

GIZ's Nigeria's support towards achieving National and sectoral strategies for GHG mitigation in the industrial and building sector

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Ene Macharm, Nigerian Energy Support Programme



Background of Nigerian Manufacturing Sector

- Nigerian manufacturing companies suffer from reliable and quality power supply amongst other infrastructural challenges
- Electricity blackouts occur consistently accompanied with voltage fluctuations
- Most firms rely on generating their own electricity by using diesel generators which significantly affects the environment.
- Nigerian industries report that 40% of their total production cost is spent on energy which escalates their cost of production and erodes their competitiveness relative to other foreign firms.
- Nigeria Industrial sector (comprising manufacturing, mining, and utilities) accounts for a very small proportion of economic activity (6 per cent) with a manufacturing sector that contributed (8.86%) to GDP in 2017



Nigerian Industrial Revolution plan (NIRP)

- The Nigerian Government in view of improving the competitiveness of the manufacturing sector developed in 2014 the Nigerian Industrial Revolution plan (NIRP).
- NIRP seeks to build up industrial capacity and improve competitiveness of Nigerian Industries
- NIRP identifies Industry groups where Nigeria has comparative advantage such as – Agro Allied and Agro Processing; Metals and Solid Minerals Processing; Oil and Gas related Industries; Construction, Light Manufacturing, and Services as core focus



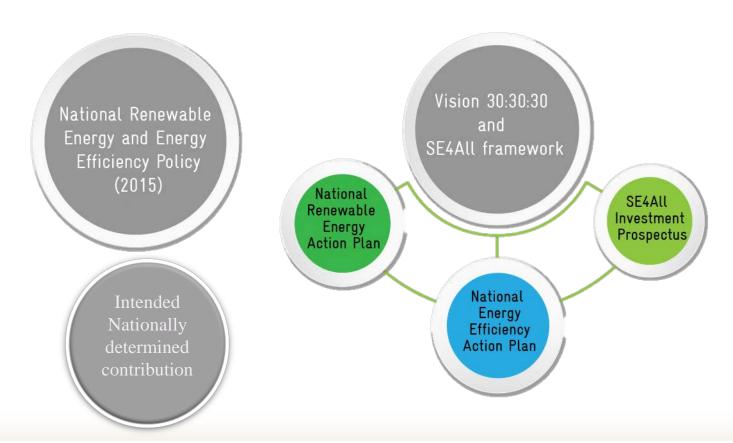
GIZ support towards energy in Nigeria

- Nigerian Energy Support Programme (NESP) II is part of the Nigerian-German bilateral cooperation.
- NESP is funded by the European Union and the German Government 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 disadvantaged, mostly rural, communities, also in conflict affected areas.
- Duration: First phase: 3/2013-10/2017 and Second phase: 12/2017 03/2021 (Joint financing until 11/2020)
- Funding: 30 Mio EUR (European Union: 20 Mio EUR; German Ministry for Economic Cooperation and Development - BMZ: 10 Mio EUR)
- Additionally: 3 Mio EUR by BMZ for supporting activities





Nigeria's RE/EE Policy Frameworks





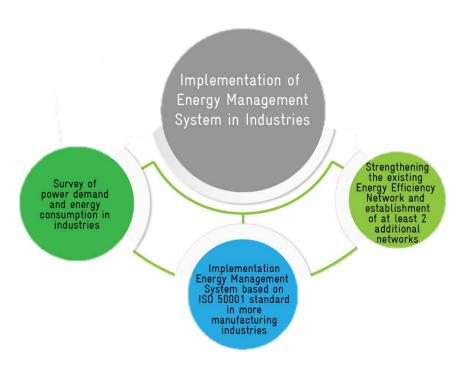
EE achievements in NESP 1 (Industries)



• Supported the first 2 Companies in Nigeria to achieve ISO 50001 certification (2017)



GIZ NESP's Support on EE in Industries (NESPII)





Building local capacity of energy and plant engineers

- Furthermore, GIZ NESP is supporting to build local capacity of independent industrial energy engineers and industries plant engineers on energy audit and energy management.
- Since the last 1 year 78 number of industrial energy engineers and industry plant engineers have been trained on energy audits.







