COMMUNIQUE AT THE ROUND TABLE ON POWER INFRASTRUCTURE, INVESTMENT AND TRANSFORMATION AGENDA

INTRODUCTION

The world over, the relevance of the power sector in the overall development and sustenance of the economy of any nation cannot be overemphasized. In Nigeria today, the daunting challenge of getting it right in the electricity sector is no longer news. Successive regimes have continued to make the power sector an area of concern and to tackle.

Because of the relevance of the power sector, discussion on it has remained immanent just as it remains every body's concern in the country. This is not unconnected with the fact that a viable power sector will inevitably have a trickledown effect on every sector of the economy.

Statistics now show that power generation now stands at 3000-4000mw but supply remained generally very erratic and unsatisfactory following faults and deficiencies caused by drop in power generation and transmission network

The Nigerian Institute of Advanced Legal Studies is mindful of the prevailing issues and challenges in the power sector and in pursuit of her statutory mandate has organized this one-day roundtable to provide a platform on which stakeholders will discuss this all important issue with a view to charting a way forward for national development.

The panel of discussants include experts in the power sector, erudite scholars, experienced chief executives and stakeholders who did justice to the various perspectives at the roundtable which include: The Political Economy of Infrastructure Investment in Nigeria; Nigeria's Dual Energy Problems: Policy Issues and Challenges; Investment in Electricity Generation and Distribution in Nigeria: Transformation Agenda in Perspective; Increasing Public Private Partnership in the Power Sector in Nigeria; The Legal and Regulatory Regime for Promoting Investment in the Power Sector; Electricity Power Generation and Transmission in Nigeria: Issues and Challenges and Overview of the role of Nigerian Electricity Regulatory Commission in Power Transformation Agenda in Nigeria. The session had Dr. Sam Amadi, Chairman/Chief Executive of the National Electricity Regulatory Commission (NERC) who gave the keynote address.

OBSERVATIONS

At the roundtable, the following observations were made:

1. Power generation started in Nigeria in 1896, with the first electricity project and power generation plant being in Ijora, Lagos.
2. NEPA, a statutory body had monopoly over electricity generation, transmission, distribution and sales.

3 Neglect and inadequate investment resulted in dilapidated power system with high technical and non- technical losses.

4 There was Poor maintenance of power generation, transmission and distribution facilities.

5 There has been Inadequate metering capacity and planning for capacity expansion of infrastructure.

6 The gas sector holds significant potential, with Nigeria having the 7th largest gas reserves in the world.

7 Following several years of low domestic gas utilization, the sector is now confronted with a huge potential for unprecedented growth from about 5bcf/d currently to over 20bcf/d by 2011/15.

8 At present, there is no single coal-fired-power plant operating in Nigeria despite the abundance of high quality of coal deposits, and yet its exploitation is at its lowest ebb.

9 There are 11 significant known coal deposits in Nigeria with total proven reserve of over396 million tones and 1,091 million non- reportable reserve.

10 Nigeria's goal is to revitalize the coal mining industry and expand power generation by attracting companies to develop these large coal resources and construct coal-fired generating plants that will connect the country's national grid.

11 Federal Government of Nigeria has initiated the construction of 3 coal power plants at Enugu, Gombe and Kogi, with preliminary designs being in progress.

12 NERC has developed coal-to-power special tariffs to encourage private investment in clean coal technology power generation.

13 Federal Government of Nigeria has initiated the Coal-to Power projects with at least 3 Government owned proposed power stations.

14 Only about 40% of the country's population (of about 160 million) has access to electricity, with a total consumer figure of about 4.5 million.

15 Some of the problems associated with metering in the NESI include; by- pass of meters and inadequate funding.

16 The Electric Power Sector Reform (ESPR) Act passed in March 2005, led to the enactment establishing PHCN, 6 GenCo, 11DisCos and the TCN, NERC, and REA.

17 The Federal Ministry of Finance, in addition to the World Bank partial risk guarantee, is reviewing a set of other options through which the Federal Government may provide credit enhancement to the bulk purchaser that will enter into a PPA with the successor generation companies and IPPs.

18 Lack of vision, failure of strategic planning, perverse political incentive and weak commitment to development are key players in infrastructure deficit.

