

What is being done to overcome South Africa's electricity crisis?

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South Africa's electricity crisis is at the heart of the country's economic woes

South Africa is facing a major electricity crisis that is having a seriously negative impact on the country's economic performance. Investment levels are near historic lows, anaemic growth rates are reducing fiscal space and for the first time in the country's post-1994 democratic era there are sustained increases in the country's rates of unemployment and poverty.

The electricity crisis is the result of government planning failures over a number of years, corruption linked to state-owned electricity utility Eskom, and the poor management of the country's transition to new energy technologies.

The only way to restore economic growth in South Africa is through the implementation of a number of interconnected interventions aimed at modernising and fundamentally restructuring the country's electricity sector. To succeed, this process requires a disciplined and forward-looking leadership, who are prepared to make tough-calls and work hard to see the successful implementation of the country's energy transition.

Interventions underway to overcome South Africa's electricity crisis

In July 2022, President Ramaphosa announced government's Energy Action Plan which included a number of specific interventions to overcome the country's electricity crisis. This plan is now being implemented and a dedicated Minister in the Presidency responsible for Electricity, Dr Kgosientsho Ramokgopa, was appointed in March 2023 to accelerate the implementation of the Energy Action Plan.

Through the implementation of this plan, steps are being taken to bring new electricity generation capacity on stream and to improve the performance of existing infrastructure. Skills and finance are being mobilised to assist Eskom to improve its performance and utility-scale investment in new wind and solar electricity generation capacity is being advanced through the Renewable Energy Independent Power Producer Programme (REIPPP).

Significantly, after some initial cutting of red tape in August 2021, as of December 2022 there has been a complete removal of licensing requirements on private investment in electricity generation. This has stimulated a large increase in investments in new generation projects, mainly solar, by mines, factories, farms and retail and commercial properties, who are now beginning to produce electricity for their own use and can potentially supply excess electricity that they produce back into the grid. For households, new tax incentives were announced in the country's 2023/24 Budget to incentivise household investment in solar systems.

The role of a restructured Eskom in solving the electricity crisis

Due to a combination of corruption, cost and time overruns in the building of new power stations and failures by the regulator to follow the legislated tariff methodology, Eskom is currently crippled by unsustainable debt.

As a result, it was announced in the 2023/24 Budget that a large part of Eskom's debt will now have to be taken over by the national government, on condition that Eskom is restructured to be fit for purpose for South Africa's evolving electricity landscape.

To be able to play a strategic role in the changing technology landscape, Eskom will need to be restructured into three entities, namely a Generation entity, a Transmission entity and a Distribution entity and a new emphasis will be required to accelerate investment in the country's national electricity transmission grid.

If Eskom is not restructured in this manner then, paradoxically, it and the state's strategic role in the economy will decline. Eskom will have to be restructured to play an effective role in guiding South Africa's just energy transition, or the entity will become weaker and less relevant over time.

Unlike during the period of highly centralised electricity generation, where the dominant technologies dictated that lower costs were to be achieved through large natural monopoly structures, the new more dispersed and distributed electricity generation technologies achieve lower costs through decentralised systems in which electricity from various sources can be supplied into a single state-owned national grid, on condition that the grid is properly maintained and developed to be fit for purpose.

In terms of the new electricity technologies, and the market structures and economics that they dictate, the national grid will connect and manage electricity supply and demand processes involving a wide range of public sector and private participants.

Post-restructuring, Eskom Generation will likely for some time continue to be the largest supplier of electricity in South Africa, although it will make economic sense to close end-of-life power stations once the end of loadshedding is in sight. There will be rapid growth in the number of privately-owned electricity generation entities. Electricity from these various sources will be supplied into a single state-owned national grid, to be managed, grown and modernised by the new National Transmission Company South Africa (NTC), which will initially fall under Eskom Holdings but will have its own independent board.

Throughout the world, countries have restructured their electricity sectors in this manner and their national grid companies play a highly strategic role in electricity supply and in the pursuit of public policy objectives, such as the extension of electrification to all areas in the country.

The State-owned NTC will serve as a neutral intermediary contracting with public and private entities generating electricity, as well as those running consumer-facing distribution systems, including Eskom's vertically separated Distribution entity, which will also operate with its own independent board from the end of this year.

Investment in new grid capacity is an urgent matter as the lack of such capacity is already proving to be a constraint on increased investment in new generation projects, particularly in certain parts of the country, such as the Northern Cape, Western Cape and Eastern Cape, which have high wind and solar potential.

Given Eskom's currently constrained financial and technical position, it may be necessary to accelerate this process through the introduction of a programme similar to the REIPPP, designed to facilitate private sector investment in the building and operating of new grid capacity under long-term contracts, with the state-owned transmission entity as the ultimate owner of such new grid infrastructure.

A united voice on South Africa's 'just' energy transition is needed

One of the reasons for South Africa's ongoing electricity crisis has been the lack of a common vision on the crucial role to be played by a well-managed energy transition to new technologies and new market structures, in resolving the crisis.

Backward looking tendencies, espousing the view that the crisis can be resolved by doing things as they have always been done in the past, often influenced by vested interests who for their own financial reasons are against technological change, have at times blocked necessary reforms and procurement process aimed at taking South Africa's energy transition forward.

Accelerating the energy transition is the quickest, lowest cost and lowest risk path to overcoming loadshedding and its crippling economic consequences. South Africa must accelerate the modernisation and transition of the country's energy system in order to keep the lights on and to give Eskom space to improve its performance and to restructure.

South Africa's unifying message should be that 'we will accelerate the energy transition and restructure Eskom to bring the lights back on'. This message will help to signal a much-needed programme of investment and job creation in new solar, wind, battery and grid capacity, driven by both the public and private sectors.

Furthermore, the design of South Africa's energy transition must develop alternative employment pathways for those in industries and regions that will be negatively affected by the technological shifts taking place globally. In this way South Africa will not only be able to 'bring the lights back on', but will also be able to shape an energy transition that is 'just' and that is specifically designed to take into account the interests of all.