

Subsidy cuts and increased electricity tariff driving renewable energy uptake in Nigeria

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For several weeks Nurudeen Aribisala's wife consistently advised that they get solar power for their home in Lagos, but he did not pay much attention. Last month, the transformer powering their area blew and electricity has not been restored since — this was his cue to purchase solar technology for his household.

"Power is infrequent and I thought solar is good because it'll save money on fuel and there is no noise. When there is no light and the room becomes hot, my baby cries hard," the new mother explained why he mounted consistent pressure to buy solar.

When situations like this arise in the past, his medium generator usually served as the go-to back up but not anymore, as the cost of fuelling it has increased astronomically in the past two months and the family is trying to spend only on priorities as the cost of living crisis in Nigeria balloons.

During President Tinubu's inauguration speech on May 29, he went offscript to announce that Nigeria's fuel subsidy, which helps keep the price of petroleum cheap for the people, had been removed as part of a new set of fiscal policies instituted to repair the country's freefalling economy. As a result, petrol price, previously 185 naira (\$0.24), has jumped to 617 naira (\$0.81).

Similarly, Nigeria's fixed rates have been upended to allow the currency's value against the dollar be determined by market demand and supply; this has led to a record plummet of the currency, affecting industrial sectors as it crashes. The electricity distribution companies in Nigeria have increased their tariff by 40% and this has spelled further difficulties for Nigerians who are impacted by economic downturns.

'It is not affordable'

At the solar shop, Aribisala opted for a 500 watts inverter, 40amps battery and 80 watts panel which the engineer told him would power five bulbs, a fan and charge their gadgets. The total package is priced at 130,000 naira (\$171.39) but because he could not pay all costs upfront, he asked to pay installmentally. So he will have to pay 172,000 naira (\$226.76), that is 40,000 naira (\$52.73) as first payment then 22,000 (\$29.00) to be paid monthly for six months.

"It is not affordable but it is essential because I am unable to work without electricity. I do not have any choice. So we planned it out and actualized it," said Aribisala, a university administrator and writer who needed constant power for work.

Nigerians suffer a volatile power supply, which causes between 7 to 10 billion Naira loss yearly and forces businesses and households to find alternative sources of energy, the most popular option being petrol generators but with the nearly-three times increase in cost of fuel, citizens are pushed to a tight corner.

According to the World Bank, over 22 million gasoline generators in Nigeria power about 26% of all households and 30% of micro, small, and medium enterprises, and their net capacity is eight times more than the national grid. As daily petrol sale reduces, Nigerians are turning to renewable technology, which many did not adopt previously because of the expensive capital involved at the initial stage.

Renewable technology like solar energy seems like the best bet but its upfront cost is unaffordable to many households who are more preoccupied in their struggle to get their basic needs met.

Increased adoption

Tosin Ayodele, a 26-year-old resident of Lagos spends a quarter of his monthly earnings on powering his generator because he lives in an area that endure extended power cuts and low currents.

But after seeing the subsidy cuts and energy tariff increase was announced, he knew he had to take decisive action. Although not convenient, he got an inverter for 451,000 naira (\$592.84) and two solar panels for 80,000 naira (\$105.16) including the installation fee.

"I took the money out of my savings because I would be spending more than I used to spend on fuel regardless," he said. My pocket is still bleeding because of it but I think it is a worthy investment."

Segun Adaju, president of the renewable energy association of Nigeria said since the subsidy cuts, they have seen a sharp increase in customer interest to replace existing energy production types.

"Some of the customers that we've engaged with over the years but complained that adopting solar energy is too expensive have returned with keen interest," he said.

He added that low-income households, in urban and rural areas, have also been adopting solar power because more solar companies are adopting a Pay-as-you-go payment method.

"With a minimal down payment now, you can access those technologies and you can complete the payment over a period of 2-3 years," Adaju said. "Overall, solar energy is cheaper than any other energy source in the long run."

A new energy

However, more Nigerians, who are looking to keep using their generators have found a way to remodify their petrol generators to be powered by liquefied petroleum gas [LPG]. Ridwan Ganiyu, an Ilorin-based engineer said this is possible through a hybrid carburetor which allows the generator to function with either petrol and LPG. Also car owners are also remodeling their cars to run on compressed natural gas [CNG]

The hybrid carburetor used to be 9000 naira but due to an increase in demand, it now sells between 25,000 naira (\$32.86) and 50,000 naira (\$65.73).

“People do it because it is cheap, compared to petrol. one kilogram of LPG can last you for 3-4 hours but one litre of petrol can only last you for one hour,” he said. “Gas sells for 600 naira (\$0.79) per kilogram, while petrol is 515 naira (\$0.68) per litre, so you can see.”

But there are concerns around its viability and safety as more people adopt it. James Ogunleye, managing director of Carbon Limits Nigeria, a Lagos-based energy consultant company, said it is a cost-effective medium that can save money for households and businesses.

“Gas is something we have a lot in this country, so why not?” he asked. “We should use it. but we need to do more in certain safety standards compliance so that we don’t put ourselves in trouble.”

Back in Lagos, Aribisala is excited about the prospect of his solar power and might purchase more panels and batteries to increase its strength in the future.

“So far, we have enjoyed the work it is doing for us. We can charge our gadgets and use the fan when the heat becomes unbearable.”

Pelumi Salako is a Nigerian writer and journalist.