

# Five energy investment opportunities to look out for

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The power and energy sector is a critical driver of African growth and development. So, to ensure that the industry reaches its full potential and addresses the energy needs of citizens, it is necessary for businesses and producers to keep up to date with a rapidly changing landscape.



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In this way, we have identified five key trends that will impact on the way that people live and work:

## 1. Coal power plants are becoming more difficult to finance as there is a greater move towards investment in low-carbon technologies and green energy

More countries and companies worldwide are focusing on going green and investing in low-carbon technologies – a move that became more pronounced following the commitments made at the COP 21 United Nations Climate Change Conference in late 2015.

The appetite for coal projects is declining globally, but the trend is particularly noticeable and growing in OECD (Organisation for Economic Cooperation and Development) member states. Many organisations headquartered in some of these countries have stopped investing in coal power plants, making public statements that they are focusing more intensively on low-carbon tech. China, too, is starting to make strides in the move away from its reliance on coal plants towards cleaner energy.

As low-carbon technologies and green energy continue to become more commonplace, financing coal power plants will become increasingly difficult. Similarly, the pool of potential suitors to acquire such assets in mergers and acquisitions (M&As) deals will also consequently shrink.

## 2. The growing appetite for renewable energy in emerging markets

What's more, there is a growing push from African countries such as Morocco, Senegal and South Africa, among others, to move from coal to other sources such as gas to fuel power plants.

The falling cost of technologies has made renewable energy solutions - particularly solar and wind – competitive. Similarly, the decreasing cost of gas (through the shale gas revolution in the USA) has made gas power plants more

competitive compared to clean coal technologies.

Connecting renewable energy onto the grid is becoming more affordable as Africa is blessed with abundant natural resources such as great solar irradiation and wind resources. For example, the best solar sites in the Northern Cape, for example, receive over 2,500Kwh/m<sup>2</sup> hours of sunshine every year, with average solar radiation levels of between 4.5 and 6.5 kWh/m<sup>2</sup> every day. To put things in perspective, this is over two and a half times what Germany – a world leader in solar energy – receives, indicating the immense potential to tap the continent's natural resources.

As such, it stands to reason that it is this dynamic that will ultimately impact on and alter the power landscape in Africa.

A critical part of the uptake of renewable energy is the use of an auction tariff regime as opposed to a feed-in tariff. South Africa already has such a system in place, after studying the best-of-breed practices in other markets globally. The move has resulted in tariffs falling, which is beneficial to consumers. There are similar initiatives in many other markets globally, including in Africa.

### **3. The rise of battery storage**

There has been massive investment in battery storage research and development by leading global companies such as Samsung, Tesla, Total and BYD in the past five years – and it is going to continue to gain momentum, particularly when coupled with solar photovoltaic plants for storage of energy.

What will drive the growth of battery storage further is that the costs will drop substantially in the next three to five years.

### **4. The power of distributed generation and the rise of smaller grids**

It is well documented that African countries have endured challenges in the past with providing their citizens with electricity – more than 600 million people across the continent are still without power, illustrating that much still needs to be done in this space. It is my view that with the rise of trends like decentralised distributed generation, closing that gap will become more easily achievable.

Distributed generation has the ability to bring more citizens into the energy fold by building smaller power stations at specific load centres, rather than building bigger, centralised stations that need to transmit power long distance. This also assists in reducing transmission losses as power would not need to be evacuated over long distances. The introduction of multiple, smaller grids can substantially assist in transmitting power to where it is needed, bringing down the number of people without electricity.

There are huge opportunities in the decentralisation of renewable energy and businesses and countries that embrace the shift and invest in the space will yield good returns.

## 5. The long-term move towards integrated grids through increased investment in transmissions projects

In developed markets such as the US and Europe, grids are linked or integrated to evacuate power from a country with a surplus to one that has a deficit and is in need of power. This is not the case in Africa, where there are very distinct regional power pools – such as the northern, southern, eastern, western, and central power pools – with very little overlap and integration between them.

Although investment in transmission projects to link grids is slowly increasing, with many examples of transmission projects in countries such as Ethiopia, Kenya and Mozambique, it is a gradual development and an expensive exercise. It is for this reason that growth in this area will continue to be slow and developments will only be visible over the next decade or even longer. However, as transmissions projects serve as a precursor to power generation, investment in this space is a necessity and, as such, will continue to occur.

The large supply-demand gap in power on the continent means that a large number of power projects being continue to be developed in the region. The political and economic climate has steadily improved over the last two decades or longer, making Africa a strong investment case for international developers.

Despite the frustration of long lead times associated with developing infrastructure projects, on a risk-return adjusted basis, Africa still boasts far better returns than developed markets. Projects are generally well structured making the default rate on projects almost negligible. With its abundant natural resources (solar radiation, wind, hydro and biomass potential, gas finds, amongst others), the energy landscape is changing – Africa will continue to be a compelling investment case.

### ABOUT THE AUTHOR

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