it allocated an average of 83.79% of the total power allocations to capital expenditure. This trend of allocation reveals that investment in power infrastructure as articulated in NIIMP stalled in 2015 with lesser funds available for investment. It picked up in 2016. For this allocation to be meaningful, the whole voted sum should be released and fully utilized. Overall, there

seems to be consistency in favour of capital expenditure in the distribution of funds between recurrent and capital expenditure over the four years of this review.

Table 8 below shows capital allocation to power as a percentage of overall capital vote.

Table 8: Capital Allocation to Power as a Percentage of Overall Capital Vote

Year	Total Capital Budget to all Sector	Capital Allocation to Power	Capital Allocation to Power as a % of Overall Capital for the Year
2013	1,591,657,252,789	73,347,958,463	4.61
2014	1,119,614,631,407	59,814,290,389	5.34
2015	556,995,465,449	5,130,000,000	0.92
2016	1,587,598,122,031	97,281,933,554	6.13

Source: Approved Budgets, BOF

The sector attracted 4.61%, 5.34%, 0.92% and 6.13% of the overall capital expenditure for the years 2013, 2014, 2015 and 2016 respectively. Apart from the 2016 capital allocation, the rest depict a low level of commitment towards revitalizing the sector.

Table 9 shows the recurrent allocation to Power as a percentage of the overall recurrent vote for the years 2013 to 2016. The same 23% earlier stated as the vote of the power sector was used as a basis for arriving at the share of recurrent expenditure.

Table 9: Recurrent Allocation to Power as a Percentage of Overall Recurrent Votes

Year	Total Recurrent Budget for all Sectors	Recurrent Budget Allocation to Power	Recurrent Allocation to Works as a % of Overall Recurrent for the Year
2013	2,415,745,972,812	4,217,589,189	0.26
2014	2,454,887,566,702	3,397,810,244	0.30
2015	2,607,132,491,708	4,476,813,831	0.80
2016	2,646,389,236,196	7,813,533,023	0.49

Source: Approved Budgets, 2013-2016, BOF

From Table 9, it could be deduced that there has been some consistency in the trend of recurrent budget allocation to the power sector.

4.4 Releases, Cash Backed and Utilised Parts of the Capital Budget

There are usually variances between the budgeted sums and the released sums in the Nigerian budgeting practice. Sometimes, the released sums are not always fully cash backed. The utilization of the released sums is also low. Table 10 shows a picture of the position in the Power sector between 2013 and 2015¹⁶.

¹⁶ Please note additional AIEs of N2,793,000,001 was approved and released to Federal Ministry of Power in 2015 from the Service Wide Vote to augment their capital appropriation.

Table 10: Allocations, Releases, Cash Backed and Utilized Sums in Sector Budget 2013-2016

Year	Capital Budget Allocation to Power	Total Released	Total Cash Backed	Utilization	% of Capital Utilized	% of Released Budget Utilized	% of Cash Backed Utilized
2013	73,347,958,463	49,213,422,043	49,213,422,043	39,554,121,008	53.93	80.37	80.37
2014	59,814,290,389	48,326,791,710	48,326,791,710	47,589,473,150	79.56	98.47	98.47
2015	5,130,000,000	7,923,000,001	7,923,000,001	7,174,439,405	139.85	90.55	90.55
2016							

Source: Budget Implementation Reports, Budget Office of the Federation of Nigeria

In 2013, only 58.93% of the capital allocation was utilized; the utilization rate increased to 79.56% in 2014 and moved up to 139.85% in 2015. It was only in 2015 that the full capital vote was fully utilized and even surpassed the budgeted figures. But the extra expenditure for 2015 is not supported by legislative appropriation. For the first two years, the paltry capital expenditure was hardly utilized and this is poor compared to international benchmarks.

Table 11 shows other parameters between released and cash backed percentages of the Power sector budget.

Table 11: Released, Cash Backed as a Percentage of Total Power Capital Vote

Year	Capital Budget Allocation to Power	Total Released (N)	Total Cash Backed	% of Capital Budget Released	% of Total Capital on Works Budget Cashed Backed
2013	73,347,958,463	49,213,422,043	49,213,422,043	67.10	67.10
2014	59,814,290,389	48,326,791,710	48,326,791,710	80.79	80.79
2015	5,130,000,000	7,923,000,001	7,923,000,001	154.44	154.44
2016		-	-		

Source: Budget Implementation Reports, Budget office of the Federation of Nigeria

Table 11 shows the released and cash backed sums were the same all through.

