

Electricity for all? Off grid but On track

Nigeria's power privatisation programme was one of the most ambitious Africa had seen and succeeded the relatively successful reforms in the country's telecom sector. The common perception now though is that privatisation in the power sector has not met expectations, partly because the oligopolistic and high stakes nature of the sector may have attracted investors whose priority was not necessarily to turn the sector around.

Is Corruption Hindering Electricity Supply?

A SERAP report published in August 2017 identified corruption as the main reason why the sector is not progressing at the expected pace. According to the report, a staggering Naira 11 trillion has been lost to corrupt practices in the sector since 1999. In the last four years alone, bail outs and guarantees to the sector have totalled over N1200 billion (The N701 billion Payment Assurance Guarantee, the N300 billion Power and Aviation Intervention Facility and the N213 billion Nigeria Electricity Market Stabilisation Facility).

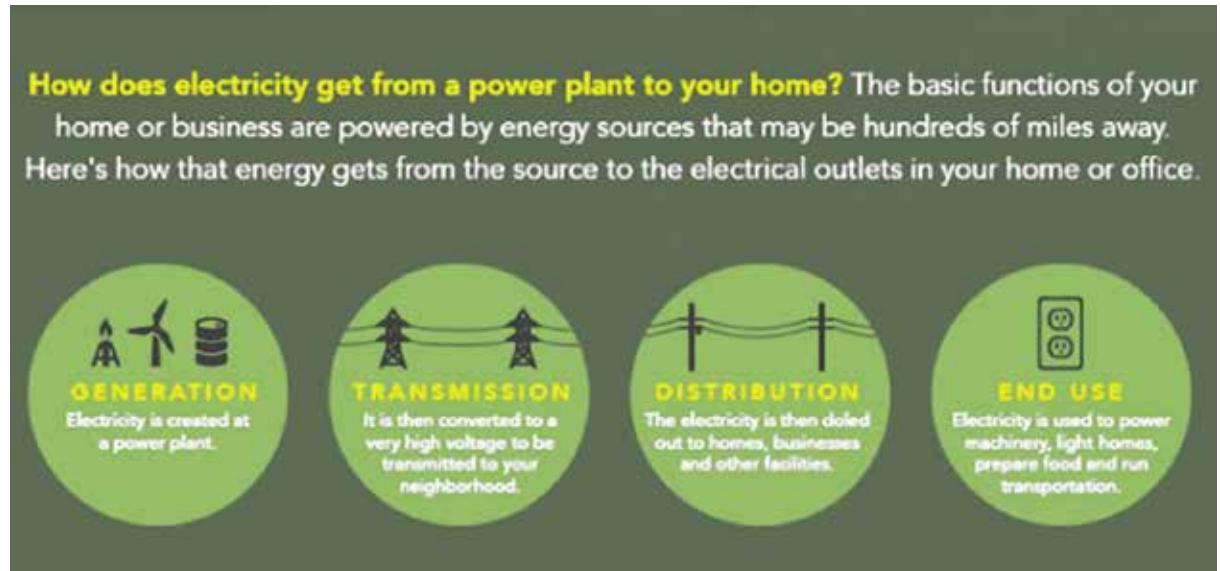
Given the politically connected nature of the sector and overall issues of weak governance in developing countries like Nigeria, standard anti-corruption strategies or even renationalisation are unlikely to work. A SOAS Anti-Corruption Evidence research consortium ([ACE](#)) research points to a two-fold policy solution. One is long term; addressing the structural problems of generation and transmission infrastructure and improving revenue collection by distribution companies. But the immediate solution is to increase generation and supply, without running into political dead-ends or requiring expensive infrastructure.

The ACE approach to fighting corruption recognises that reducing corruption is only likely to be possible if the overall strategy succeeds in aligning the interests and capabilities of a sufficient number of powerful and productive organizations at the sectoral level. In Nigeria's electricity industry, such an alignment of interests, policy conversations is likely to involve small and medium enterprises (SMEs) that are potentially productive and likely to play a critical role in sustaining growth and employment in Nigeria.

Where Do Small and Medium Scale Enterprises Stand?