19 Electricity Corporation of Nigeria (ECN) was established as a central body responsible for electricity supply in 1951.

20 Niger Dams Authority (NDA) was established in 1962 with a mandate to develop hydro power stations. ECN and NDA were merged in 1972 to form the Nigeria Electric Power Authority (NEPA) by virtue of the NEPA Act.

21 NEPA had monopoly of generation, transmission and distribution until 2005 when EPSR Act repealed the NEPA Act and PHCN was formed from NEPA to serve as a transitory holding company prior to the unbundling of the Sector.

22 The Act further provided for the creation of Successor Companies (SCs) from PHCN and 18 SCs comprising eleven distribution Companies, six generation Companies and one transmission Company has since been created.

23 The Nigerian Electric Power Policy (NEPP) was adopted in 2002 in response to the dire shortage of electric power and the need for urgent reform of the sector.

24 EPSR Act provides for two stages of market development viz: pre-privatisation stage and post privatisation stage. Pre-Privatization also known as transition period.

25 The pre- transition stage involved restructuring, review of regulatory framework and creation of a sector regulator.

26 The role of NERC is to provide a formal independent regulatory framework for the electricity industry, ensure sustainable growth, development and stability of the sector, boost investor confidence/ protecting the interests of consumers, promote competition within the industry, set and enforce quality standards, enforce consumer service obligations, and provide all necessary regulatory functions for the electricity industry.

27 NERC also Licenses and regulates persons engaged in the generation, transmission, system operation, distribution, and trading of electricity, monitor the operation of the NESI, set up and administer the PCAF as specified by the Minister, supports the preparation of the RE Strategy and Plan, issues the licenses for rural electrification, regulates the rural systems, determines the contribution rates to be sent to the Rural Electrification Fund.

28 The Commission is also empowered to develop and approve the operating Codes required for safe, secure and reliable operation of the electricity industry throughout the country.

29 Pursuant to Section 76 of the Act, the Commission established a methodology for regulating electricity prices - the Multi-Year Tariff Order (MYTO), which provides a 15 year tariff path for the Nigerian electricity industry with limited minor reviews each year in the light of changes in a limited number of parameters (such as inflation and gas prices) and major reviews every 5 years, when all of the inputs are reviewed with stakeholders.

30 NERC has also developed the Market Rules which define the Market organisation and trading arrangements for the NESI.

31 While most countries aim to produce power (MW) in excess of exact requirement as guarantee of ready availability, Nigeria hardly produced up to 25% of its power (MW) need.

32 Radical action need to be taken urgently to achieve acceptable level of power supply to majority of people and services.

33 Pre- 1999, available power (MW) was at abysmally low level (1500- 2000 MW) out of 6000 mw, and supply was grossly inadequate and epileptic.

34 From 1999-2005, there was marked improvement from 2000mw to 4500mw out of 6500mw.

35 From 2006 – 2007, there was scandalous drop in power generation to below 2000mw despite additional generation from newly commissioned power stations.

36 From 2007-2011, power generation within this period fluctuated between 2000-3500mw with additional generation from a few newly commissioned plants.

37 In 2012, power generation stood at 3000-4000mw but supply remained generally very erratic and unsatisfactory following faults and deficiencies caused by drop in power generation and transmission network.

38 Extensive construction work is going on to complete and commission about 10 new gas propelled power plants in the Niger- Delta region which is expected to generate about 5000mw and matching load evacuation facility.

39 The power supply industry in Nigeria has been in comatose for a long time due to lack of depth in our appreciation of its indispensable and capital intensive nature, insincere advice and management.

40 Low level of power generation (MW) had been as a result of inadequate/ lack of maintenance of facilities, spare parts and tight power generation.

41 Low level and poor management of water in hydro dams and shortfall in gas supply to thermal power stations is a problem in power generation.

42 Government embarked on building of new power plants while abandoning maintenance of existing plants.

43 Power plants are concentrated in a limited area, thereby weakening grid security.

44 The problem faced at the transmission end is that the transmission grid is weak and not dully maintained.

45 Some major circuits are single (double circuit is the standard).

46 Execution of on-going projects on the grid and fortification of existing ones are not vigorously pursued by the contractors and supervision of same is not diligent e.g one grid system for an expansive country like Nigeria.

