

ENGIE Equatorial

Lolwe Island Mini-grid project, the future
of distributed energy access and rural
service delivery in Africa





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Hybrid solar mini-grid of 600kw capacity with a productive hub and e-mobility

The Lolwe mini-grid, developed by ENGIE Equatorial, is a fully integrated multi-utility, going beyond electricity towards holistic service delivery. The project addresses the urgent need of the local population that was lacking access to energy, clean water and much more.



Beyond delivering affordable, reliable and renewable electricity, the Lolwe mini-grid features a productive hub that will transform raw material into value adding products, addressing basic needs that are currently insufficiently met on the islands and reinforcing the Project's business case. An electric mobility proposition for fishing boats and motorcycles completes the green energy enabled infrastructure integration on the site, for the benefit of users. Finally, ENGIE Equatorial is also providing business incubation and asset financing services to empower the growth of local businesses.

The Lolwe project is a truly scalable model - matching green infrastructure and ICT innovation for delivery of real impact -the beginning of a "mini-grid 2.0" model that delivers more for investors and communities alike and is a significant milestone and benchmark for the energy access space.

Key Facts & Figures

Site Name:
Lolwe island, Namayingo District

Number of inhabitants
15,000 Connections:
3783 (757 businesses and 3026 households)

Capacity installed:
(funded by ENGIE Equatorial, installed by SagemCom):
600 kW PV, 600 kWh battery storage, 150kW

Distribution network:
(funded by REA)

Last Mile part:
(funded by REA, installed by ENGIE Equatorial)

Productive Hub:
producing services and funded and operated by ENGIE Equatorial

COD: October 2021

A truly integrated approach, with the productive use of energy at the core of the business.



A Productive services hub:

Lolwe island does not yet have a water purification unit and people drink unpurified (sometimes boiled) water, collected from the lake which is dangerous and labor-intensive. Our industrial hub will provide water-pumping, distribution and purification services.

The island's economy is driven by the fishing industry. The Lolwe hub will increase productivity considerably through Ice making devices replacing imported and wasted ice and modern fish-drying facilities for conserving fish collected by the island's fishermen : 16 tons of ice will be produced on a daily basis to conserve the 8 tons of fish collected every day on the lake.

An incubation program

An incubation program is put in place to support 200 entrepreneurs in developing productive usages of energy. Training sessions on appliances and business opportunities will be organized.

ENGIE Equatorial is implementing pilot projects in electric mobility through the introduction of electric boats for the fishermen and electric motorbikes for moto taxis as well as a battery charging service on the island.

A project fully aligned with a sustainable, green and blue economy with a strong impact for the communities of Lake Victoria and a benchmark to replicate across rural Africa.

Lolwe is an island of 15 000 inhabitants situated at 50 km from the mainland of Uganda. A lot of the Island's businesses currently depend on a diesel generator, seriously hampering the economic development of this area.

- The Lolwe Island mini-grid project will have a lasting positive impact on the climate, environment and economy through reliable energy access (15 000 people impacted today, 300 000 in 3 years).
- Fuel replacement by solar energy - all diesel sources of energy to be replaced by solar (agroprocess, waterpumping, telecom, transport and small industry).
- Productivity will increase because of lower energy costs and skills development. Health will improve thanks to clean water access and health facilities connected to reliable power.



ENGIE Energy Access + Equatorial Power and its partners, driving impactful energy access in African rural areas



ENGIE Energy Access and **Equatorial Power** have joined forces and will operate the mini-grid and productive hub. ENGIE Equatorial, the Joint Venture Company is 80% ENGIE and 20% Equatorial Power with the possibility for Equatorial Power to reach 50%. Total Investment Cost is around 3 MUSD.

REA (the Rural Electrification Agency) finances the distribution grid and will invest 230 USD per connection for the last mile part : all equipment from the meter to the plugs inside the customer house. Total part of subsidies is about 35 % of the Lolwe project.

Sagemcom is the EPC company that has installed the Generation Unit of the Lolwe mini-grid.

Enventure is the organization selected to provide business incubation programs to 200 entrepreneurs on the islands in order to help them develop new or existing businesses based on electricity usages.

A partnership is being established with **AVSI Foundation** for training up to 500 additional entrepreneurs, with a focus on youth and women, to exploit the commercial and social benefits deriving from access to energy.

UMASS is associated with the electric boat project to provide clean and affordable energy solutions to the fishermen.

Strong International Involvement and Interest

The Lolwe Mini-grid project is the result of a strong European-African alliance, with companies that have a proven track-record of delivering projects, covering the full-value chain from business development, engineering, construction and operation to funding.

ENGIE Energy Access is part of ENGIE, the world's leader in the energy transition. It is a leading off-grid solar, Pay-As-You-Go (PAYGo) and Mini-grid solutions provider in Africa committed to delivering life-changing, affordable, reliable, and sustainable energy solutions with exceptional customer experience. With over 1,700 employees, operations in 9 countries across Africa (Benin, Côte d'Ivoire, Kenya, Mozambique, Nigeria, Rwanda, Tanzania, Uganda and Zambia), it has already transformed 6.5 million lives in 9 countries and aims to impact 20 million by 2025.

Equatorial Power is a distributed energy infrastructure company that provides reliable and affordable access to energy to underserved communities via solar mini-grids, whilst also delivering transformative services and products that have a high impact on the socio-economic wellbeing of the customers and on the environment. These services include agriculture value addition, water purification and e-mobility.

Equatorial Power is present in DRC, Rwanda and Uganda, has so far installed 1 MWP in 6 sites achieving 6000 connections and impacting over 30,000 people, and aims to provide access to productive electricity and clean water to a million people in the next five years.



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