Pay-as-you-go solar is lighting up the lives of Ghana's micro-entrepreneurs

Demand for electricity in Ghana is ever-growing but the grid can be unreliable. Renewable energy providers such as PEG are helping fill the gaps

Micro-entrepreneurs and their families are benefiting from clean, affordable renewable energy, thanks to Oikocredit partner, PEG. Photograph: Capture Ghana

Kawien Ziedses des Plantes, deputy director, social performance & capacity building, Oikocredit

Sixty years ago, Ghana was the first west African country to become independent, inspiring others to follow suit. Today, with a rapidly growing economy, it is the fertile ground of a new movement in Africa - the adoption of solar energy. In June 2017, Kawien Ziedses des Plantes, deputy director, social performance and capacity building at international social impact investor and co-operative Oikocredit, caught a glimpse of what this means for many Ghanaians - particularly micro-entrepreneurs who, with no assets, stable jobs or credit histories, have limited access to credit, goods and services.

The traffic on the dual carriageway creeps forward slowly in the damp morning heat. It's almost 8am and the tropical downpour has ceased as abruptly as it started, although not without causing some disruption. A bus has slid off the tarmac into the thick, red mud. Two goats stand on its roof, seemingly unfazed. When the traffic finally picks up, the countryside whizzes by and signs of the expanding economy surround our Oikocredit minibus. New buildings and warehouses can be seen everywhere, their exteriors still waiting for coats of paint. In the distance loom large, industrial storage tanks. We overtake tankers and lorries carrying containers to and from the port city of Tema and, in turn, we are overtaken by motorcycles and luxury cars. We pass under a giant billboard which reads: "Nothing can stop you. The only way is up." For those using PEGs products to get around the high costs and unreliability of electricity from the national grid, this slogan rings true.

En route to meet some of his end customers, I chat with Prosper, an area sales manager for PEG who is accompanying us on this trip. PEG is social enterprise partner and investee of Oikocredit. An asset financing company headquartered in Accra, PEG provides solar energy products such as M-Kopa III™ – a solar home system that provides renewable energy to small domestic appliances such as televisions, radios and mobile phones. The company has around 250 employees and aims to provide employment to 1,000 people in each west African country in which it is expanding.

Meeting Ghana's growing demand for electricity

With Ghana's economic growth, demand for electricity more than doubled over the past decade and the country's large hydropower station struggles to keep up. Lower water tables, which many scientists believe is down to climate change, coupled with population growth have strained the power station's capacity. Frequent power outages are common and this is bad for the business of the country's many micro-entrepreneurs, roadside vendors and restaurant owners. Meat, milk and vegetables spoil during the power cuts and when the sun sets at around 6.30pm, these power cuts not only make it difficult for micro-entrepreneurs to continue working but they also keep customers away from small hospitality businesses such as bars and cafés.

A vendor and PEG customer smiles in her solar-powered shop. Photograph: Barrak CAPTURE/Capture Ghana

We arrive at our first destination where Comfort, a street vendor, shows us around her small, roadside stall. Half her wares are spread out on a table outside: fresh fruit and vegetables, dried fish in large bowls, and colourful food tins stacked in small pyramids. Soaps, flour, sweets and more can be found in the storage space behind her stall. She says that solar energy is cheaper and more reliable than using the grid. And she's keen to incorporate it in other areas of her business. Before we leave, she points to a fridge filled with lukewarm soft drinks: "When can I get solar power for my fridge, Prosper?" she says.

Pay-as-you-go solar power

Enoch (left), a PEG sales representative, explains the workings of PEG's various solar-powered products to a customer.
Photograph: Barrak_CAPTURE/Capture Ghana

"We offer our customers a number of product bundles: single solar lamp units; a lamp with a TV, or a lamp with a mobile. They pay a deposit and then pay-as-they-go, taking between 12 and 18 months to see off the balance [and own the products]. Payments can be made daily, weekly or monthly," says Prosper.

It's this clever pay-as-you-go system which allows PEG's customers to spread their costs by paying for solar services over time. While PEG's solar and financial technologies are innovative, their high level of customer service is equally important. Prosper says: "The most important thing is to provide good customer service and technological assistance. So, my customers can reach me any time and try out the demo on my phone."

A dusty ride off the main road through cassava fields brings us to our next appointment. We zigzag between the adobe-walled houses of a sleepy village, avoiding the free-roaming goats and sheep who graze on local vegetation. Ofori's small café lines one side of the village square. It hosts two large shade trees and a few benches. A roof of corrugated iron sheets and unfinished walls form a small terrace with space to seat 12. Plastic chairs are set up facing a television. Small solar panels and a satellite dish on his roof catch my eye. Ofori has purchased PEG's solar panel light and television bundle and he also pays for electricity from the grid.

"People come here to watch the Black Stars games," he explains. "When there is a power cut on the main grid we can't watch the game, but off-grid solar power never cuts out." Just two days ago, using PEG's solar power at Ofori's café, villagers watched the Ghanaian national football squad win a qualifying match uninterrupted.

Demand for electricity in Ghana has grown exponentially, but can this demand be met in an environmentally and socially responsible way? Affordable solar power could provide the answer. Solar certainly meets the needs of the many micro-entrepreneurs in Africa. And the pay-as-you go model makes rooftop solar technology more accessible and affordable, particularly for low-income and remote communities running roadside stalls and micro businesses.

Customers of PEG Ghana who benefit from clean, affordable solar power. Photography: Capture Ghana.

PEG's award-winning innovative approach is a tribute both to the company's perseverance and their customers' belief in the technology, customer service and pay-as-you go model. But such technological innovations need the backing of patient investors.

According to the World Bank, more of the poorest communities are gaining access to electricity at a faster rate than ever before. However, the share of renewable energy versus traditional forms of energy is not growing at the same speed. If this is to change, investing in social impact investors like Oikocredit, who support businesses that achieve combined financial, social and environmental returns, may become an attractive option to the wider investment community.

Established in 1975, Oikocredit invests in more than 800 social enterprise partners across Africa, Asia, Latin America and central and eastern Europe. We prioritise inclusive finance, agriculture and renewable energy sectors to empower the most disadvantaged communities in the world.

Oikocredit's mission and associated social performance measurements align with many of the United Nation's 17 sustainable development goals (SDGs) – particularly SDGs 1 (no poverty), 2 (no hunger), 5 (gender equality), 7 (affordable energy) and 8 (decent work and economic growth).

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*Taken from annual reports and accounts.

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