



PROJECT AT-A-GLANCE

Reducing Black Carbon Emissions by Transitioning to Clean and Sustainable Lighting

GEOGRAPHICAL SCOPE

National project

Nigeria



TARGETED PRODUCT



STATUS **ACTIVE**

STARTING DATE **APRIL 2017** CLOSING DATE **MARCH 2019**

TEAM LEADER

Paul Kellett
paul.kellett@un.org

IMPLEMENTING PARTNERS

UNEP, UNDP

DONOR

Climate and Clean Air Coalition

PARTNERS

ECOWAS Center for Renewable Energy and Energy Efficiency (ECREEE), GOGLA

TOTAL PROJECT COST

 **\$ 0.8 million**



KEY ACHIEVEMENTS TO DATE

From tackling current barriers and based on U4E Country Assessments, the reduction potential range in electricity consumption, monetary savings and GHG emissions mitigation in Nigeria due to a market transformation to energy efficient lighting – compared with current values, with a Best MEPS Scenario (2016 levels) – is very significant by 2030:

Annual Savings:



2.5 TWh

on annual electricity savings
(Avoided investment costs for
6 power plants of 100MW)



12 megatonnes

of CO₂ avoided annually
(equivalent to more than
650,000 cars)



Over

\$ 150 million

savings in annual electricity
costs



ENERGY & CLIMATE BRANCH

THE CHALLENGE

The number of people living in areas without access to the electric grid in Africa is expected to rise to about 700 million by 2030 (Lighting Africa 2013). This reality also encompasses Nigeria, a country with a population of 182 million people, but with limited access to energy (59% of the population). In the meantime, populations without access to grid electricity rely on polluting and dangerous sources of lighting such as kerosene lamps, candles, open-fires and battery-powered torches, raising indoor air pollution and mainly impacting the health of impoverished residents, nurturing significant fire hazards. Fuel-based lighting is generally of low quality and expensive, impeding learning and economic productivity.

Nevertheless, activities in this initiative intend to increase the market penetration of sustainable solar off-grid lighting solutions and reduce black carbon and greenhouse gas emissions from the use of obsolete lighting technologies. Policy Mechanisms can promote better lighting alternatives and in particular a trusted quality assurance program, adequate financing available across the supply chain and effective consumer awareness campaigns.

WHAT WE DO

United for Efficiency Center of Excellence team of experts, following the U4E Integrated Policy Approach, provided technical assistance to Nigeria to accelerate the increase in access to clean lighting thorough the promotion of solar off grid lighting and the phase out the use of based kerosene lighting, which will result in reduction of indoor air pollution, health and safety, livelihood opportunities. The project activities include:

- Development of a country assessment including black carbon emission status and potential savings emissions due to kerosene lanterns usage, plus status reports on the off-grid lighting situation
- Development of Minimum Energy Performance Standard for off grid lighting,
- Development and implementing supporting policies to accelerate the deployment of off-grid lighting solutions.
- Design and implementation of a partnership- based demonstration project of solar off grid systems.
- Advocacy campaign to raise awareness on low-carbon clean solutions.



UN ENVIRONMENT'S ROLE



United for Efficiency provides developing and emerging economies through their in-house experts and specialized partners with tailored technical support to transform their markets by accelerating the adoption of energy-efficient lighting, appliances, and equipment. Currently it is present in more than 30 countries worldwide. Based on each country's circumstances, United for Efficiency works with any of the following products: lighting, refrigerators, room air conditioners, motors and transformers - 5 products that together consume over half of the world's electricity.

By following United for Efficiency's Integrated Policy Approach and covering crucial elements from the transformational pathway, such as Standards and Regulations; Labelling and Communication strategies; Financial Mechanisms; Monitoring, Verification and Enforcement; and Environmental Sound Management, countries achieve a lasting market transformation, allowing monetary savings on their utility bills, helping businesses thrive through greater productivity, enabling utilities to meet growing demand for electricity, and assist governments in reaching their economic and environmental ambitions. Such support is available at three levels: Global, Regional and National providing several tools and resources to support committed countries in their efforts, such as Policy Guides, multiple assessments (country level, street lighting, etc), regional policy roadmaps and harmonization process recommendations, development of training for policymakers and practitioners and National action plan implementation support.