

Electricity for 125 million African Families

About 125 million African families (600 million people; 45% of Africa's population; mostly smallholder farmers) don't have access to electricity. They use kerosene lamps and candles for lighting and charge their mobile phones in kiosks. Access to electricity will provide these families with multiple benefits: saving money; better quality light; improved health / less CO2 emissions; improved safety; and financial inclusion. This explains why broad consensus exists that these families should be provided with electricity as soon as possible. Therefore, during the past decade African governments, electricity companies, solar home system companies, mini-grid companies, World Bank, UN and NGOs did their best to achieve this objective. Unfortunately, they didn't succeed: the 125 million number has been stable since 2010.

The main reasons are: connecting houses to the grid and mini-grids goes much slower than planned; target families don't know about solar home systems ('SHS') and their benefits; families that do know about SHS think they are inferior to a (mini-)grid connection and wait for such connection; SHS are too expensive, also on credit; and PayGo model is less suitable for low educated families.

Though, there is good news: all elements needed to provide the 125 million families with electricity by 2025 are available today in Africa. The challenges are to combine them in an effective way and to reach scale fast. Against this background the team of NOTS Solar Lamps, since 2011 active with sales and distribution of SHS in Africa (www.nots.nl), developed the 'Electricity for 125 million African Families' initiative ('EAF125').

EAF125 Goal

Provide 125 million African families with access to electricity by 2025 through Made in Africa SHS.

Main elements of EAF125

- a. Affordable technology: Tier 1, Lighting Global certified SHS are available for USD 45 (consumer price; if manufactured in large quantities). When provided on credit with a 2-year repayment period, the costs including interest are about USD 0,55 per week; affordable for most of the 125 million families because they currently spend such amount on kerosene, candles and phone charging.
- b. Effective ICT solutions: with modern ICT solutions (for targeted marketing via SMS and USSD; for credit assessment; for auto-withdrawal of loan repayments; and for default rate management) it is possible to connect the 125 million families and manage their loans in a cost-effective way.
- c. Smart marketing approach: an approach that leverages the client base and brand strength of mobile network operators (MTN, Orange, Airtel, etc.), including: (i) using their brands to make the availability and benefits of SHS known to the target families; (ii) using their client data for credit assessment and for reaching out to the specific target family segments; and (iii) using their mobile money platforms to pay back the SHS loans.
- d. Smart Africa Flagship Project: listing EAF125 as a Smart Africa Flagship Project (smartafrica.org) will get EAF125 on the agenda of at least 23 African governments, African companies and investors, with multiple positive effects. On July 24, 2019 the Government of Rwanda and Smart Africa agreed that EAF125 will become a Rwanda endorsed Smart Africa Flagship Project.
- e. USD 2 billion Investment Capital: to provide 125 million families with a loan to purchase a SHS during the period 2020 – 2025 requires about USD 2 billion of investment capital. Building on experience of NOTS in Rwanda, about 65% of this capital could be raised from local institutional investors through the issue of notes / bonds in local currency.
- f. Smart model for reaching scale fast: a model in which the SHS technology, ICT platform, marketing approach and funding model are provided in a kind of franchise model to successful, strong entrepreneurs (one per country) who are eager to provide the population of their countries with electricity by 2025.

EAF125 Alliance

To optimize and implement EAF125 an effective, agile alliance is needed. NOTS aims to have such alliance in place by November 2019. NOTS started conversations with several organizations, including McKinsey, SEforALL, IFC / World Bank group, Airtel and Bank of Kigali. All responded positively.