

Devergy



Country: Tanzania

Location: Morogoro and (soon) Mbeya regions

Start of Operations: 2010

Sector of activity: Rural electrification / photovoltaic mini-grids

Size / Revenues: In July 2015 the company was managing 6 mini-grids, serving over 800 customers. 2014 revenues amount to EUR 70.000.

Problem / Opportunity

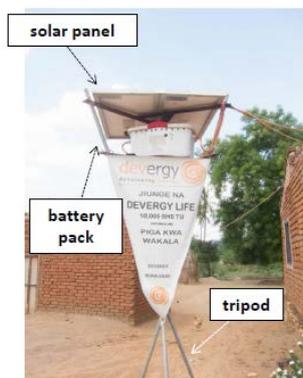
Tanzania is one of the poorest countries in East Africa, with roughly 70% of rural population living under the 1,25 USD/day Poverty Line. Tanzania is also the least electrified nation in East Africa with over 7,2 mil off-grid households: only 5% of the country's 40 million rural residents have access to electricity. Low electrification levels strongly correlate with poverty, illiteracy, and poor health and force BoP consumers to use expensive and polluting energy alternatives (i.e. kerosene, candles, batteries and phone charging services). Government resources are limited, and universal electrification will not be reached in the foreseeable future.

The Solution proposed by the Company

Devergy builds and operates solar-powered electrical mini-grids in off-grid villages located in rural Tanzania, providing an affordable and reliable electrical service to low-income people not connected to the power grid.

Devergy mini-grids are very simple, as they are made of energy boxes ("Enbox") connected each other via cables and connected to meters placed at household or shop level. Each Enbox can roughly power 5 households, and is made of a 60 W solar panel, connected with a battery pack (with 2,5 days of energy), and mounted on a tripod. Some Enboxes also have a GSM antenna, which allows the mini-grid to be monitored and controlled in real time. Every meter is associated with a unique user number, and allows the company to grant access to the power, as the supply of electricity is activated on a pre-paid basis, as it happens with mobile phone services.

The Devergy Enbox



The Entrepreneurs: Devergy was founded in 2010 by Fabio de Pascale and Gianluca Cescon, two Italian engineers previously working in the Netherlands. They developed the idea to start Devergy while traveling in Guyana, where they were asked by some villagers to fix some small solar installations that had been out of order since a long time due to trivial technical problems. They easily managed to solve the issue, and they realized how much such a small effort could mean for a small off-grid village.

After working for over one year on a market assessment, they identified Tanzania as the best potential market due to its favorable legislation for off-grid electricity and to its lack of public financing for grid expansion, and they moved to the country to start Devergy.

The Impact Model: The solution developed by Devergy is especially suited for BoP customers, as it tackles all the main problem that the poor have to face in relation with the access to electricity:

- **Cost:** Devergy covers all the installation costs, while the final customer pays only the electrical consumption. The company allows significant monetary savings for its customers: up to 30% for basic lighting (vs kerosene) and 90% less for phone charging (vs batteries).
- **Maintenance:** Devergy owns the mini-grid and takes care of all the maintenance activities and costs; the risk for the customer of not being able of fixing the grid is eliminated.
- **Pollution:** In contrast to what happens with the most common alternatives (kerosene lamps and candles) the solution proposed by Devergy is 100% pollution-free, as it relies on a renewable source

In July 2015 the company was managing 6 mini-grids installed in 6 different villages, for a total of 800 customers. Thanks to the funds raised from a pool of investors, Devergy will expand its activities in other areas: the company plans to install more than 330 mini grids and to serve 150.000 customers by 2020.

Date of Opes Investment: July 2015

The Investment: typology, amount, and Opes role

Opes was part of capital increase, co-investing EUR 100.000 in preference shares; other international investors – some of which with a specific focus on renewable energy – participated to deal: Acumen (US), HERi Africa (Germany), Persistent Energy Partners (US) and Impact Assets Emerging Market Climate (US).

The funds will be used to finance the installation of the new grids. An Opes representative will seat as Observer in the company's Board of Directors.