47 At the distribution end, power distribution network has not been expanded to all parts of the country, with a good part of the rural areas being without electricity.

48 Some distribution lines and facilities are old and weak.

49 The Energy billing system in the country is inefficient.

50 Power distribution has been bedeviled by unwholesome practices by staff and the public.

51 Power consumers are dissatisfied with the PHCN services following poor performance.

52 The 11 unbundled distribution companies are not properly coordinated and supervised which affects plant maintenance due to low cash collection.

53 Disturbance inflicted on distribution network through vandalism is a cause for concern.

54 Nigeria has a population of about 160 million, with capital investment in infrastructure requirement of US$14.2 billion per year over the next decade or about 12% of GDP.

55 The Federal Government spends only US$6 billion per year on infrastructure, or 5% of GDP, one of the lowest in SSA countries.

56 Nigeria's power sector currently has less than 8,000 MW of installed capacity, and less than 6,000 MW of available capacity, with only about 4,000 MW of regular power going through the grid.

57 Various estimates show that Nigeria needs about 20,000-40,000 MW over the next decade.

58 Current levels of consumption is less than 150kWh per person per year; one of the lowest in the world.

59 With electricity accessibility of about 33% (5 million connected customers), those connected to the grid self- generate about 66% of their needs from about 6,000 MW of high cost auto- generators.

60 Developing countries like Nigeria cannot continue to rely on global, multinational and bilateral institutions to finance their power infrastructure.

61 Lack of and inefficient power now cost Nigeria 3% GDP growth per annum.

62 Regional supply can serve to reduce capital cost and delivered cost of power.

63 The on- going reform in the Nigerian power sector is being designed to attract major private sector investments.

64 While acquisition costs for the PHCN companies maybe equity based, investors will require access to long term financing.

65 Long term financing for international mark is increasingly difficult as the current available instruments are short-term loans from commercial banks and limited equity from immature capital market.

66 The available fund which lack appropriate instruments are pension fund, insurance funds, capital market, and long term bond market.

67 Impediments in the domestic market include dearth of long term financing instruments, lack of appropriate financial regulatory framework, lack of credit enhancement instruments, inadequate LT Bond Issuance by Federal Government, and absence of well developed credit rating agency.

68 Nigeria's equity market is limited to the relatively small size.

69 The on-going financial crisis in the developed world is further reducing the appetite for risks.

70 New BASEL III regulations will make it more expensive to raise long-term commercial debt for infrastructure projects in international markets.

71 No sector requires more investment in Nigeria like the electric power sector as the demand for power far outstrips the supply.

72 Electricity Generation is by a mix of Government and private sector players PHCN SCs, NDPHC (NIPP), States (RSG & AkSG), IPPs (AES, AGIP, and Shell).

73 As at February 2012, total grid connected installed (name plate) capacity from these sources was about 10,897MW but the available capacity (ability to generate power) is about 6020 for a population of over 150 million people. Even at this availability there is still no power for lack of gas.

74 Self-generation of electricity from off-grid diesel Gens was estimated in the Roadmap to be a minimum of 6,000 MW in 2010.

75 The problem is not only with generation but also with transmission and distribution.

76 Clearly, huge investment is required in all the critical areas of the value chain.

77 Roadmap estimates based on comparison with equivalent per-capita demand in South Africa show that electricity demand in Nigeria warrants a generating capacity of 40,000 MW by 2020.

78 FGN states in NEPP (Para 1.4, p.3) that the "*power sector is very capital intensive. It is obvious that Government, with its many responsibilities in other sectors of the economy, cannot fund its development ... There is therefore the need to reform the sector so as to: (1)* ***attract and encourage private sector participation.***

79 A private sector entity ("PSE") can be engaged by an MDA to provide specific tasks in an infrastructure facility that would have been provided by the MDA.

80 The aim is usually for operational cost reduction. PSE brings the benefit of private sector expertise for technical tasks.

81 The contract is usually for a short duration of about three years or below.

82 May bring very useful technical expertise for service delivery in the NESI, but may not directly provide the needed financing as it does not require the PSE to assume any construction, financing or investment risk. The MDA pays a fee to the PSE.

