

# South Africa's energy crisis has triggered lots of ideas: why most are wrong

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Since late last year South Africans have, once again, been subjected to power cuts by the power utility, Eskom. The need for what's called loadshedding - planned power outages - led to the recent [resignation of Eskom's chairperson](#) and a flurry of concern about the current and future reliability of electricity supply. It has also raised questions about the lack of progress in resolving [Eskom's financial and operational crises](#) since Cyril Ramaphosa became the country's president in early 2018.



Most proposed solutions don't address the systemic problems facing Eskom, in particular its parlous finances. Shutterstock

Besides the importance of electricity supply for ordinary people and businesses, the deluge of opinions and proposed solutions reflects a variety of corporate and political vested interests. One grouping is pushing for the removal of public enterprises minister [Pravin Gordhan](#). It argues that the recurrence of loadshedding demonstrates his failure to fix the power utility.

Another has blamed the country's energy minister, [Gwede Mantashe](#). A line of argument against him is that loadshedding would have been avoided if he'd commissioned new renewable energy projects and allowed greater decentralised electricity generation by large businesses.

These claims contain significant weaknesses. And most solutions that stem from them have a fatal flaw: they don't address the systemic problems facing Eskom, in particular its parlous finances.

The basic objective of charting a way forward for Eskom must be to ensure a reliable and affordable supply of electricity for households and firms. That must be done in a way that does not undermine the stability of public finances. And any costs must be spread as equitably as possible across individuals and businesses, minimising negative effects on other important social and economic objectives.

Finally, decisions about energy must contribute to reducing future carbon emissions, in line with international treaties. This needs to be done because it's essential for the planet, and because international regulation will make it increasingly expensive not to do so.

## **Like an unreliable car bought with debt**

Ending the power cuts has to begin with understanding Eskom's precarious financial position.

Imagine the following domestic analogy: you have bought a car with a bank loan and it starts breaking down regularly. But the dealership you bought it from has closed so it cannot be returned. You ask someone for advice and they tell you that the obvious solution is to buy a new smart car that uses less fuel and is more environmentally friendly. But you are still paying off the current car. So unless you have lots of extra money, or can borrow more from the bank, this "solution" is unhelpful.

This is where Eskom finds itself. It borrowed hundreds of billions of rand to build power stations that are [turning out to be unreliable](#). And people who argue that the solution is simply to commission new renewable energy projects are like the person who annoyingly says "just buy a new car". Since Eskom is almost bankrupt and government's finances are under huge pressure, "just buying new power" is not realistic.

But it is a vicious cycle: an unreliable car can harm a person's employment and income prospects, making it harder for them to afford repairs or an alternative. Similarly, unreliable electricity harms economic activity and therefore reduces the electricity revenue to Eskom and the tax revenue to the state.

Eskom has tried to avoid – or reduce – power cuts caused by failures of its main power plants by using [expensive options like gas turbines](#). This is a bit like taking a taxi when you are paying interest on a bank-financed car that you aren't using.

What about the idea that electricity users should be allowed to generate their own power? Well, that's a bit like saying that to reduce the impact of your car breakdowns on your employer you let them hire and pay someone else to do part of your job. That's great for your employer but not so great for you because it cuts your income – making it harder to service the vehicle debt or pay for repairs and alternatives.

Decentralised power supply will almost certainly be part of future energy systems. But without solving the systemic issues facing Eskom it could, in the short term, contribute to the power utility's death spiral. Encouraging electricity users to move to alternatives may take pressure off Eskom's operations, but it will have disastrous financial implications.

Big firms can afford to do this, and independent power companies will profit, but the resultant costs will fall on everyone else because Eskom has effectively borrowed on behalf of the country.

The car analogy should make it clear that "just procuring more power" could make Eskom's financial crisis much worse. Wind and solar power have a role but also particular limitations that are often given inadequate attention. They cannot be relied on to produce electricity whenever it is needed.

If renewable energy producers cannot guarantee supply when it is needed, then the cost of measures to compensate for that must be recognised as a cost of renewable energy.

The renewables lobby, like the nuclear and coal lobbies in the past, offers apparently easy solutions to South Africa's crisis. But it distracts attention from these basic principles – and many key questions that remain unanswered.

## Unanswered questions

South Africans need to know what maintenance is needed to get existing power stations operating reliably enough to avoid long-term loadshedding. In the short term the country's best option may be for predictable power cuts while the maintenance backlog is addressed.

Gas turbines can help to avoid loadshedding, reducing the impact on the economy, but they aggravate Eskom's financial problems. How can this tradeoff be optimised? Would new renewable energy really create space for the maintenance that is needed? And how are these decisions currently being made in the national interest?

Eskom has effectively borrowed on behalf of citizens, so any financial gaps will have to be plugged through electricity tariffs, higher taxes or painful cuts to public spending.

The fact that there is still lack of clarity on such fundamental issues after almost two years under a Ramaphosa presidency suggests that those appointed to advise on Eskom and turn it around have failed. That is why it is not helpful to focus on politicians.

The country is running out of time and money; it cannot afford another round of misguided advice and ineffective efforts.

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