

# Nigeria's Electricity Supply Industry Highlights

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It is almost impossible to discuss the growth potential of the Nigerian economy without recourse to the challenges in the power sector. Consequently, there have been concerted efforts by Government and other stakeholders in the sector to address these challenges and get the sector performing at its optimal potential.

This newsletter highlights some of the activities of these stakeholders and their impact on the industry.

## Implementation of the National Content Development Regulations

There have been discussions, since privatization, on whether there is a need to replicate the Nigerian Content policy in the oil and gas industry for the electricity sector. In December 2014, the Nigerian Electricity Regulatory Commission (NERC) issued its "*Regulations on National Content Development for the Power Sector, 2014*"; aimed at promoting the deliberate utilization of Nigerian human and material resources, goods, works and services in the Nigerian electricity industry. However, the Regulations were not implemented until January 2019.

The commencement of implementation of the Regulations was made public at a two-day workshop on the Minimum Specification of Nigerian Content and Requirement for Labour in the Power Sector, which was organized by the NERC in January 2019. The Minister of Power, Works and Housing, Mr. Babatunde Raji Fashola, highlighted the necessity for Nigeria to develop local capacity in the power sector in order to minimize its dependence on foreign equipment and service. He also stated that the Regulations were in line with the Federal Government's Executive Order 005, 2018 which was issued to promote the use of Nigerian content in contracts and services in the country's engineering and science sectors.

The Regulations specify, in its Schedules, the expectations of the Commission with respect to the minimum requirement of Nigerian content in the various sub-sectors: Generation, Transmission and Distribution. Some of the expectations in the Schedules are highlighted below:

- i. Generating Companies (Gencos) must engage manpower that is sourced 100% locally in the construction of foundations for power generation turbines, transformer plinths, control rooms and cable trenches as well as other civil works for power plants.

- ii. A percentage of transmission equipment, such as switchgears and sub-station equipment used in the transmission of electricity, must be sourced locally from 2020. This percentage has been set at 10%, but expected to increase to 20% from 2024 onwards.
- iii. NERC expects 25% of transformers used for the distribution of electricity to be locally sourced from 2019. This percentage is expected to increase to 75% from 2024 onwards.

Operators in the sector must comply with the provisions or risk regulatory sanctions. The release of the Regulations is laudable, however, achieving the set targets may remain a challenge as is the case with the 3-year metering target defined in the Meter Asset Provider (MAP) Regulations, 2018. NERC must, therefore, recognize that challenges, such as gaps in human capacity and technical expertise, may be encountered by operators in achieving the specified targets. It is, therefore, important that it works with stakeholders in the sector to draw up a plan to address these challenges.

## The Rural Electrification Agency's Mini-Grid Acceleration Scheme

The electricity supply industry in Nigeria is characterized by inadequate production, transmission and distribution of electricity for the Country's population, which continues to rise. The current electricity access rate in Nigeria is 45%, while there are about 20million households without power in the Country.

In order to continue to close this gap and provide access to electricity, the Rural Electrification Agency (REA) has been promoting the development of mini-grids by communities and private enterprises through its Mini-Grid Acceleration Scheme (MAS). The REA is working with the European Union (EU) and German Government under the Nigerian Energy Support Programme (NESP) – a programme implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) – to speed up deployment of off grid electricity using the mini grid model<sup>4</sup>. The objective of the Scheme is to provide 21,000 customers with access to reliable electricity at an affordable tariff through the support of privately-led off-grid solar mini-grid projects. The Scheme aims to achieve this by providing beneficiaries of the scheme i.e. mini-grid project developers, with grants totaling €6 million as well as technical assistance in the form of transaction, finance, engineering and legal advisory services.

In January 2019, the REA organized a Mini-Grid Acceleration Scheme Stakeholders' Workshop designed to sensitize eligible beneficiaries, project developers and other stakeholders on the nature of the MAS. The Workshop was organized as a precursor to the Call for Submission of Proposals for isolated mini-grid projects, which commenced in February 2019.

This commendable Scheme is one of a number of projects being championed by the REA, as it continues to be in the forefront of increasing electricity access to rural and underserved clusters.

### Launch of an EU-funded €30M Sustainable Energy Investment Fund in Nigeria

Two key challenges in Nigeria's electricity sector, especially since privatization, has been that of funding and inadequate cash flows.

