BIZCOMMUNITY

Covid-19 crisis highlights the need for renewable energy systems and a bigger role for renewables

Covid-19 has led to a global decline in electricity demand as commercial and industrial activity slows and people work from home. In South Africa, for example, electricity demand reduced by as much as 7,500MW on average in March and April - the height of the national lockdown. In response, power stations were taken out of service to keep the system stable.



Image: Getty/Gallo

However, demand is recovering in most African states as economies are reopened. Considering that much of the continent entered the crisis with a shortfall of energy supply, governments will need to procure more power in the months ahead. The fastest and most cost-effective way to address the supply gap is through more flexible technologies – such as renewable power projects – meaning the crisis may prompt African nations to deploy renewables at a much faster rate than before.

"Given that renewables are currently the most economically viable source of energy in most countries, we expect that the Covid-19 crisis will accelerate the pace at which these technologies are adopted on the continent, with hydro, wind and solar being the most attractive technologies," says Rentia van Tonder, head of power at Standard Bank.

Resilience of renewables

According to the International Energy Agency (IEA), renewables are the only energy source set for growth in demand in 2020, with solar and wind generators best placed to weather the storm due to cost competitiveness and the flexibility they offer – renewables are able to adjust more easily to fluctuations in demand.

"In this respect, the renewables segment is proving its resilience in the face of a crisis, and this further strengthens the case for economic recovery strategies to be underpinned by investments in renewable energy. Increasing the participation of renewable technologies in the energy mix will also ensure a more flexible system in general," she says.

While renewable energy units have historically only been able to provide an intermittent supply of electricity, they will become increasingly reliable thanks to rapid advancements in storage technologies, which are becoming more affordable. For the time being, there are no utility-scale battery storage facilities in Africa.

Decentralised green energy solutions

With electricity demand recovering, South Africa's Department of Mineral Resources and Energy recently announced that it is preparing bid documentation for the emergency procurement of 2,000MW of generation capacity. Given the time constraints, renewables may be best suited to plug the gap, and there are signs that these projects could include investments in storage technologies, which would further enhance the flexibility of these systems. Gas to power projects will also be able to provide dispatchable power solutions, complementing renewables.

Alongside launching bid window five of the Renewable Energy Independent Power Producer (REIPP) programme, finalising plans to enable the private sector and municipalities to secure their own power supplies would also be a welcome development in South Africa.

Decentralised green-energy solutions, which promote innovation as they are purpose-built and not connected to national grids, will continue to gain momentum as municipalities, mining houses and industrial firms seek to ensure cost certainty and reliability of supply. Some mining groups in Africa are even turning to hydrogen power to diversify their electricity mixes – an indication that the fledgling hydrogen economy is garnering more interest.

"In countries such as Nigeria – where the electricity self-generation market is 55% larger than the main grid – we expect the country will start to seriously consider pivoting to decentralised renewable solutions as oil subsidies near an end, so as to decrease the supply shortfall and better service the large and geographically fragmented population," Van Tonder says.

Green stimulus strategy

Meanwhile, African nations are well placed to implement a green stimulus strategy, as the European Union and other markets have done.

"This approach would increase the potential to secure additional green funding for the continent's Covid-19 recovery measures," says Greg Fyfe, head of energy & infrastructure finance at Standard Bank.

"With government finances under strain amid the pandemic, public-private partnerships will be essential for the energy infrastructure build programme to be a success. Banks will need to work closely with governments, development finance institutions and other financiers to mobilise funds and expertise," he says.

"Given the heightened focus on environmental, social and governance (ESG) factors as well as sustainability, we would also expect global investors and financiers to continue to pursue opportunities in the renewables space," he adds.