4.5 Unclear Line Items

Repeated line items having several amounts allocated to them can be found in the budget. In Table 12 below, it is discovered that the Zungeru Power Project came up 6 times with virtually the same subheading and different votes. It is not clear what the different amounts are voted for. Coal to power generation for Enugu, Benue and Gombe came up two times in the budget. Table 13 below shows some of the unclear line items in the power sector budget.

Table 12: Unclear Line Items in the Power Sector Budget

UNCLEAR PROVISIONS IN THE 2016 MINISTRY OF POWER BUDGET			N
MOPWH161021632	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	500,000,000
MOPWH161021634	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	113,465,000
MOPWH161021636	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	139,426,180
MOPWH161021638	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	126,624,383
MOPWH161121600	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	93,767,500
MOPWH161021640	GENERATION OF 700 MW FROM ZUNGERU HYDROPOWER PROJECT	NEW	100,000,000
MOPWH165021531	COAL TO POWER GENERATION DEVELOPMENT IN NIGERIA IN ENUGU AND GOMBE/BENUE/KOGI	NEW	72,000,000
MOPWH161021643	COAL TO POWER GENERATION DEVELOPMENT IN NIGERIA IN ENUGU AND GOMBE/BENUE/KOGI	NEW	234,979,698
MOPWH165021585	SUSTENANCE OF EFFECTIVE BUDGETING SYSTEM	NEW	20,430,000
MOPWH165021588	SUSTENANCE OF EFFECTIVE BUDGETING SYSTEM	NEW	18,000,000
MOPWH165021591	SUSTENANCE OF EFFECTIVE BUDGETING SYSTEM	NEW	13,280,000

Source: 2016 Approved Budget of the FMWPH

Again “sustenance of effective budgeting system” was repeated thrice with different sums of money voted for the purpose. But this is a nebulous expenditure description. What exactly is the money voted for?

In a budget for three key sectors that are merged into one Ministry, there is a provision for Sustainable Development Goals Projects 1 and 2 for N4billion and N5billion respectively without a list of projects to be executed. This is coming after provisions have been made in Service Wide Votes for SDGs. This provision in the budget of the FMWPH should have been disaggregated between works, power and housing so that the projects become specific and known to the public.

4.6 The Nuclear Power Programme

Under the Service Wide Votes, there is a provision for financing the implementation of Nigeria’s Nuclear Power Programme (Seed Money) in the sum of N2billion. This provision at a time some major nuclear powers like Germany and Japan are shutting down their nuclear power plants is ill timed. When our lack of the requisite technical capacity is combined with the tendency to mismanage projects, this project is bound to waste resources and if badly mismanaged, it will waste human lives as well. It is not an environmentally sustainable project and needs to be discontinued.

4.7 The Budget and Power Sector Privatization Initiatives

The power budget is suffused with so many rural electrification projects which mainly seek to extend the distribution lines to reach otherwise unreached communities. There are also provisions for transformers and distribution accessories. However, distribution of power has been privatised and these are all public budgetary interventions in the domains of the Distribution Companies. Thus, FGN is paying for what should have been paid for by the DISCOs.

4.8 The Allocation to Transmission Company of Nigeria

The Transmission Company of Nigeria got the highest allocation of N30.3bn, followed by National Rural Electrification Agency which got N11bn. The Transmission Company of Nigeria is one of the 18 companies that were unbundled during the privatization exercise. The TCN was not privatized. Transmission is one of the major challenges in the power sector. The target of increasing transmission capacity from 5000MW to 7000MW, 10,000 MW to 13,000 MW to 16,000 MW and 20,000 MW over 5 years from 2015 is the responsibility of the TCN.

Some of the challenges facing the TCN include: Radial Lines with no redundancies; obsolete substation equipment; overloaded transmission lines and substations; inadequate coverage of infrastructure and limited funds for development projects. Others are high technical and non-technical loss; limited training opportunities and community issues during project execution.

