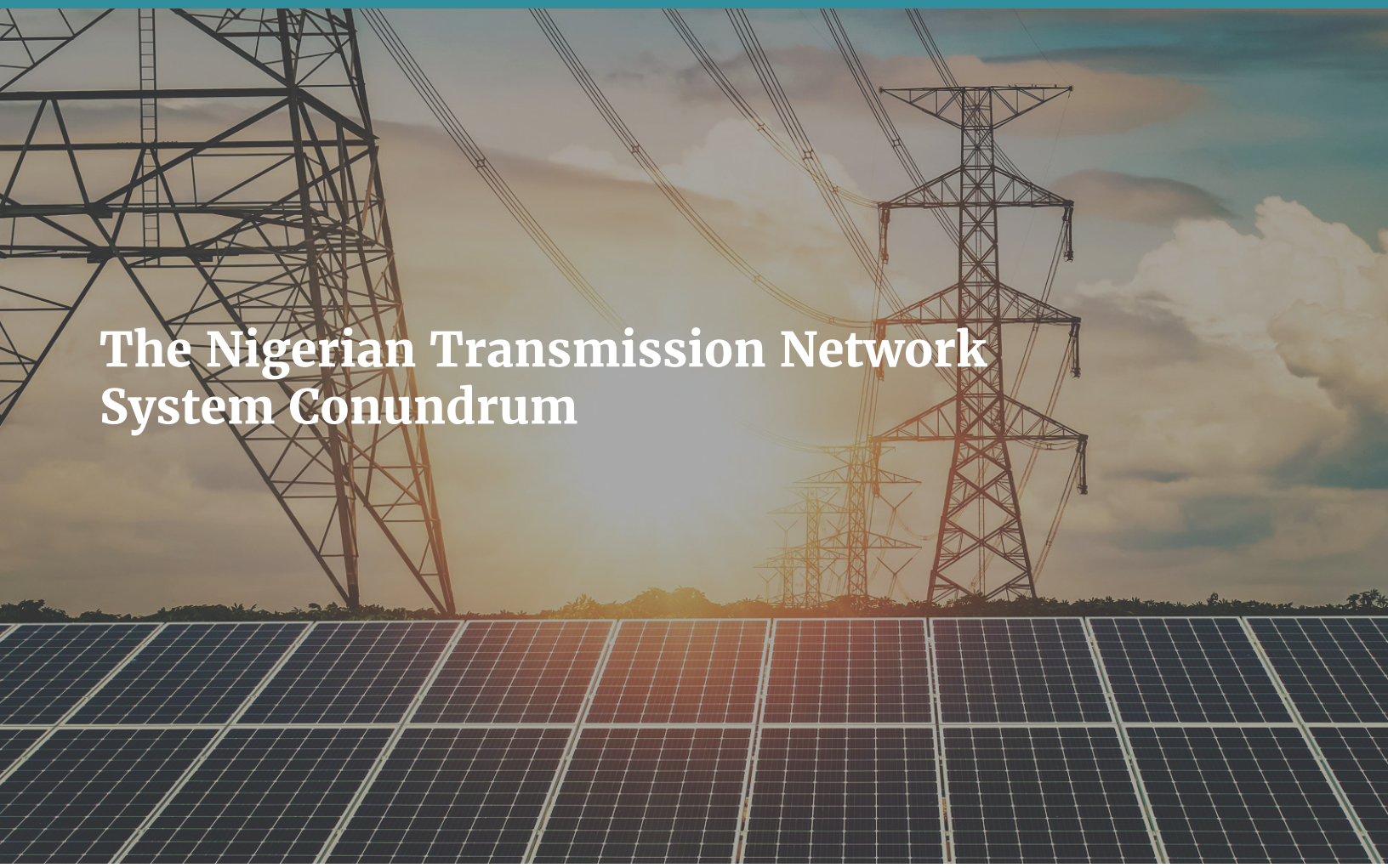

The Nigerian Transmission Network System Conundrum

Introduction:

The level of the energy demand and utilization in a country's economy, is largely indicative of its degree of economic development. It also gives a sense of its economic growth trajectory. To accelerate economic growth and development in the face of very poor grid power supply, the Federal Government of Nigeria ("FGN") concluded it was pertinent to substantially privatize the Nigerian electricity supply industry.

Thus, the partial (but substantial) privatization of the Nigerian electric power sector forged ahead with the signing of the Share Sale and Purchase Agreements ("SSPA") and the Concession Agreements ("CA"). Apart from the SSPA and the CA, other relevant transaction and industry documentation, for 15 out of the 18 companies hived off the Power Holding Company of Nigeria ("PHCN") were signed at the Presidential Villa, Federal Capital Territory, Abuja, Nigeria, on Thursday 21st of February, 2013. By November 2013, the companies were handed over to the new owners/ core investors and concessionaires.

