



Sector background

- Electricity sector has been partly privatized in 2013 with privately owned generation and distribution
- Transmission remains state-owned
- Nigeria has an installed electricity generation capacity of approx. 13GW, mainly from gas resources
- Average generation is at 4000 – 5000 MW/day (1/10 of South Africa)
- Electricity is wheeled through one interconnected transmission grid and then passed through 11 distribution grids to the end-consumers; distribution losses amounting to approx. 46%
- Approx. 13GW diesel generated electricity capacity is installed in Nigeria



Sector Challenges

- Lack of cost reflective tariffs
- Huge amount of aggregate technical commercial and collection (ATC&C) losses
- Gas supply and infrastructure constraints
- Credit worthiness of major players in the NESI industry
- Overlapping mandates amongst MDA's



Sector Developments: Power Sector Recovery Programme

In 2017, the Federal Government of Nigeria launched the “Power Sector Recovery Programme”, aiming at:

- Restoring the sector's financial viability;
- Improving power supply reliability to meet growing demand and increasing electricity access by implementing off grid renewable power solutions;
- Strengthening the sector's institutional framework and increase transparency;
- Implementing policies that promote and encourage investor confidence in the sector;
- Institutionalizing a contract-based electricity market.

Measures are to be implemented until 2021 and include short- and medium term actions to avoid a market failure and system black-out



Sector developments

- World Bank offers support towards the Power Sector Recovery Programme with 2.5 billion USD, out of which 1 billion USD have been approved by the Executive Board as performance based loans and 350 million USD are to be invested into rural electrification
- President Buhari appoints Chairman of the Nigeria Electricity Regulatory Commission (NERC) in April 2018
- African Development Bank joins Power Sector Recovery Programme with 200 million USD
- 14 solar IPP developers signed “power purchase agreements” in June 2016; with no achievement so far
- Negotiations on additional guarantees such as “Put and Call Option” agreements are on-going: Government actors such as the Ministry of Finance expect the developers to significantly reduce the agreed tariffs as the condition for guarantees

Other developments include the Ministerial declaration of eligible customers in the NESI (May 2017) and the Mini-grid regulations adopted by NERC in 2017



Nigerian Energy Support Programme (NESP)

- NESP is funded by Federal German Ministry for Economic Cooperation and Development and the European Union and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) in partnership with Federal Ministry of Power, Works and Housing
- Aim: To enable and foster investments in a domestic market for Renewable Energy and Energy Efficiency and improve access to electricity for rural, communities
- Duration: Phase I ended in March 2018; phase II running from 12/2017 – 03/2021 (Joint financing until 11/2020)
- Funding: 33 Mio EUR (BMZ: 13 Mio EUR; European Union: 20 Mio EUR)



NESP I: Achievements

- The Nigerian Government has been supported with frameworks, regulations and tools for renewable energy and energy efficiency application, amongst them the National Policy for Renewable Energy and Energy Efficiency and respective Action Plans, amended grid codes for the feed-in of solar electricity, a mini-grid regulation, standards and labels for energy efficiency and a Building Energy Efficiency Code
- In five Nigerian states, approx. 15.000 people in rural areas benefit from electricity provided by solar powered mini-grids. The projects are private sector led with 50% private equity and debt financing, partly lent by German crowdfunder “bettervest”
- 1000 pupils at a boarding school in Plateau State benefit from warm water through a solar heating system
- 7 vocational trainings courses have been developed and introduced at 12 training institutes across the country; more than 1100 technicians and decision makers in partner institutions have been trained



NESP I: Achievements

The New York Times

CLIMATE | Solar Mini-Grids Give Nigeria a Power Boost



In Gbamu Gbamu, more than 2,500 people no longer rely on polluting generators to run businesses or light homes thanks to the increase in solar mini-grids. Andrew Esiebo for The New York Times

<https://www.nytimes.com/2018/12/02/climate/solar-mini-grids-give-nigeria-a-power-boost.html>



NESP II Support Areas

- Electrification Planning
- Sustainable Energy Access (Off-Grid/On-Grid)
- Enabling Environment for RE/EE investments (including vocational training)



