Catalyzing Markets for Modern Off-Grid Energy

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Maryama and Nadye Fatou Dieuck reading a school book with a solar lamp, Dakar, Senegal ©Bruno Dèmèocq/Lighting Africa

LIGHTING AFRICA
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AN INNOVATION OF
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Lighting Africa, a joint IFC - World Bank program, catalyzes the private sector to build sustainable markets for affordable, high-quality, modern, off-grid solar lighting and energy products for people in sub-Saharan Africa not connected to grid electricity.

The Situation

Close to 600 million people in sub-Saharan Africa – about two-thirds of the population – live without grid electricity. This lack of modern energy services severely limits educational and economic opportunities, as well as negatively impacting day-to-day quality of life and health. Those without electricity often use polluting and expensive lighting sources such as kerosene lamps or candles, the fumes of which can cause serious health problems. Modern, high-quality off-grid lighting and energy products offer a real and sustainable alternative to the off-grid population.

Since running its first pilot projects in Ghana and Kenya in 2007, Lighting Africa has already enabled more than 35 million people across Africa to access clean, affordable, safer lighting and energy, and aims to reach 250 million more people by 2030. Lighting Africa is currently operational in 11 countries - Burkina Faso, the Democratic Republic of Congo, Ethiopia, Kenya, Liberia, Mali, Nigeria, Senegal, South Sudan, Tanzania and Uganda, with plans to continue to extend our activities across the continent.

Lighting Africa [illegible] education campaign (Better lighting for better lives) in Ghana [illegible] Africa

Consumer education in Ghana ©Lighting Africa

What We Do

Lighting Africa works across the supply chain to catalyze the market for modern off-grid lighting and energy products. Our work is primarily focused on three critical areas: working with companies to develop markets that deliver commercial energy access solutions for the base of the pyramid (BOP) population, attracting investment by improving the sector's enabling environment, and working with governments to address policy barriers. To achieve these objectives, Lighting Africa conducts the following activities:

Market Intelligence

Lighting Africa conducts in-depth market research and publishes the findings, demonstrating the extensive opportunities presented by the off-grid market in sub-Saharan Africa and providing critical data to help manufacturers, distributors and retailers to make informed business decisions.

Quality Assurance

A cornerstone of the IFC-World Bank Lighting Africa program is our dedication to quality. The purchase of an off-grid lighting product or solar home system (SHS) can represent a significant investment for a family in sub-Saharan Africa, and consumers simply can't afford to purchase something that doesn't work well or won't last. In

order to protect consumers and prevent the eroding of consumer confidence in off-grid products in the process, Lighting Africa developed a quality assurance framework that included test methods, quality standards, and a product testing and verification program. The program's quality assurance activities have expanded to cover markets in Asia and the Pacific Islands, and they are now managed through our affiliated program, Lighting Global. Since the quality assurance program was launched in 2009 over 150 off-grid solar products have been evaluated, and approximately 55 currently meet the Lighting Global Quality Standards.

Access to Finance

Access to finance all along the supply chain has been identified as a critical need for the functioning and growth of the off-grid lighting and solar home system (SHS) market. From distributors who need working capital to hold adequate product stocks, to consumers needing credit to make a purchase, Lighting Africa facilitates and leverages financial products to help provide the capital that is needed.