The Minister of Power noted that there is a huge challenge in the transmission of power, from the generation plants, to the distribution companies who then take it to the homes, offices, factories etc. In his words:

“The TCN transports power by building transmission towers and stringing electricity cables, which we call high tension wires here, and installing Transmission, Transformers and so on. Today they can only transport 5000 MW. That is all we have done since 1950. We must do more and we are on the way. There are currently about 126 projects awarded for this purpose but with all sorts of problems. We must do more and we are on the way. About 907 containers of various equipment imported in the ports, paid for, have been abandoned with demurrage, port charges and all sorts of costs by contractors who have deserted their contracts. Approvals have been given by Mr. President for their release; we have met with Customs, the shippers, the warehouse owners and operators all of whom have shown an inspiring sense of patriotism to release the containers. These meetings are being chaired by the Vice President. The containers, expectedly contain all sorts of equipment, which hopefully when recovered will help solve some of our transmission problems”¹⁷.

¹⁷ <http://www.tundefashola.com/archives/news/2016/05/05/20160505N01.html>

FGN needs to channel more resources into the transmission sector for the power sector to realize its potentials.

5. MATTERS ARISING FROM THE POLICIES, RELEVANT STATISTICS AND BUDGET

This section reviews the matters arising from the policies, relevant statistics and the annual appropriations and their contribution to the current state of the sector.

5.1 Capacity, Utilisation and Value Chain losses

Nigeria ranks poorly when compared to countries in Africa and in other parts of the world in terms of its installed capacity to generate electricity; its utilization factor is also very low whilst its transmission and distribution losses are also high. The sector is in need of massive financial and technical investments to shore up its capacity. In terms of electricity consumption per capita, Nigeria is also one of the lowest in the world and has only 115.04kwh per capita. Therefore, Nigeria does not have enough electricity to power its industries, farms, offices and homes.

5.2 NIIMP Underestimated the 5 Year Funding Requirement

Transmission is the part of the value chain still under public funding. Generation and distribution have been privatized. NIIMP estimates that between USD 3-5billion will be need to improve transmission capacity to 20GW by 2018. For a grid network that cannot wheel more than 5,500MW of electricity and confronted with a plethora of challenges aforesaid¹⁸, USD5billion will not be enough to fix the grid. When the idea of constructing a Super Grid was raised by the President Goodluck Jonathan administration, the initial cost estimate was put at USD7billion. Beyond the Super Grid, the transmission challenge requires massive investments, at least, double the NIIMP estimate. Again, NIMP estimates that USD3-5billion will be required to fix distribution. Evidently, that sum of money will not be enough to tackle distribution challenges across the federation.

5.3 The Sector is Underfunded

In terms of resources needed to turn around the sector, the sector is underfunded by public and private stakeholders. Even if the transmission estimate (which is still publicly funded) is used to calculate the funding requirement, the FGN is still not meeting half of the demands. Accordingly, for an estimate of N159.9bn, FGN provided N77.565 billion in 2013; in 2014, it provided N63.212 billion instead of the estimate of N183.5billion. In

¹⁸ Radial Lines with no redundancies; obsolete substation equipment; overloaded transmission lines and substations; inadequate coverage of infrastructure and limited funds for development projects. Others are high technical and non-technical loss; limited training opportunities and community issues during project execution.

2015, N9.606 billion was provided against the estimate of N199.1 billion whilst 2016 got allocation of N105.095 billion against the NIIMP estimate of N315 billion. Further, when it is considered that FGN is still investing in generation and distribution, the funding gap increases. Thus, the sector is in need of more resources and investment.

5.4 Capital Budgets are not fully Implemented

In accordance with the tradition across the sectors, capital budget votes are not fully implemented in a sector that requires massive capital infusion. Inadequate releases and poor implementation will over the years lead to time and cost overruns and thereby increase the cost of project delivery. For 2013 and 2014, it was 53.93% and 79.56% respectively. 2015 was an exceptional year because the vote was very low and money exceeding appropriation was spent without legal backing. This will not augur well for the implementation of improvements required by Vision 20:2020 and the NIIMP.

5.5 Alternative Funding Ideas have not been Explored

Various ideas have been articulated in the NIIMP and other plans on alternative sources of financing infrastructure projects including the use of special purpose vehicles, public pension funds, infrastructure or sector specific bonds. Up to 20 per cent of the Nigerian public pension fund which is in excess of N5.729 trillion can be allocated to infrastructure under the Investment Rules but no such investments have yet been made. The implication is that about N1.15 trillion is available for investment into infrastructure including power sector infrastructure. Access to the pension fund can be unlocked by collaboration between the Pensions Commission, Debt Management Office, Central Bank of Nigeria, Ministry of Finance and the Presidency.