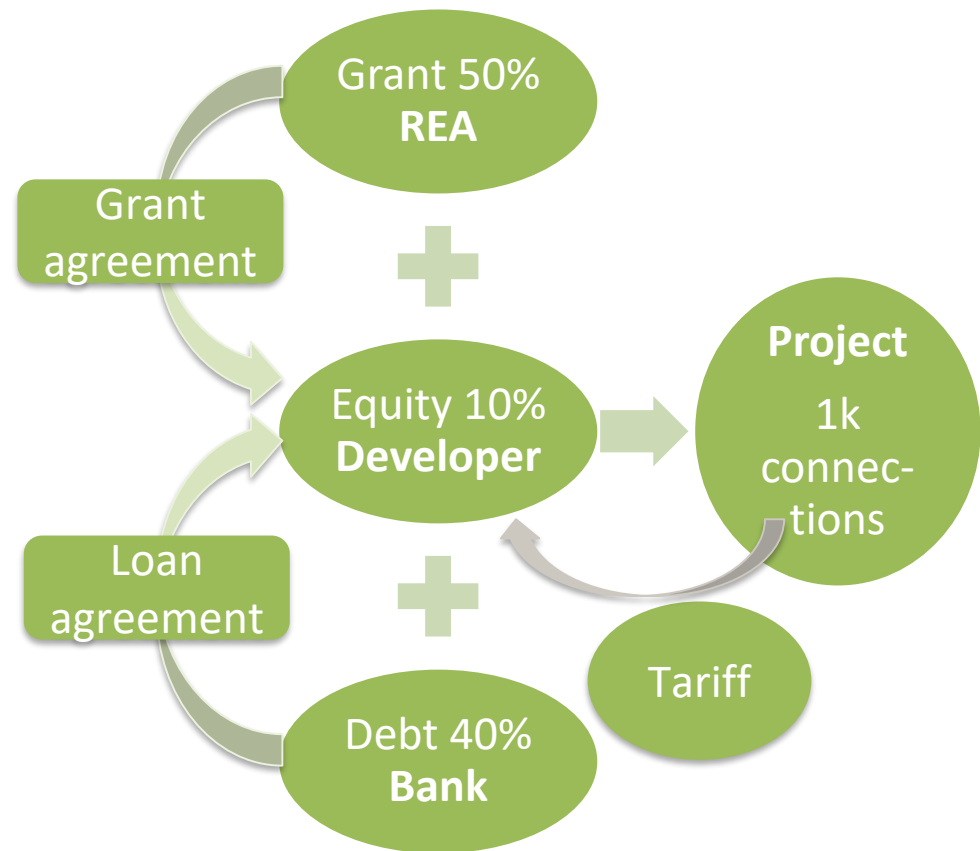
Electrification Planning

- With funds from EU and German Government, GIZ supports the establishment of electrification geo-data base as a data hub for policy planning and to trigger private sector investment
- Electrification status of rural and peri-urban areas will be mapped out for most of the country
- Data will be used to develop policies and frameworks, monitor policy targets and will serve as pre-feasibility for the private sector



Sustainable Energy Access (Off-Grid)

- NESP supports the Rural Electrification Agency in tendering rounds for the Rural Electrification Fund. With programme means, private sector led solar electricity for 100.000 people in rural areas will be supported
- Major focus is on further improving the regulatory frameworks for rural electrification and on unlocking access to finance (commercial/concessional) for Nigerian private sector





Sustainable Energy Access (On-Grid)

- Nigerian Electricity Regulatory Commission will be supported in enforcing bulk procurement order for solar generation
- Transmission Company of Nigeria will be supported in system planning and operation for solar grid integration
- Performance of local distribution grids will be strengthened through interconnected mini-grids and embedded generation



Enabling Environment for RE/EE Investments

- Building Energy Efficiency Code will be introduced in 3-5 Nigerian states
- Further industries will be trained in energy management
- Standards Organisation of Nigeria is supported in standardizing the quality of solar components including batteries
- Federal Government of Nigeria is supported to harmonize frameworks on import of RE/EE components
- An investment one-stop shop for investors in RE/EE will be enabled
- Associations are strengthened to enforce quality standards
- Further Nigerians will be vocationally trained to fit the skills needed in RE/EE



Additional technical cooperation support

- With funds from German Ministry of Economic Affairs and Energy, GIZ supports private companies in the Nigerian energy sector through the global “Project development programme”
- Based in Lagos at the offices of the Delegation of German Industry and Commerce, the programme aims at fostering partnerships between German and Nigerian companies to enhance know-how transfer



Thank you!

Nigerian Energy Support

Programme/ GIZ:

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