

# Grid won't collapse, says Eskom

But the country needs to revamp its contingency plan and train people in the event it does go down

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**E**skom insists a grid collapse is “unlikely” and that it would take an “unforeseen and sudden sequence of events” to lead to a countrywide loss of supply.

Isabel Fick, Eskom’s general manager system operator, said at a webinar hosted by the utility: “A national blackout or grid collapse is an improbable scenario. We hope to allay fears of an ‘imminent grid collapse’, but we do prepare for every eventuality.”

In the improbable scenario of a grid collapse, it would take six to 14 days to restore power nationwide, she said.

Grid collapse refers to a total or partial interruption or suspension of electrical power supply, resulting in widespread outages. It could range from a province being without electricity to a countrywide blackout.

“The cost to bring South Africa back online cannot be quantified because it would depend on the time it would take to restore [the grid] and various other factors that cannot be predetermined,” said Fick.

The power utility Eskom is work-

ing hard to allay public fears of a grid collapse. Last week’s cold front slammed the country, which saw a return of higher levels of load-shedding after a period where power outages were mild.

As the country braces for a second cold front this week, Eskom warned it would implement higher stages of electricity rationing if needed, but it did not mean the country was closer to a national blackout.

Fick added that South Africa typically experiences higher volumes of power consumption during winter evenings, which explains the higher levels of load-shedding on cold nights.

“Higher load-shedding stages do not mean the grid is close to collapse. Several barriers are preventing a total blackout,” she said.

Despite Fick’s assertion, North-West University’s Jan de Kock, the president of the South African Institute of Electrical Engineers, said the country was not prepared for a grid collapse and needed to improve on its contingency plan by training technicians to restart the system, because the country has few people with experience in that field.

He added that Eskom’s so-called

black start capability was limited, which would be a catastrophe during a grid collapse.

A black start is the process of restoring an electric power station – or a part of an electric grid – to operation without relying on the external electric power transmission network to recover from a total or partial shutdown.

De Kock said the utility was running its power plants at capacity, which pushes them closer to the edge of a blackout, putting the system at risk of collapse. He added that an extreme set of events would cause the grid to collapse. Such events included extreme weather, human error, network disturbances and plant breakdowns.

“There are on average six units at every power station. We would have to lose effectively eight units of at least 600 megawatts each at the same time or in rapid succession,” De Kock said, adding that a total

grid collapse would not necessarily occur even if this happened.

“A lot of technical and system improvements have been made since 1974. There have been several occasions when we had multiple units failing, but the grid survived all of them,” he said.

Electricity Minister Kgosishtso Ramokgopa also expressed concern over the vulnerability of the electricity grid, especially with Koeberg power station’s units undergoing maintenance and potential delays in their life extension project. Eskom has sought to delay the end-of-life date for one unit to avoid both being offline simultaneously.

Ramokgopa said the electricity grid remains vulnerable and susceptible to plummeting availability of megawatts. Unit One of Koeberg is currently offline and Unit Two is expected to go offline in September.

Koeberg’s operating licence ends on 21 July 2024, after which both units must either be refurbished and relicensed or shut down.

Eskom has applied to the Nuclear Regulator (NRSA) to postpone Unit Two’s end-of-life date for a year because it was commissioned a year later than Unit One.

NRSA chairperson Vally Padayachee echoed Fick’s sentiments: “We are nowhere near a grid collapse despite going into winter.”

Padayachee also pointed out that Eskom has never, in its 100 years of operation, experienced a grid collapse. He added that the utility would not bend to politicians who may pressure it to lighten the power cuts as electioneering heats up next year, saying grid stability will always be Eskom’s priority.

This comes after reports by the Democratic Alliance that Eskom is lessening load-shedding as part of electioneering in favour of the ANC. Padayachee stressed a grid collapse would not happen now as the country grapples with an unpredictable power supply.

“We will, without fear and favour, protect the grid. The public must know this,” he said.

Despite an easing of South Africa’s rolling blackouts in June as a result of higher-than-expected power supply, July saw the reintroduction of severe cuts of up to eight hours a day. Many organisations and households are seeking to reduce their dependence on Eskom by investing in alternative sources of power.

On Monday, the Institute for Security Studies flagged the risk of nationwide communication blackout in the event of power grid collapse. It added that the communication sector was preparing itself for a blackout following the return to stage six load-shedding last week.

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