SMEs are vital enablers of growth in most developing economies. In Nigeria however, they seem to have been left stranded by dysfunctions in the power sector. They are typically forced to access power through informal and sometimes illegal means. For instance, some SMEs may be involved in using smuggled diesel for powering generators, or in accessing distribution lines illegally. A recent article published in Nature Sustainability calculates that the "mean net cost of electricity" from diesel generators in Nigeria is USD 1.6 billion per year.

ACE consortium's research suggests that SMEs do not want to operate in illicit markets and would be willing to pay for regular, reliable, access. While solutions like 'pay-as-you-go' power bought from large generator-owners are popular in SME manufacturing clusters in Abia and Anambra and may appear to be innovations that solve market failures, they are in reality sub-optimal alternatives that provide neither certainty nor efficiency. Some of the SME owners pay their local distribution company and generator operators, while also owning additional back-up



generators.

Research by the Overseas Development Institute in the UK on energy costs of SMEs has shown that Nigerian SMEs who use generators have higher unit costs than SMEs from other countries in general. This is not surprising, but it also means the scale of problems are much higher in the country. The solution is not just about providing electricity; policy makers need to realise that market players have long been used to devising their own ad hoc solutions. Hence, policies has to be devised in a way that takes into account possibly higher negotiating costs with such manufacturers.

Are Some Policies Actually Working?

Off-grid solutions, where SMEs are important beneficiaries, have received a recent policy push and some ventures have started successfully. For instance, there are policies in Lagos and Kano states and from the Federal Government of Nigeria that now allow businesses to access power directly from generating companies through the eligible customer regulation. Although these policies are advantageous to businesses, it is important to realise that solutions in the electricity sector cannot just be technocratic. The sector is inherently political in developing countries, and Nigeria is no exception. This is because of its high capital requirements and risks for investors, and the huge benefits of cheap electricity for economic development can justify public investments to provide electricity.

Research from Anti-Corruption Evidence Research Consortium (ACE) on Nigeria and other countries has shown that given these characteristics of the electricity sector, and the limited public investments in developing countries, those willing to invest are politically connected entrepreneurs who are better able to insulate themselves from these risks. This often means being able to get away with delivering poor results.

Equally for consumers, the price and quality of electricity supply is a contentious and often political issue. ACE research suggests mistrust between customers and electricity suppliers is high in some potentially productive areas. Therefore, any contractual arrangement between the two has to include institutional mechanisms that includes

incentives to make the relationship mutually productive as well as check free riding on either side. The fact that some manufacturers already have arrangements where they share payments to those hiring out generators is an indication of willingness to pay for access to non-grid power and to participate in a collective mechanism that guarantees this access.

Both the finance and technology are now available in Nigeria for 20 to 30 megawatt off-grid embedded plants, and nowhere is this seen to be operating more successfully than around Lagos where private financiers and technology providers like Viathan are successfully generating electricity through this means. Despite the availability of technology, financing is often not available in undercapitalised areas of the country. Therefore, there is need for a supporting institutional mechanism that helps to reduce transaction costs by effectively co-ordinating, enforcing and mediating between those in clusters and suppliers.

Conclusion

The idea for improving sustainable power supply is to form a coalition whose incentives will be aligned with increasing electricity generation and willingness to pay, thereby reducing leakages, and side-stepping the inefficient grid for the time being. Devising off-grid solutions for SME consumers should be prioritised to help catalyse a virtuous cycle for Nigerian manufacturing which is an essential precondition for more ambitious reforms of the electricity sector. A push for renewables-based mini and micro grid electricity supply could equally bring relief to many residential consumers. However all these solutions must in the end be backed by a long-term commitment to improve grid-based solutions that provide electricity for all.

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Nextier Power is a consulting firm that provides policy advisory, investment advisory, and support services to the electricity supply industry. The firm aims to use this weekly publication to educate Nigerians on the intricacies of the Nigeria electricity supply industry on the assumption that a more informed public would advocate for the right policies and programmes which, in turn, would lead to a robust market that delivers the electricity needs of Nigerians. This column will cover everything from the basics of the industry to the more intricate, sometimes, complex policies and programmes.