

3 trends energising Africa's power sectors

By [Paul Grotz](#)

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In a 2015 report, McKinsey estimated that if every country in Africa had to build to meet their current electricity demand, the region would require about \$490bn of capital for new generating capacity - and a further \$345bn for transmission and distribution infrastructure.



Paul Grotz

The good news then is, that despite the commodity prices challenges over the last seven to eight years that led to more subdued growth in a number of Africa's resource intense economies, there is still significant investor interest within the African power sectors.

Three major trends energising continued investment into Africa's power sectors have emerged, including:

1. Carbon reduction targets solidify interest in cleaner energy sources

Clean coal will remain a key base load power source for a number of countries across sub-Saharan Africa, as the reality is that governments within these countries are faced with the trilemma of providing affordable, decarbonised and secure electricity. That said, there is significant opportunity across domestic markets in Africa to diversify the energy mixes with the introduction of an alternative source.

Renewables, for instance, continue to play a vital role in the power mix for most African countries. Renewable power plants hold great opportunities for communities and/or industrial activities, alike, which may be geographically dispersed and not have access to the national power grid – as these plants can be deployed more quickly and close to the source of demand through microgeneration.

In fact, we are seeing power producers with an appetite for owner-managed micro-grids in decentralised market models gaining popularity. And, I think microgeneration has a key role to play in Africa, given there are vast rural areas that are geographically dispersed, and underdeveloped, and therefore there may not be an existing power grid to tap into. It also avoids the need for investment in large transmission infrastructure.

The future outlook for renewable power generation across Africa therefore looks very bright.

2. Gas-to-power potential in Africa is ballooning

Over-and-above renewables, we are still seeing investor interest in other resource power generating technology options in Africa, especially gas, which is still less carbon intense than coal.

Interest in gas is especially gaining momentum with the recent finds in southern Africa - where gas-to-power offers a suitable base-load resource that can supplement coal-fired power in the medium to long-term. And, if the procurement contracts are properly structured, this offers immense opportunities to shift the balance between State versus investor priorities.

3. Making connections with distribution and transmission infrastructure

Growing investment in transmission and distribution networks is the third notable trend, as they are equally critical components to electrifying Africa.

Closely link to this and as many economies in Africa look to maximise their gains whilst prioritising their public spending, regional integration is increasingly dominating the agendas of African policymakers and donor finance institutions. The focus is on developing infrastructure that strengthens the existing power pools and enables cross-border or intra-continental power trading.

However, it should be noted that an interconnected power pool is a complex system that requires careful planning and development. By its very definition, a power pool involves the connection of a number of networks in a region that in the past, may have been operated in isolation.

The Southern African Power Pool (SAPP) is a prime example as it is currently driving a number of transmission interconnector projects across the region. The aim with these projects is to link or strengthen power interconnections between various countries in the SADC region including Mozambique, South Africa, Zimbabwe, Botswana, Swaziland, Lesotho, Namibia, Malawi, Tanzania and Zambia, Angola and the Democratic Republic of Congo (DRC). Power pools offer those countries with a power deficit, the facility to import power, and those with excess power various options for exporting their surplus energy. Power pools facilitate trade of energy and also result in cost-efficiencies.

Going forward, and as Africa's power sectors transition through various planning and roll-out phases, there is undoubtedly a burgeoning of opportunities on the continent. Improving investor confidence even further, however, will require certainty around State-led resource programmes, prioritisation of these programmes, policy stability and that investors have an inherent understanding of local market issues and operating environments.

ABOUT THE AUTHOR

Paul Grota is the director: industrial, power & project Medupi, WSP, Power, Africa

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