5.6 REA and the Challenge of Sustainability

The Rural Electrification Agency which got the second highest allocation of N11bn is charged with achieving more equitable regional access to electricity; maximizing the economic, social and environmental benefits of rural electrification subsidies; promote expansion of the grid and development of off-grid electrification and stimulate innovative approaches to rural electrification¹⁹.

In the 2016 budget, most of the projects in REA are for rural electrification, provision and installation of transformers in rural communities and installation of solar power. The Minister of Works, Power and Housing noted that there are 2,100 rural projects in previous budgets which are mainly uncompleted constituency projects that are to be completed in the 2016 budget²⁰. The central poser is; who will maintain these facilities after their installation when federal funding is no longer available. This is pertinent

¹⁹ Section 88 (13) of EPSRA, 2005.

²⁰<http://www.tundefashola.com/archives/news/2016/05/05/20160505N01.html>

considering the low capacity of DISCOs to invest in grid expansion, maintenance and rehabilitation.

5.7 Generation and Distribution are not working at Optimum Capacity

Allied to and as an offshoot to the REA challenge is the fact that GENCOs and DISCOs are not working at their optimum capacities due to a plethora of challenges. This has contributed to FGN falling for the bait of continued investments especially in the distribution chain of power. This raises issues around; whether the privatization of the generation and distribution value chain was successful.

5.8 No Clear Pathway for Renewable Energy

The 2016 budget does not seem to have clear policy content in terms of funding renewable energy. The few renewable energy projects are not tied to the implementation of any policy targets and there are no fiscal policy incentives to promote the adoption of renewable energy. In the absence of fiscal incentives, private sector DISCOs have hardly considered using renewable to expand access to grid connections.

5.9 No MTSS for the Sector

In accordance with the Fiscal Responsibility Act (FRA), the appropriation process should properly start with the preparation of Medium Term Expenditure Framework and its underlying Medium Term Sector Strategies. Both the MTEF and the MTSS are three year medium rolling frameworks in which the provisions of the first year of the framework determine the budget of the next financial year. Section 18 of the FRA is unequivocal in making the MTEF the basis for the preparation of the annual budget, including the need for the budget to be consistent with its sectoral and compositional distribution and its medium term developmental priorities. The MTSS reviews high level national policies in the sector, ongoing and new projects and seeks to determine the ones that will best facilitate the realisation of government's objectives in view of limited available resources.

5.10 Merger of Works, Power and Housing

Works, Power and Housing were three different and strategic ministries before their merger into one. These ministries are strategic to the economic growth of Nigeria and as such, they require special attention. Their merger creates various challenges. These include the fact that inadequacy of allocations to the sectors will be masked by the rather large and may be, the highest single ministerial vote. But they would have had more allocation if they were three different ministries. Leaving these three key sectors under one management may not allow adequate attention to be given to each of them. One or two of them may suffer when attention is fixed on one.

5.11 Other Issues

There are other issues outside of funding the ministry that will affect the capacity of the FMWPH to realise the goals set in the 2016 budget. They include the issue of availability of gas to fire the gas generating sets, resolution of the tariff challenge, vandalization of pipelines and other energy infrastructure which in itself is linked to the Niger Delta crisis, etc. Also, there is the need to enact an appropriate legislative framework to guide the oil and gas sector which provides the fuel to power existing gas fired plants. The Petroleum Industry Bill which has been in the works needs to be passed into law by the National Assembly and assented to by the President. Thus, the Nigerian power challenge requires a cross cutting and cross sectoral approach for its resolution. Interventions should not be limited to the domains of the power sector alone.

6. CONCLUSION

The power sector is faced with tremendous challenges that seem to have defied solutions. From the days of the Obasanjo administration, driven by NEEDS to the present day, more funds have not translated into increased availability of electricity to Nigerians. Nigeria is reputed to have spent more than USD 20billion since 1999 to date on electricity. Indeed, availability and access to electricity has no links to the resources spent in the sector. This means that more expenditure have yielded increased darkness. The poor governance of the sector has been responsible for this situation. Thus, electricity governance reforms is one the critical needs of the sector if greater and improved service delivery is to be delivered.

