

Understanding Nigeria's Presidential Power Initiative (PPI)

The Presidential Power Initiative (PPI) is a strategic and systematic approach to solving Nigeria's perennial problems of unreliable and inadequate electricity supply. Even with an installed power generation capacity of ~14GW, there's a less than 5GW of operational capacity in the nation's grid, thereby putting the majority of the 200m population at the mercy of more expensive and polluting alternative generation sources.

Nigeria, Africa's largest economy and most populous nation, has seen its economic growth stunted by the lack of reliable and quality electricity supply. World Bank's Africa's Infrastructure Diagnostics and McKinsey report estimated annual losses due to power supply challenges at 4-7% of GDP, or around US\$29bn. The challenges to the power sector include high operational and commercial losses of above 50%, as well as low billing and collections of distributed power by the Discos, leading to financial problems for the entire value chain. Aside from economic losses, the government subsidizes market shortfalls to the tune of US\$1bn annually from the meagre public finance.

The visit of German Chancellor, Angela Merkel to Nigeria's President Muhammadu Buhari on August 31, 2018 provided the platform for what is now known as the Presidential Power Initiative. On Chancellor Merkel's entourage was the then President/CEO of Siemens AG, Mr. Joe Kaeser. At the business roundtable inside the Presidential Villa, Joe Kaeser gave a brief insight on Siemens' deep technical experience in helping Nigeria solve the power sector challenges. The Egypt Mega-Project was a good reference – where Siemens had just completed a 14.4GW Power project fully synchronized to the grid in a record time of 27 months. President Buhari immediately directed the Chief of Staff, late Mallam Abba Kyari to coordinate with Siemens to find sustainable solutions to the power sector challenges. And so began a challenging but fulfilling journey of finding the right solutions and structure to tackling the problems.

After series of workshops, meetings, assessments, reviews, discussions and evaluation, an Implementation Agreement was signed for the Nigeria Electrification Project, now named the Presidential Power Initiative, between the Federal Government of Nigeria represented by the Bureau of Public Enterprises and Siemens AG on July 19, 2019. The PPI is structured in 3 Phases – (i) quick fixes in the transmission and distribution grid network to increase operational capacity from 5GW to 7GW; (ii) additional upgrade of the grid from 7GW to 11GW; and (iii) upgrade of the grid from 11GW to 25GW including building power generation plants.

Phase 1 of the project is to begin with pre-engineering works, the contract for which has recently been signed by Siemens AG and the FGN Power Co (the special purpose vehicle of Nigerian Government for the implementation of the PPI). Following the spin-off of the Energy Business of Siemens AG and subsequent listing of Siemens Energy, the execution of the PPI is now between two (2) separate entities of Siemens AG – Siemens AG Smart Infrastructure and Siemens Energy. Siemens Energy is responsible for the execution of all Transmission Systems Projects and supply of products/equipment in the PPI. For the pre-engineering works, the contract allows Siemens AG to novate relevant parts of the projects to Siemens Energy for seamless execution. Therefore, the overall objectives of the PPI and the successful implementation of the project remain unaffected by the Siemens AG Group spin-off.

Under the pre-engineering works, Siemens Energy will carry out engineering designs of all Transmission Substations to be upgraded and constructed, mobile substations, and transformers to be installed and/or

supplied. This will also include lightning and earthing studies and training on digital transmission technology. There are other activities for the Distribution Systems and Network Development to be carried out as well. The pre-engineering activities will enable Siemens Energy and Siemens AG to firm up the technical and commercial scope of works for Phase 1. To ensure successful implementation of the PPI, the Federal government set up FGN Power Company as a new and independent entity. The governance structure of the company includes a Board that is chaired by the Minister of Finance, Budget, and National Planning, and includes the Ministers of Power, Works & Housing, and Justice. The Director General of the Bureau of Public Enterprises and the President of the Nigerian Society of Engineers are equally members. In addition, the President established the PPI Implementation Committee chaired by the Chief of Staff to the President. The Committee has representatives of critical power sector stakeholders as members.

Siemens Energy's expert knowledge, a 50 year history in Nigeria – including landmark projects such as the Geregu 1 & 2 Power Plants and more recently the Azura Power Plant - as well as a strong presence in the Oil and Gas sector, assures our credibility. The pre-engineering works signal the beginning of important steps by the Nigerian government in resolving the power sector issues, the journey can only get better with a trusted and competent partner such as Siemens Energy.

Oladayo Orolu FCA

Head Business Development and Government Relations, Siemens Energy Nigeria.