83 No institutional or corporate restructuring required. Usually no transfer of asset.

84 A PSE can be engaged for the operation and maintenance activities of an infrastructure facility.

85 PSE will have the freedom to make the day-to-day management decisions.

86 The aim is to improve the management and operation of the facility

87 The duration is usually about five years because the improvement takes time to implement and achieve.

88 No construction, maintenance and development risk is borne by the PSE. The PSE may provide working capital but not financing of capital investments.

89 PSE receives compensation which may be linked to performance, or may be on the basis of a fixed fee.

90 This structure is mostly useful where there is a need to rapidly enhance a utility's technical capacity and efficiency in performing specific tasks or to prepare for greater PSE involvement.

91 In the power sector, BPE is presently procuring a management contractor for TCN.

92 Private participation in public enterprises involves private investment in the capital of a public enterprise run as a commercial enterprise.

93 This could be by partial divesture of Government from the PE or by PE's ability to issue bonds or other securities.

94 The partial divestiture strategy is presently being adopted by the NCP and BPE to unlock private sector funding for the eleven Distribution successor companies of PHCN and some gas thermal generation companies.

95 In the power sector, the BOO structure was effectively used to provide investment in electricity generation between 1998 and 2005 prior to the de-monopolisation and liberalisation of electricity generation and distribution in Nigeria by the EPSR 2005

96 The existing legal framework for PPP in the Power sector at the federal level include the following: EPSR Act, Privatisation and public procurement laws include: ICRC Act, *Public Enterprise (Privatisation and Commercialisation) Act, 1999* ("the Privatisation Act"), Public Procurement Act 2007, PPP and public financial management laws include: Fiscal Responsibility Act, Debt Management Office Act, National Planning Commission Act.

97 Incentives for gas thermal generation include:Company Income Tax Act (Section 29), Industrial Development (Income Tax Relief) Act, *Finance (Miscellaneous Taxation Provision) Act No. 18, 1998*, Value Added Tax Act , Customs, Excise Tariff, Etc (Consolidation) (Amendment) Act

98 Investment Protection Laws include: Constitution of the Federal Republic of Nigeria 1999 (as amended) (section 44), Nigerian Investment Promotion Commission Act, Foreign Exchange (Monitoring and Miscellaneous Provision) Act

99 The EPSR Act is the principal legislation that governs the electric power sector in Nigeria.

100 Major provisions which may be relevant to PPP in electric power include:
the repeal of the NEPA Act and the Electricity Act, and the de-monopolisation of the electric power sector in Nigeria. This makes it possible for the private sector to participate in any part of the value chain either directly or indirectly through appropriate PPP forms.

101 PPP, Privatisation and Public Procurement Laws are ICRC Act*, Public Enterprise (Privatisation and Commercialisation) Act, 1999* ("the Privatisation Act") and Public Procurement Act 2007.

102 Part II of the ICRC Act establishes ICRC with a mandate to take custody of every concession agreement or contract entered into by the MDAs, and monitor compliance with the ICRC Act and the efficient execution of any such agreements.

103 ICRC has no pre-contract role except to publish the list of projects eligible for concession.

104 The Act does not specify any process for preparing or analysing projects or for deciding on priority projects as mentioned in Section 2

105 The Act makes no reference to how it would interact with other existing Acts like the Privatisation Act. It is not clear whether the ICRC Act seeks to provide a separate legal regime for temporary transfer (concession, lease, etc.) of activities of a public agency with respect to public infrastructures whilst the Privatisation Act would be limited to permanent transfer of ownership of assets or shares of public enterprises.

106 The Act does not make any provisions for PPP units. However ***National Policy on Public Private Partnerships (PPP)*** 2009 recognizes the need for a central PPP unit and states Government *proposal* to create a PPP Resource Centre within the ICRC to "play an important part in the institutional framework that the Government is creating to support its PPP policy."

107 The ICRC Act seeks to provide a legal framework for PPPs but is full of inconsistencies and conflicts leaving an impression that it was made without any clear understanding of the purposes for which the law is required and the context in which the law will exist.

108 There was no policy, prior to the enactment of the Act in 2005, to clarify the rationale for and the circumstances in which the granting of a concession or a PPP would be adopted.