However, in a recent development, the funding of sustainable energy development in Nigeria is set to be boosted by the launch of the 30 Million Euro EU-funded multi-donor Electrification Financing Initiatives Nigeria Window. The Fund, which will provide up to 30 million Euros in investments for off-grid and commercial and industrial captive power projects, was launched at the Nigeria Energy Forum (NEF) held in April 2019.

This Fund is one of the initiatives by International Developmental Agencies that are focused on improving the power situation in Nigeria and across Africa. It is therefore hoped that this initiative will improve access to funding for the sector in Nigeria and as a result, lead to greater access to electricity in the country.

### Exploring Electricity Cooperative Business Models in Nigeria

The electricity sector in Nigeria has continued to see a shift from the traditional electricity supply value chain – electricity supply from Gencos to the Nigerian Bulk Electricity Trader or Discos via the Transmission Company of Nigeria (TCN) – to alternative structures, mainly mini-grids operations and home solutions that are mostly powered by renewable sources.

The African Development Bank (AfDB) is currently exploring another model of electricity supply across the country. The Bank recently kicked off a feasibility study to explore the potential of electricity cooperative business models in Nigeria and Ethiopia. The effort is part of the Bank's goal of achieving universal electricity access across Africa by 2025.

An electricity cooperative is a not-for-profit business voluntarily owned and controlled by the people who benefit from the services. Electricity cooperatives are typically tax-exempt businesses and are deployed to provide last mile connections to rural areas in order to improve rural electrification, while creating sustainable businesses.

The AfDB's feasibility study will be funded by the South-South Cooperation Trust Fund and conducted by the National Rural Electric Cooperative Association (NRECA) International. The study will consider regulatory, legal, technical and socio-economic factors that impact the creation of electric cooperatives in the two countries. The findings of the study, which will be delivered in May 2019, will inform the viability of plans to pilot the model in the selected countries.

### Nigeria's Renewable Energy Target: How Far Have We Come?

Nigeria's electricity mix is largely dominated by non-renewable energy sources – thermal (natural gas and coal) which make up 10,142 MW or 81% of the total installed capacity. The balances made up of renewable hydro energy that accounts for 2,380 MW of the total installed capacity<sup>7</sup>.

The total potential of renewable sources in Nigeria (solar, wind, biomass and hydro) has been estimated at over 68,000MW. Perhaps, it is with this in mind (coupled with our commitments under the Paris Agreements on climate change) that the government has, on several occasions, introduced policies aimed at developing the renewable energy space. For instance, the government introduced the Renewable Energy Master Plan (REMP) in 2005, which was a strategy aimed at increasing the contribution of renewable energy to Nigeria's total energy production by 2025. It was the REMP's objective to attain 13% contribution in the short-term (2005 - 2007), 23% in the medium-term (2008 -2015) and 36% contribution in the long-term (2016 - 2025).

In 2016, the government released the Sustainable Energy for all Action Agenda (SE4ALL-AA) for Nigeria as adopted by the Inter-Ministerial Committee on Renewable Energy and Energy Efficiency (ICREEE) and approved by the National Council on Power. This document draws from the targets set in the REAP and National Energy Efficiency Action Plans (NEEAP), revising some of these targets and setting out actions required to reach national goals and objectives within the period from 2015 to 2030. In the current plan, Nigeria has set targets of 5,335 MW and 13,800 MW of on-grid renewable energy capacity by 2020 and 2030, respectively. These should account for 27% and 30% of total energy generated in those years. However, less than a year to 2020, the renewable energy contribution to electricity generation in the country's national grid is still at a meagre 19%.

While the focus of renewable energy development in recent years has been on solar off-grid and mini-grid projects, the efforts to stimulate private sector led on-grid renewable energy has yielded little results. This is evident from the slow progress in the actualization of the projects of the 14 companies that signed Solar Power Purchase Agreements (PPAs) with the government worth \$1.75 billion to build 1,125 MW capacity of renewable power in the country. It is, therefore, imperative that an enabling environment is created to accelerate on-grid renewable energy development, in order to meet the set policy objectives.





# Conclusion

There is no doubt that while the Nigeria's electricity industry has mostly been privatized, the roles of Government cannot be overemphasized; given the need for policy development, continued reform advocacy, capacity development and other non-investor activities. All these are necessary to achieve the collective objective of restoring the industry's viability and improving the overall business environment.

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