

ADEME



Agence de l'Environnement
et de la Maîtrise de l'Energie

Club ADEME
International



enviroearth

ENVIROEARTH

Installation of a solar PV mini-grid in Sitolo Village, Malawi

Installation of a 80kWp/950kWh solar off-grid mini grid for Sitolo Village, Malawi

Foreign partners



Sustainable development goals

Sitolo village, located in the Mchinji district, is not connected to the public grid network. Access to electricity was therefore inexistent before the installation of the mini-grid, limiting economic activities and development. The solar hybrid system has been specified according a UN Energy Efficiency survey. The goal was to have solar power to provide all of the required energy, and only one diesel generator as a back-up in case of severe weather conditions or system failure. The goal of the project was to allow the development of Village activities including 250 households and several businesses connected: School, Health Center, Grocery, Barber shop, Maize Mill and six street lights. This first project in Mchinji district is likely to become the base of a multi-site mini grid including nearby villages.

Local customers and beneficiaries

The UNDP Malawi country office in Lilongwe supervises and fund rural electrification projects in Malawi, supporting deployment of renewable energy, improving electricity access rate in the country. The project allowed the economic development of the country, with productives activities generators of incomes as shops, Maize Mill, groceries... Thanks to this development, inhabitants will benefit from a non-stop access to electricity in their houses, schools and Health Centers, thereby offering them more security and a better quality of life.



Malawi,
Sitolo Village



Duration
1 year



Total costs
408 845 USD



Staff called up
6 pepoles

Thematic



ErVICES performed

Prestations de service
Studies
Equipment Delivery - Commissioning

To watch !

Community Energy Malawi shared a video where we can see a man dancing in celebration after solar electricity connection at Sitolo

[Video link](#)

Milestones

Having worked closely with our local partner (Community Energy Malawi), the future operator and UNDP, we took responsibility for the overall project in order to ensure a perfect integration of the solar farm and a maximization of the performance:

- Design of the installation meeting IEC standards,
- Selection, procurement & factory tests of the material composed of:
 - 2 sets of ground mounting PV panels
 - 2 banks of lead carbon (Pb-C) batteries (948kWh total)
 - 1 100kW 3-phase inverter/charger with an embedded 100kW MPPT
- 1 Turnkey 40ft HC container including air-conditioner and smoke detectors
- International and national logistics
- Installation (electrical and civil works)
- On-site commissioning & training
- 3-year Maintenance contract.
- Monitoring the production of the solar farms and ensure after-sales service.



Post-project results

Introduction of Enviroearth into the mini-grid market, where the company plans to start other such projects in 2020. Strong dynamization of the local activity within the village and will duplicate the experience to the neighbouring villages.



Environmental impact

The plant is able to provide: 263 000 kWh of energy per year Reducing the equivalent of 178 tons of CO2 emissions per year



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With more than 130 members, the Club ADEME International assists the SMEs in its network in the development of innovative projects and international partnerships. The objective is to participate in the dissemination of French knowledge, by supporting the private and public sector in the ecological and energy transition sector in order to meet global environmental and climate challenges.

For more information : www.clubinternational.ademe.fr