7. RECOMMENDATIONS

The following are key recommendations:

7.1 De-merge the Ministries of Works, Power and Housing: The strategic nature and contributions of these three sectors to national development implies that they should be stand alone ministries with very competent hands running them separately. The challenges facing the sectors are too big to be combined in one ministry. Whatever benefits (including cost savings) that may possibly accrue from the merger will be outweighed by the cost implications of not moving speedily enough to allow the sectors contribute their quota to economic growth and development.

7.2 Increase Public Funding of the Sector: Public funding to the sector should be increased by at least 50% for the 2017 budget year.

- The funds should be strategically targeted at improving capacity and utilising the available capacity.

- At least, FGN should seek to meet the preliminary funding requirements stated in NIIMP.
- The funding requirements of the NIIMP should be reviewed to reflect present economic and social realities.

7.3 Capital Budgets Should be fully Implemented: FGN should consider ring-fencing capital votes across the sectors to ensure that the variance between the allocations and actual implementation does not exceed 5%. Further, cost reducing measures targeted at recurrent expenditure should be implemented by FGN. Revenue forecasts should be realistic and not overtly optimistic to guarantee availability of funds to pay for capital projects. Funds should be fully released on time to meet expenditure needs.

7.4 Explore Alternative Funding Ideas: Various ideas have been articulated in the NIIMP and other plans on alternative sources of financing infrastructure projects. In the power sector, FGN should explore:

- Use of special purpose vehicles to raise funds from Nigerians in Nigeria and in the Diaspora.
- Public pension funds invested on bankable power projects that will make returns to the contributors at the appropriate time.
- Transmission infrastructure specific bonds floated at the local or international stock exchanges.
- Compelling DISCOs and GENCOs to become public companies floated on the stock exchange to be able to raise money from the public to finance their programmes.
- FGN should consider private sector funding for the transmission grid under an appropriate framework that does not endanger national security.

7.5 Provide Fiscal and other Incentives for Renewable Energy: Renewable energy use needs to be incentivized by fiscal strategies including the adoption of appropriate feed in tariff. This should be seriously considered in the 2017 budget process.

7.6 Stop Further Allocations to the Nuclear Energy Programme: FGN should consider stopping further allocations to the nuclear energy programme as it is not in the overall national interest.

7.7 Budget Line Items Should be Clear Enough: Repeated budget line items and unclear budgeting should not feature in the 2017 power sector budget. Also SDG projects and Service Wide Votes should be sufficiently disaggregated to guarantee transparency and accountability in public expenditure management.

7.8 Prepare MTSS for the Sector: In accordance with the Fiscal Responsibility Act (FRA), the appropriation process should properly start with the preparation of Medium Term Expenditure Framework and its underlying Medium Term Sector Strategies. The MTSS should be prepared by a properly constituted sector team where all major stakeholders including civil society are represented.

7.9 Review Agreements with Privatized Companies GENCOs and DISCOs: Relevant FGN agencies including the Bureau of Public Enterprises, NERC and the Ministry should review the agreements signed with the owners of the privatized GENCOs and DISCOs with a view to ensuring that they meet the targets set for them at the point of devolution. It is clear that the DISCOs especially are failing to meet targets in terms of cutting distribution losses, expanding metering and replacement of old dilapidated equipments.

7.10 Resolve the Niger Delta Challenge: Beyond the budget, the challenge of pipeline vandalism and militancy in the Niger Delta affects the supply of inputs such as gas to the GENCOs which, in turn affects the utilization factor and available electricity. Engagement and dialogue with the leaders and youths in the region is imperative for the stabilization of the Nigerian electricity situation.

7.11 Devolve Rural Electrification to States, Local Governments and DISCOs: There are fundamental questions about the rationality and desirability of continued federal funding for rural electrification. This should be devolved to the states and local governments with clear agreements between them and the DISCOs. The devolution would include transfer of the funds to the lower tiers of government. However, the scenario of government's continued investments in distribution whilst the DISCOs collect tariffs is a bit odd and needs to be resolved. The idea of privatization of DISCOs was in part to free government of the funding demands for the sector.