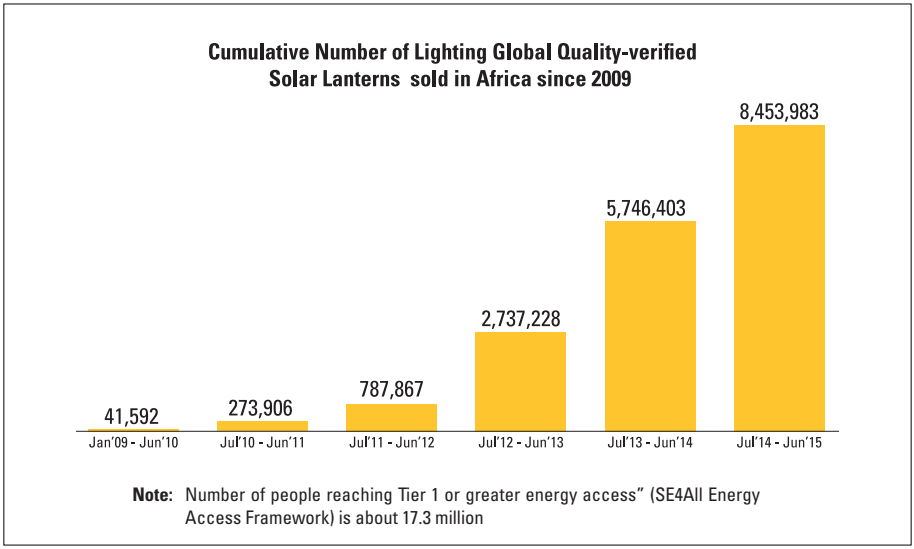
Consumer Education

For the off-grid lighting products and solar home system market to grow and thrive, consumers need to be aware of the benefits that these products provide over fuel-based and other sources of lighting. To educate potential end users on the many benefits of quality off-grid lighting and energy products, Lighting Africa produces consumer education materials and conducts consumer education campaigns in partnership with manufacturers and distributors.

Business Development Support

The off-grid lighting market has been typified by remarkable innovation and novelty, and largely driven by social entrepreneurs. Lighting Africa provides advisory services to support innovative business models that expand energy access at the base of the pyramid (BOP).

Lighting Africa works with governments to integrate modern off-grid energy solutions into their energy access programs. In addition, the program works with governments towards removing policy and regulatory market entry barriers in order to increase access to clean energy, and to foster a vibrant competitive market for off-grid energy products.



Note: Number of people reaching Tier 1 or greater energy access" (SE4All Energy Access Framework) is about 17.3 million

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The Products

Lighting Africa works exclusively with products that have been quality-verified according to the standards maintained by our affiliated program, Lighting Global. These products have all undergone rigorous quality testing utilizing test methods in IEC Technical Specification 62257-9-5, thereby ensuring that they are safe, durable, and warranted. Lighting Africa and Lighting Global have recently expanded their activities to support solar home system kits (SHS) up to 100W. These products are all plug-and-play and can power appliances such as fans, radios, and televisions sets, in addition to providing light and mobile phone charging.

Who Benefits?

Industry: Manufacturers and distributors benefit from the wealth of knowledge and information made available by Lighting Africa on markets, consumer needs, and industry quality standards, which has been used in developing consumer demand driven solar lighting and energy products. The program also provides business development support to companies committed to bringing to market high quality yet affordable products for low-income households.

Consumers: Consumers benefit from the increased availability of affordable, high quality lighting and energy products on the market from companies that work with Lighting Africa. Consumer education campaigns work to ensure that consumers become knowledgeable about the benefits of the available technology and how to identify quality products. Consumers can get more information on available quality-verified solar lights and solar home systems (SHS) on our website: *www.lightingafrica.org/products*.

Development Organizations: Organizations implementing off-grid lighting programs in Africa and other parts of the world can access the lessons and experiences from Lighting Africa to guide them in designing and implementing their activities.

Governments: Governments can benefit from the program's advice on how to integrate modern off-grid lighting in their rural energy access expansion programs, and how to use the market approach to increase energy access as well as learn from the experiences of other countries where we are working. Governments can easily adopt the global off-grid lighting standards, initially developed by Lighting Africa, to safeguard their markets from products of unverified quality.

A customer gets a feel of a solar lighting product ©NIWA

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Lighting Africa is part of the World Bank Group's contribution to Sustainable Energy for All (SE4All). It is implemented in partnership with the Energy Sector Management Assistance Program (ESMAP), the Global Environment Facility (GEF) and the governments of Australia, Austria, Denmark, Finland, France, Germany, Iceland, Italy, Lithuania, the Netherlands, Norway, Sweden, the United Kingdom, and the United States of America.

For more information, visit *www.lightingafrica.org*, or follow us on Twitter *@lightingafrica.*