109 Happily, the ***National Policy on PPP*** appears to state FGN's commitment to review the legal and regulatory framework created under the ICRC Act and other existing laws

110 The on-going privatisation of the PHCN successor companies involves some PPP forms like Concession for the Hydro electric power companies and partial divestiture of the successor distribution companies. TCN is being privatised through management contracts

111 The Privatisation Act gives NCP powers to privatize enterprises listed therein, with further powers to add more enterprises to the list. Section 24 of the EPSR Act gives NCP express powers to privatize the Successor Electric Power Companies by whatever mode it deems fit.

112 The ICRC gives MDAs the powers to grant concessions or enter into contracts with respect to infrastructure projects which include electric power projects

113 The powers vested in MDAs under the ICRC Act are without reference to the NCP and without regard to the Privatisation Act which was an existing law at the time the ICRC Act was passed.

114 The ICRC Act clearly creates a conflict with privatisation Act and EPSR Act especially in terms of role overlap between NCP and the MDAs as well as the ICRC which may affect investors' confidence.

115 The Public Procurement Act applies to all procurement of goods, works and services and disposal of assets by FGN and all procuring entities (which also are disposing entities) under the Act.

116 The focus of the Procurement Act is the traditional public procurement of goods, works and services and there is no express reference to infrastructure procurement or public private partnership in the Act. However, procurement of "goods", "works" and "services" for infrastructure projects (including electric power) and the procurement of infrastructure facilities or infrastructure services, the disposal of infrastructure that is "public property" are also covered by the Act, to the extent that they are not exempted or relieved by or under powers granted in the Act, or where otherwise subject to specific legislation.

117 The following public financial management laws are critical to PPP development:

a. Fiscal Responsibility Act,
b. Debt management Office Act,
c. National Planning Commission Act

118 The main focus of the Fiscal Responsibility Act is the Medium Term Economic Framework which is to be prepared by the Minister of Finance for approval of the Federal Executive Council and the National Assembly.

119 To the extent that PPP can lead to the incurring of external and domestic debt obligations by FGN or its agencies (or State Governments and their agencies) DMO's role of preparing and implementing a plan for the efficient management of these debt obligations is relevant.

120 One of the functions of DMO is set out in Section 6(1) as *to prepare a schedule of any other Federal Government obligations such as* trade debts and other *contingent liabilities, both explicit and implicit, and provide advice on policies and procedures for their management, a*s PPP projects can involve contingent liabilities for FGN.

121 The arrangements for PPP especially in electric power projects involve several legal and economic issues requiring detailed preparation. It is not enough to simply develop a detailed PPP programme.

RECOMMENDATIONS

The following recommendations were consequently made at the roundtable:

1 There is the need to Re- strengthen the Transmission Grid by Expansion and rehabilitation

2 Tariffs structure should be developed for compensating Ancillary Services.

3 A review of tariff regime should be done to introduce cost- reflective ceiling on end –user tariffs which will replace the national uniform tariff. The NERC has embarked on a major tariff review to address same.

4 There should be protection against "rate shock" and provision of "lifeline" tariff for indigent consumers. A power Consumer Assistance Fund is being established by NERC to support same.

5 Federal Government should focus its development efforts on power generation through hydro, coal and natural gas in view of the high capital cost and long lead times required to develop commercial power generation through solar, wind, nuclear and biomass.

6 The National Power Training Institute of Nigeria (NAPTIN) should be made a fully operational.

7 Completion of all ongoing Power Stations, Transmission Lines & Sub- Stations, and Distribution Lines & Sub- Stations will increase the viability of the utilities and enhance capacity of power production and delivery.

8 There should be a paradigm shift from transferring all the risk to the private sector, to a risk sharing regime where both the government and the private sector will participate in power generation.