The ownership of the transmission company, that is, the Transmission Company of Nigeria ("TCN") was not handed over to the private sector. Rather, a Canadian Firm, Manitoba Hydro International ("Manitoba Hydro"), entered into a three (3) year management contract with the FGN to overhaul the transmission network. The management contractor, Manitoba Hydro, was expected to work towards the overall improvement of the Nigerian transmission infrastructure as much as possible.

Post-privatization, some of the expected roles of the FGN included providing an enabling environment, supporting the Manitoba Hydro in improving the national grid and generally working with multilateral lending agencies to raise funds for the improvement of the infrastructural backbone for the power sector in Nigeria.

The teeming populace also expected that post Manitoba Hydro's Management Contract, the government would, like the private sector, be more responsive when there is any damage or problem along the transmission network. There were, clearly, improved efforts and an example, in case, was the scenario where four (4) transmission towers were destroyed on April 18, 2014 as a result of heavy rain at Corner Mariga after Tegina, Niger State, Nigeria; causing power outage in the area.

The FGN owned TCN sprang into action (on the same day) and began to construct a transmission bye-pass to temporarily replace the destroyed 132kV transmission line from Tegina to Kontangora, Niger State. The TCN engineers isolated the defective axis of the 132kV transmission line from Tegina to Kotangora and re-energized the line from Shiroro to Tegina.

The TCN Manitoba Management Contract:

That said, the management contract signed by Manitoba Hydro was performance based with emphasis on the service outcomes expected from Manitoba Hydro as management contractor. The expectations included the introduction of international best practices, improvement of the efficiency and reliability of the transmission network with the incessant grid failures.

It was also expected that the experience of the management contractor in the development of the electric power sector in Canada will engender improved network capacity and service delivery by the TCN. Attached to the expectations, were incentives and punitive measures.

The management contract was designed for a five (5) year period divided into two (2) terms of an initial three (3) year period and another two (2) year period if extended. Although, the management contract was signed in the year 2012, it appears the necessary authorities (for proper implementation) was not received until March 2013. Upon receiving same, Manitoba Hydro, assumed management and operational control for TCN's operations, which included system and market operations. The management contract was, however, terminated in the year 2016, having operated in less than ideal circumstances.

Specifically, there were consistent reports of hostility to the management contractor from staff and management of the TCN; thereby making it difficult for set targets to be met, in spite of the best efforts of Manitoba Hydro. The problems with the transmission network have continued with the system remaining old, unreliable and unstable. There have, thus, been incessant partial and full system collapses due to inadequate redundancy within the transmission network. This insufficiency of redundancy of the transmission network has led to instability along the transmission network and ensured that industrialization is unachievable as industrialization requires substantial power supply, especially through the grid and not off-grid systems.

The Way Forward:

To be honest, the solutions are not anywhere near rocket science and start with the much-needed network expansion to accommodate increasing electric power generation in the country. It had always been germane to ring-fence and unbundle the key functions of the TCN; i.e., market operations, system operations and transmission service provision with ultimately having only the transmission service provision remaining with the TCN.

Consequent upon the foregoing, it would be pertinent to create an Independent System Operator ("ISO"), such that those market and operations functions are hived off the TCN and vested in a separate company- the ISO, which will be an independent company licensed to perform those functions. The foregoing, should drive more efficiency and reliability.

To achieve the requisite expansion, substantial funding and technical cum managerial expertise are of utmost importance. The foregoing will assist in achieving the capacity recovery and expansion targets to accommodate increasing generation capacity; especially with the volume of redundant capacity because of gas and transmission challenges, which can then be brought on-stream.

The implementation of a Public Private Partnership in form of a Build Operate Own and Transfer deal which had been used in parts of South America and Asia, may also be considered in this regard as a full privatization of the transmission network is unlikely to be feasible and or viable.

Conclusion:

Research has shown that there is a strong correlation between economic growth and availability of affordable electric power. With Nigeria recently regarded as having the highest number of extremely poor people in the world together with the very poor availability of electric power, things may not improve substantially unless urgent steps are taken.

Also, except the steps being taken by the current administration continue and are expanded to address issues related to transmission, no substantial improvement will be experienced, as mini-grid and off-grid solutions, alone, are not a sustainable solution to the challenges currently being faced in the electric power sector. The importance of improved power supply is, in the fact, that power availability is inextricably linked to the overall level of poverty in every country. For industrialization and other productive activities to thrive, there is need to improve the transmission grid.

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