



Nigerian Energy Support Programme (NESP)

Improving the conditions for the application of and investments in renewable energy, energy efficiency and rural electrification

Challenge

Nigeria is Africa's number one producer of crude oil and has vast potentials for renewable energy. In spite of this wealth, the country's electricity supply remains unreliable. More than half of the population have no access to electricity, especially in rural areas where approximately 70% of dwellers do not have access to the national electricity grid. Those connected to the grid suffer from blackouts of several hours per day. Consequently, many households and businesses rely on expensive and ecologically harmful fuel generators.

In order to tackle these challenges and meet the country's power demand, the Nigerian Government restructured and privatised the power sector in 2013.

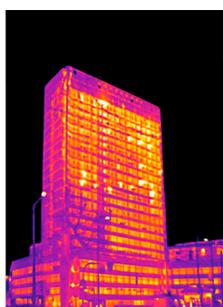
Despite these efforts, the country is still struggling to produce sufficient electricity. The peak power supply of around 4,000 megawatts for a population of 170 million people falls far short of the estimated demand of more than 14,000 megawatts. Renewable energy and energy efficiency could play an important role in boosting electricity supply and raising the electrification rate, but are not yet sufficiently considered within the policy and institutional framework.

Approach

Against this backdrop, the Nigerian Energy Support Programme (NESP) advises the Nigerian Government on how best to provide reliable and sustainable electricity to its people. NESP achieves this by promoting investments in renewable energy, energy efficiency, and rural electrification. It consists of four units – (1) Policy Reform and On-grid Renewable Energy, (2) Energy Efficiency, (3) Rural Electrification and Sustainable Energy Access, (4) Capacity Development and Training.

The technical assistance programme applies a multi-level approach supporting federal government institutions on policy and regulatory frameworks, working with state governments and distribution companies (DISCOs) on electrification planning and partnering with communities and the private sector on concrete pilot projects. Capacity development and training is a cross-cutting area.

Project Name	Nigerian Energy Support Programme (NESP)
Commissioning Party	BMZ/EU
Implementing Organization	GIZ
Leading Executing Agency	Ministry of Budget and National Planning
National Partners	Federal Ministry of Power, Works and Housing (FMPWH) and further partner institutions at federal and state level
Duration	March 2013 – February 2018 (5 years)
Financial Volume	EUR 24.5m



Picture left: Thermal image of a building

Picture right: Training of Trainers at NAPTIN Kainji, Niger State

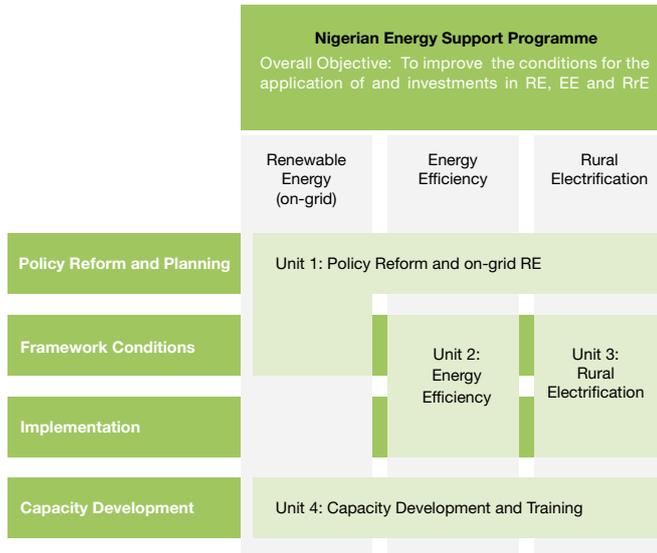




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Picture left: Participants at one of NESP's training workshops;

Picture right: Gurara Waterfalls, Niger State



- NESP's solar water heater pilot project provides 1,000 students with access to hot water and showcases the commercial and technical viability of solar water heating in Nigeria.
- NESP supports 5 mini-grid projects in the five partner states (Sokoto, Ogun, Cross River, Plateau and Niger); providing 10,000 people with access to sustainable electricity.
- NESP provides a detailed rural electrification plan for 20.9 million people in the five NESP partner states. Furthermore, NESP's rural electrification modelling results help the country to deliver a plan to deliver electricity for 57.1 million people via grid connection, 12.8 million through mini-grid deployments and 2.8 million via Solar Home Systems across Nigeria.
- One of NESP's training partners, the Centre for Renewable Energy Technology (CRET), has successfully replicated and delivered training on "Small Hydropower Systems" to 12 participants from the ECOWAS Centre for Renewable Energy and Energy Efficiency (ECREEE).
- At present, 898 participants from Nigeria's power sector have benefitted from NESP's trainings on renewable energy, energy efficiency and rural electrification.
- The delivery of NESP's developed courses on renewable energy and energy efficiency through the structured Training of Trainers programme, increases the knowledge and expertise of over 85 trainers from 12 training institutions and academies.
- NESP supports the improvement of the National Power Training Institute of Nigeria's (NAPTIN) service delivery and revenue generation with 30% of its operating cost recovered in 2015, compared to 14% cost recovery in 2013.

Impact in Numbers

- NESP offers technical, financial and legal support to the Nigerian Government to secure 2,000MW of grid-connected PV solar by 2020 at least-cost.
- As a result of NESP's support, the Nigerian Government has signed its first Power Purchase Agreements with Independent Solar Power Producers in July 2016 totaling 1,125MW of additional generation capacity.
- NESP has conducted energy audits in 2 pilot industries for establishing and implementing ISO 50001 Energy Management System. This will result in energy savings of over 6,200 MWh yearly amounting to over EUR 393,400.00.
- Over 45 participants from 20 Nigerian industries have been trained in Energy Management System according to ISO 50001 standard. This will, in the long run, encourage adoption of energy efficiency practices, leading to a reduction of industrial energy use and energy costs savings.

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The programme is part of the European Union-funded « Energising Access to Sustainable Energy in Nigeria (EASE) Programme » aimed at improving energy access in Nigeria, with a focus on the use of Renewable Energies as well as on improved energy efficiency.