9 Electricity power reform must necessarily involve:

a. Effective and independent regulation.
b. Cost effective tariff to balance input/output ratio
c. Prudent and cost efficient investment
d. Effective and efficient project management.
e. Effective public participation

f. Consistent policy making
g. Honest leadership

10. Preventive routine and scheduled maintenance should be drawn up and reasonably implemented instead of embarking on breakdown of maintenance of facilities.
11. There is a need to diversify our sources of power supply and distribute/ stagger the location of power plants round the country to avoid possibility of system collapse which could happen if there is complete dependence on gas.
12. In-house rehabilitation of plants should be encouraged/quickly embarked upon.
13. Sufficient fund should be appropriated and very importantly, fully released for maintenance of existing power generation mix.
14. Contractors executing transmission line projects should be mobilized and monitored to complete and commission projects within planned time-lines.
15. Multi-grid system is recommended for the country in order to achieve good voltage, security and stability.
16. For a strong and modern grid to be built and maintained, adequate fund should be provided. For contemplated super grid 700kv, necessary out feeders for such voltage should be correspondingly strengthened.
17. Local monitoring of the transmission lines/ network and gas pipelines should be joint responsibility of the Transmission Company of Nigeria and local community leaders.
18. Distribution network and facilities should be extended to most parts of the country to stem urban drift and provide basis for industries at all scales to be established.
19. Energy billing system (through pre-paid metering) should be installed in the premises of all consumers of electricity.
20. An expert management team should be appointed to coordinate and supervise the unbundled PHCN companies.
21. Some short term solutions that were recommended include the following:
    a. To allocate load (MW) upon assessment of water levels in the hydro power plants and status of turbine and auxiliary units in all power stations.
    b. Need to draw up and maintain annual maintenance schedule for all power stations.
    c. Restoration of reactors on long transmission lines to improve voltage and enhance grid security.
    d. Improvement of power distribution network-reticulation, feeder-pillars, distribution transformers, etc by installing new ones and repairing faulty ones.
    e. Each distribution zone to adhere strictly to load (MW) allocated to it for fair and equitable sharing of available power to all consumers.
    f. Sensitization of the public to always switch off power from areas not immediately required.

g. Blockage of all loopholes against power theft and deliberate leakages by public and staff of PHCN.

22. Medium term measures include:
    a. The need to carryout overhaul of all plant units due for such maintenance.
    b. Commencement of feasibility study/survey on construction of other modes of power generation.
    c. Aggressive pursuit and completion of on-going rural electrification projects.
    d. Ensure credible and acceptable power consumption billing system is put in place.
    e. Commencement of privatization of the distribution companies.
23. Long term measures include:
    a. Build new power plants, especially based on generation-mix of coal, oil, hydro, solar, wind, biomass and nuclear.
    b. Begin the construction of gas grid round the country.
    c. Break grids into zone when more/ staggered power plants come on board.
    d. Build more high voltage transmission lines to wheel all loads available at good voltage to consumers.
24. Activities in the short-term, Medium- term and Long- term improvement programmme can overlap on another by simultaneous execution.
25. Need for good funding and accountable management.
26. Every fund which government appropriates to the power sector should be timely and fully released.
27. Power generation can be joint responsibility of government and the private sector.
28. Transmission of power should be sole responsibility of government.
29. Power distribution and sale should be fully divested by privatization.
30. New and replacement generation capacity will need to be financed by both domestic and international financial markets.
31. Need to choose technologies that are proven, reliable and that will be cost effective.
32. Need for short bridge financing of up to seven years.
33. Need for long term financing of 7 years and above.
34. Create regulatory base for LT investment in infrastructure.
35. Diversify from predominance on treasury notes, short- term bank deposits and real estate.
36. Pension Fund Investment s should:
    a. Assume the role of senior lenders on infrastructure projects.
    b. Invest in infrastructure bonds that are 100% guaranteed by insurance policies.
    c. Invest in dedicated infrastructure related Corporate Bonds which are credit rated.
    d. Invest in Pan- African Fund, emerging market fund, and Guarantee Companies

37. Insurance companies asset should be invested in PPP/ted infrastructure projects.
38. Secondary markets should be developed to improve market liquidity.
39. Commercial banks should give longer tenure loans.
40. Single buyer lending limit should be increased to 25% minimum.
41. Appropriate steps should be taken to widen access to the stock market funding for infrastructure.
42. Infrastructural Funds should be engaged for the Nigerian Power Sector transactions.
43. Establishment of the Nigerian Infrastructure Investment Fund should be fast tracked.
44. Exploring structures that will allow lenders to access local pension funds through various 'take-out' structures.
45. A robust legal and regulatory framework must also be in place to support the programme and also to address any inadequacy in the broad legal environment especially by modifying the market structure and the rules of competition, where necessary.

Signed

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