
Off-grid solutions becoming an important consideration in the power sector

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South Africa is currently one of the most attractive destinations for power project developers, sponsors and energy players seeking investment opportunities to support and grow power projects. One of the key drivers for any power sector player remains an enabling environment with long term sustainability and commitment to enhance and support growth.

The country successfully implemented the Renewable Energy Independent Power Procurement Programme (REIPPP), which is currently being expanded through a further ministerial determination of 6 300MWs, followed by a baseload coal programme, a small IPP programme, co-generation and the much anticipated gas to power programme (still to be launched).

However, the development of captive power or off-grid renewable solutions remains an important consideration towards sustainable power and industrial growth. South Africa recorded limited investment in imbedded power to date, however, more recently, industrial players have started to investigate and evaluate opportunities towards self-sustainable power solutions on the back of increased electricity tariffs. The National Energy Regulator of South Africa (Nersa) is currently reviewing legislation to enhance the development of captive power solutions which should support and fast track investment. In many power sector discussions, embedded generation options are often referred to as “disruptive technologies” that could change the electricity landscape of a country through a decentralised diversified model.

With power shortages hampering economic and social development across much of sub-Saharan Africa, new and existing technologies are coming together to allow alternative off-grid solutions to complement the conventional grid system in getting power to the largest number of people quickly.

So much of Africa is remote and rural, the wait for power from the grid can still be decades away. But the same is not true of mobile phone coverage. Most Africans live within the coverage of a mobile phone mast, and with it comes the ability to communicate and to use ‘airtime’ as an alternative means of payment for a number of things, including access to power at the household level. Combining solar power solutions with existing telecommunications infrastructure and technology, linked to the banking system, allows “local” solutions to be one of the quickest and perhaps more affordable in enabling the pay as you go concept for off-grid electricity to the home.

Business models for at home off grid supply have been in existence for some time, particularly in the USA, but this has developed into a complex hybrid solution in the sense that access to the grid is always there, and ability to take or supply into the grid (and pay or get paid for the energy consumed or supplied), in combination with favourable tax treatment has created a complex and competitive market for off-grid power solutions.

Africa differs fundamentally from the USA in the sense that off-grid in its truest sense needs to be just that and affordable down to very low disposable income households. So the cost

of the technology at its most basic (a few solar panels, a few light bulbs, a battery and phone charger) has to be reasonable, and be part of the overall budget a customer can afford, and if combined with the cost of a pay as you go or contract mobile phone, is something that should be capable of financing by commercial banks. Once payment histories are known, and hence default rates, banks should be able to lend on a portfolio basis to solar off-grid equipment suppliers, and allow leverage and hence significant growth into the off-grid industry.

At Standard Bank we continue to see potential in developing the continent and facilitating economic growth and we believe off-grid solutions can be bankable if the right partners are found. As these developments help businesses and economies to grow, they also indirectly support regional development. Off-grid can also be expanded into the retail market, where modular rooftop solar solutions can be rolled out to commercial neighbourhoods, either individually or as collectives.

The benefit of having a presence in 20 countries in Africa is that we are well positioned to use our network to facilitate a number of off-grid solutions and have the experience to create the optimal funding structures that work on the ground. Our extensive branch network could also be used to help drive moves to a mobile phone driven power solution, for example.

These solutions can be used to target African countries with limited power rollout. We just need to get more creative with how we fund these opportunities as the bottom line is: Africa needs power.

Certainly the successes achieved in South Africa's renewable programme can be replicated across Africa, where opportunities abound for solar, wind, hydro and gas projects, but where only 20% of people are connected to power grids.

There is little doubt off-grid solutions and renewables are set to become a much bigger source of supply in the future, and while off-grid was not a solution three years ago, it is fair to say it is inevitable now as technology and funding mechanisms become more accessible and applicable. Short-term challenges aside, Africa needs to focus on generating power solutions that will be sustainable well into the future. A better mix of power, which will include a raft of off-grid solutions, is the best possible outcome.

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Notes to Editors:

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