Energy options to address Africa's electricity challenges

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Recent pan-African M&A transactions have highlighted the different energy tariffs and structures across the continent. This has prompted us to closer examine the differences in the market and the resulting variances in competitiveness. From Kenya to Nigeria, to South Africa and beyond, these markets have matured and now provide a broader array of energy options to address Africa's ongoing electricity challenges.

The evolution of utility scale renewable energy in sub-Saharan Africa is best showcased through the lens of South Africa's Renewable Independent Power Producer Procurement Programme (REIPPPP). The broadly successful government auction, which recently kicked off its seventh round (known as Bid Window 6 – there was a Bid Window 3.5) this year, has been responsible for procuring over 9GW of energy to date (excluding Bid Window 6). This has anchored the creation of numerous independent power producers (IPPs) and has facilitated the entry of many international players into the market, many of whom are now operating across the continent.

These large utility-scale projects feed directly into the grid through long-term (20-year) offtake agreements with the South African national utility, Eskom, whose obligations under the Power Purchase Agreements (PPAs) are guaranteed by the South African government. These highly competitive auctions have led to a "race to the bottom" in terms of pricing, and while a win for the consumer, it has presented a challenge for preferred bidder projects under Bid Window 5, whereby the demand for MW was heavily oversubscribed for both solar and wind. The competitiveness, coupled with the increase in construction, commodity and shipping costs between bid date and now, has presented significant return challenges to the selected IPPs. Consequently, many of these projects are still to reach financial close. Despite the ongoing and critical demand for energy, Bid Window 6 bids are expected to be (marginally) less oversubscribed and have more conservative tariff pricing (for various reasons).

What is also evident from the SA model is that the government rounds alone have not managed to address the electricity crisis. Loadshedding continues (up to stage 6 has been implemented recently), and there is a drastic and constant undersupply of power. Despite Bid Window 6 capacity allocation being raised from 2.6GW to 4.2GW (September 2022) and the Risk Mitigation IPP Procurement Programme (where most preferred bidders have also yet to


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reach financial close), estimated power shortfalls are to remain at more than ~6GW. This shortfall is also expected to increase in the near-term, as existing coal-fired power plants' energy availability factors continue to decline, and/or reach their end of life.

The not so recent electricity emergency and the ongoing chronic power outages have led to a need for alternative energy options. This opened the floodgates for private investment in new generation capacity via corporate PPAs or Commercial and Industrial (C&I) entities. The limit on the requirement for a generation licence has been lifted from 1MW to 100MW (which limit is in the process of being eradicated), and multiple 'new' business models have been created to deliver reliable power.

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The end result is that C&I growth across Africa is booming, allowing nations and companies to effectively leapfrog the burden of traditional grid development, landing in an increasingly decentralised system. C&I investment has a continued growth forecast over the next decade, as investors seek consistent returns from decarbonised generation sources. Although capital costs for smaller C&I remain comparatively high (versus larger utility projects) due to fewer economies of scale, innovative captive power business models are providing attractive investment opportunities. Moreover, innovative financing solutions and investment platforms are allowing smaller developers and IPPs access to cheaper collectivised capital (something RMB has been successfully facilitating; one recent example combining four previously independent BEE entities to access greater capital pools), with maturing markets and increasing M&A activity generally helping to accelerate energy expansion across Africa.

The diversification away from government offtake into captive power markets can be widely seen across Africa's mines, with many mining companies choosing to decarbonise their operations through low-carbon captive power solutions. In markets like SA, where the national transmission infrastructure is reliable and extensive, the option of 'wheeling' exists too. 'Wheeling' is when the source of private generation need not be located where the load is required and, at a fee, can be transmitted to the offtaker using Eskom's transmission network. Whether the success of this model will filter down to a mass roll-out across less energy intensive industries is yet to be seen, but the move from Africa's consumer and retail space certainly indicates that it might.

The move has also highlighted a diversification away from traditional PPAs into more flexible business and payment models. For example, modular solar assets available on short-term leases offer a relatively unique and fresh low-carbon approach to solving energy access. It provides both the ability to give access to services that need energy fast (i.e. NGOs / humanitarian aid sites), and scalability. The lease model allows for utility-scale deployment in countries with little to no power, and with slim options for financing more fixed energy models, all while doing this with a comparatively lower investor risk profile.

What is clear is that the African energy landscape is quickly evolving, as it tries to keep pace with the increasing power demands. At RMB, we believe in a just transition model where the scale-up in energy puts people and communities at the center of change; where technological advancements in low-carbon energy are developed alongside transition fuels, such as natural gas and hydrogen, and utilised to provide affordable and reliable power to the end consumer. The right to power, and to modernise and develop societies across Africa, cannot simply be based on idealism, but in practical steps that should enhance the socio-economic outlook of every African. RMB is committed to this vision and has the track record and expertise to support our clients and their customers along this journey.