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PPIAF Supports Efforts to Catalyze Access to Modern Off-Grid Lighting Products in Africa by Engaging the Private Sector

PPIAF provided a series of three technical assistance grants to help progress the aims of the Lighting Africa program. As a result of PPIAF's support, over 40,000 people in Rwanda received access to lighting solutions¹; Cameroon, Democratic Republic of Congo, Ghana, Ethiopia, Rwanda, Kenya, Tanzania, and Senegal received information about policy barriers hindering the development of their off-grid lighting markets; Ethiopia received capacity building training designed to unlock private investment and spark its clean, off-grid lighting market; and Tanzania received support for a market intelligence study aimed at informing the development of its clean, off-grid lighting market.

Roughly 600 million people in Sub-Saharan Africa have no access to grid electricity², a number expected to rise to about 700 million by 2030. As a result, Sub-Saharan African households rely on costly, inefficient, and often hazardous fuel-based products—such as kerosene lamps—that account for up to 30% of total household incomes. Clinics, schools, small enterprises, communities, and others also rely on these expensive, poor quality fuel-lighting solutions which—despite the high costs—do not create a high value for consumers, have low levels of energy conversion efficiency and poor lighting quality.

Given that mass electrification is many decades away in Africa, it is important to engage the private sector in finding alternative solutions. The Lighting Africa program was launched in September 2007 with the goal of catalyzing markets for clean, modern off-grid lighting products to light up the homes and businesses of 250 million people by 2030³. In support of the program's objective, PPIAF alongside other donors provided the startup funding.

PPIAF SUPPORT AND OUTCOMES

Since 2007, PPIAF has provided three grants in support of Lighting Africa's mission. The program's structure includes activities in five main areas: product quality assurance, finance across the supply chain, market intelligence, consumer education, and policy. PPIAF grants supported work in every area but consumer education.

PPIAF's first grant to the program targeted work in Rwanda, one of Lighting Africa's early test markets. In Rwanda, PPIAF support translated into the implementation of a modular lighting system by which even the poorest could purchase individual lighting units over time. Over an 18-month implementation period, new innovative modular lighting products were introduced to 32 districts and provided 8,000 light-emitting diode (LED) lights to rural households and businesses, benefitting over 40,000 people. Sales of the modular LED lights are currently growing by 20% a month, and lessons learned from this project have contributed to increasing awareness of the modern off-grid lighting sector and emerging successful business models that Lighting Africa can share with new enterprises.

The second PPIAF grant, completed in 2011, supported a study on key policy and regulatory issues affecting adoption and scale-up of clean, low-cost lighting products, and services in Sub-Saharan Africa. Country policy reports were prepared for eight countries in Sub-Saharan Africa: Cameroon, Democratic Republic of Congo, Ghana, Ethiopia, Rwanda, Kenya, Tanzania, and Senegal. The preliminary findings of the study were presented to African policy and decision-makers at a workshop held in Nairobi, Kenya in May 2010. Key issues addressed during the workshop were policy and regulatory barriers and the mobilization of finance and business support services. Recommended policy interventions included: i) incorporate modern lighting strategies into overall government development and poverty reduction strategy; ii) adjust regulatory environments to favor modern lighting solutions; iii) support a market transition to high-quality products; iv) facilitate a competitively priced supply chain that delivers lighting products to all segments of the market; v) ensure that the widest possible access to modern lighting is achieved, particularly among the poor.

The final grant PPIAF provided to the Lighting Africa Program supported follow up work in Tanzania and Ethiopia. The portion of the grant that supported Tanzania funded a market intelligence

report of base of the pyramid lighting solutions in the country. The study was done to help product marketers understand the brand new off-grid lighting market segment, and accordingly plan their sales and marketing activities. This study will be followed by a project to address the market entry barriers that prevent private sector engagement; thereby laying the groundwork to unlock private sector investment⁴.

The portion of the grant used in Ethiopia provided capacity building assistance to Ethiopian customs and government officials. The first piece of assistance, a workshop, focused on teaching customs officials about import regulations for renewable energy technologies. The workshop aimed to familiarize the participants with Lighting Africa Associate products and the process by which these products are imported duty-free into Ethiopia. The workshop also served as a forum for industry stakeholders to express questions and concerns related to product importation, and to bridge communication gaps that exist between the participating government agencies. The second piece of assistance helped Ethiopia's Development Bank set up a foreign exchange facility that provided dollars to importers of Lighting Africa products. These importers operate in a capital constrained environment, which makes it difficult for them to obtain financing to purchase and import lighting products. This facility was designed to address this financing barrier and spur the introduction of clean, safe lighting solutions in Ethiopia.

DONOR COORDINATION

By nature, the Lighting Africa Program required donor coordination. The program was a joint effort by many donors that included: the Africa Renewable Energy and Access Grants Program (AFREA), the Asia Sustainable and Alternative Energy Program (ASTAE), the Energy Sector Management Assistance Program (ESMAP), the Global Environment Facility (GEF), Good Energies Inc., Italy, Luxembourg, The Netherlands, Norway, the Renewable Energy and Energy Efficiency Partnership (REEEP) and the United States

RELATED PPIAF ACTIVITIES IN OFF GRID LIGHTING IN SUB-SAHARAN AFRICA

1999: UGANDA: Strategic Options for Rural Electrification, \$40,000
2009: Africa: Compact Fluorescent Lamp (CFL) Waste Management, \$170,000

¹For more information on the outcomes of PPIAF support to Rwanda within the context of the Lighting Africa Initiative, please see our earlier impact story: "PPIAF promotes the development of modern off-grid lighting devices in Africa". Feb. 2011. Online: <http://www.ppiaf.org/sites/ppiaf.org/files/publication/PPIAF-Impact-Stories-Lighting-Africa.pdf>.

²International Energy Agency (IEA). "Global energy trends to 2035", in World Energy Outlook 2013, IEA. Online: <http://dx.doi.org/10.1787/weo-2013-5-en>

³World Bank Group. Lighting Africa. Online: <http://lightingafrica.org/about-us/>

⁴Ibid. Where we work. Online: <http://lightingafrica.org/where-we-work/tanzania/>

ENABLING INFRASTRUCTURE INVESTMENT

PPIAF is a multi-donor trust fund that provides technical assistance to governments in developing countries to develop enabling environments and to facilitate private investment in infrastructure. Our aim is to build transformational partnerships to enable us to create a greater impact in achieving our goal.