Expected Results

The expected result of GIZ NESP's intervention is to increase the usage of energy efficiency measures in the Nigerian industrial sector with at least energy savings and CO2 emissions savings of 15% achieved.



GIZ NESP's SUPPORT IN OTHER SECTORS

GIZ NESP's SUPPORT IN OTHER SECTORS

- Building's
- Equipment's
- Finance and Services



EE Achievements in NESP I (Buildings)



BEEC MINIMUM ENERGY EFFICIENCY REQUIREMENT

Reduction of overall window to wall ratio (WWR) to 20% or implementation of shading;

Reduction of installed lighting power density (no to exceed 8W/m² for offices and 6W/m² for residential building);

Minimum requirement for roof insulation (thermal resistance not less than 1.25 m²k/w):

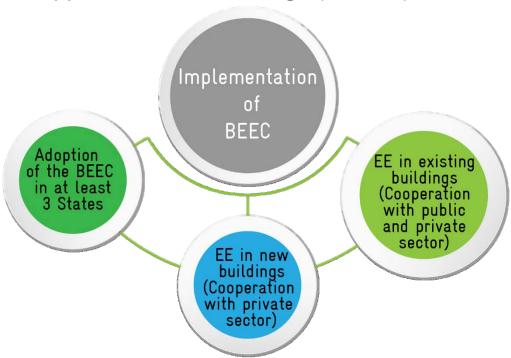
Minimum requirement for air conditioning equipment specified (EER/COP 2.8) and only inverter units allowed.

Application of renewable energy system e.g Solar water heaters, solar PV.





GIZ NESP's Support on EE in Buildings (NESPII)



- State Adoption: Consideration of states with structured building permit approval processes
- **New Buildings**: Cooperation with high-level private developers and developers working on social housing projects
- Existing Buildings: Focusing on the financial industry in order to build capacity for access to finance in EE projects



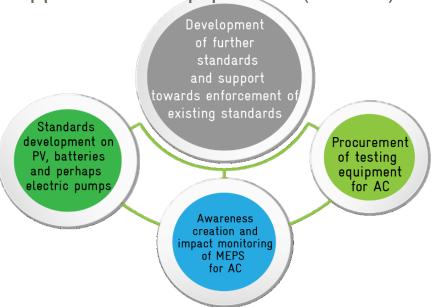
EE achievements in NESP I (Standards and Label)



Harmonisation process with the ECOWAS standards have been completed



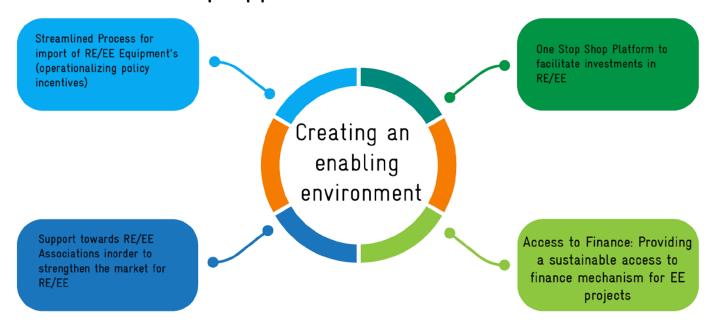
GIZ NESP's Support on EE Equipment's (NESPII)



- Awareness Creation: Working with universities to organize competitions for the development of awareness creation campaigns
- Testing Facility: For sustainability, testing facility will be equipped to test both old and new refrigerant ACs



Current scale up approach in NESP II (Finance & Services)



- Streamlined Import Process: Based on experience in NESP I of importing RE/EE equipment, the plan is to create a streamlined and clear import process for ease (focus will be on strengthening the operationalisation of the RE/EE policy).
- Support towards associations: Support to several associations working in the sector without coordination, which weakens their role in RE/EE market development
- Digitalization (One Stop Shop): Creating a digital platform to ensure access to RE/EE sector information like policies, regulations and relevant stakeholders



Thank you! Ene Macharm ene.macharm@giz.de