

THE POWER OF INNOVATION

By doing it differently Solar Nigeria has revolutionized off-grid power

In a country where the sun shines and many people live in remote regions, off-grid energy seemed the obvious way to provide power in Nigeria. But wasn't.

With the UKaid-funded Solar Nigeria Programme, what should have been obvious has finally become reality. Millions more Nigerians have reliable power and light, and Solar Nigeria will serve as the model to bring off-grid energy to a lot more under-served regions in the future.

Over the past six years, UKaid's Solar Nigeria has produced some outstanding achievements that improve lives, social services, and the business environment in rural, remote, and conflict-affected areas across Lagos, Kaduna and Borno.

But the real importance of Solar Nigeria is that it has tested, refined and proven an innovative approach to supplying solar power - reliably, affordably and sustainably: it nurtured a market.

Deep insights on small-scale distribution

In Nigeria, there was virtually no market for off-grid solar. Many visible projects had failed using conventional approaches where projects were selected according to vested interests using public funds in a government culture wary of private markets. The default approach in Nigeria and many countries was to try to change public policy and regulation first.

Probably the greatest obstacle to widespread consumer uptake was the upfront capital cost for solar equipment that was unaffordable to many households and businesses. It has long been known that energy users could save money using solar if it was made available by a trusted, reliable provider who could arrange for initial capital cost to be paid in small cash payments over time - the key to making solar affordable.

Delivered **Nigeria's largest ever off-grid solar project**, working with the Lagos State Electricity Board



175 schools
48 health facilities
got solar power

More than
5 million Nigerians
now benefit from solar light and
power

with

1 million
solar lamps and solar home
systems provided on full
commercial terms

Solar Nigeria enabled **Nigeria's first 1
1MWp** solar system



So Solar Nigeria did it differently. The programme started with the most doable, effective projects on the theory that showing off-grid solar will work would set the groundwork for a thriving market that would continue to grow.

Start with the market

Solar Nigeria attracted proven capable off-grid solar providers from across the region, and nurtured the strongest Nigerian start-ups. They were the pioneer entrepreneurs who were prepared to establish and grow at scale in Nigeria, encouraged by guarantees and other support from Solar Nigeria.

Those credible pioneer providers established strong relationships with financiers and investors in order to offer financing for consumers to buy equipment at commercial rates but with manageable repayment terms. That triggered a fast-moving market that spurred providers and investors to expand.

Parallel social projects, with solar for schools and medical facilities offered visible demonstrations of reduced energy costs and improved health and educational outcomes. Small businesses, too, enjoyed cheaper more reliable power from off-grid solar in settings like Nigeria's vast web of urban market stalls. With such compelling evidence that market-driven solar worked, it took a champion to point to the success and draw the implications for government policy. The enthusiasm of Damilola Ogunbiyi, as she rose from her role in the Lagos state government to the federal office of the vice-president, much accelerated the Nigerian government's shift of approach and policy in favour of off-grid solar. That policy shift, in turn encouraged the private sector, and once the pioneer providers had established a market, more solar providers entered, banks became eager to provide finance and there was even greater momentum to influence changes in policy and regulation.



Epe Senior Grammar School, Lagos

As the countdown is on to COP26, the world needs clear evidence of what works in the battle against climate change and the quest to bring reliable sources of power to those who don't have it, without damaging the environment.

The Solar Nigeria Programme makes an inspiring example.

'Solar Nigeria produced remarkable results,' according to Emmanuel Taiwo, Climate and Environment Adviser at the UK Foreign Commonwealth and Development Office who oversaw the project.

"It has won huge praise across the UK and donor governments for doing what we all strive to with aid money – it produced immediate beneficial results for people, business and the environment. And it established a solid basis to keep expanding Nigeria's offgrid solar market. It offers an excellent model for future initiatives on solar."

Solar Nigeria Programme

Funded by UKaid - 2014-2020

£27 million*

Delivered by Adam Smith International

Funded by



*ASI implemented one contract under the Solar Nigeria programme. Solar Nigeria's total value is £66m

