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Energy funding problems present an opportunity for the private sector to play a bigger role, writes **Anton Eberhard**

Eskom crisis will spark new deal

Change of power: It is unlikely that government can provide more cash for Eskom to invest in alternative energy projects. Photo: Paul Botes

Eskom is facing a funding crisis that is likely to persist into the next decade. As climate-friendly technology options are considered, its power-generation mix will become even more capital intensive, making it more difficult to finance these off its balance sheet.

The combination of Eskom's financial woes and pressures to mitigate climate change will more than likely lead to a new electricity market structure in which the private sector plays a much bigger role.

Eskom has just recorded a loss of R12.98-billion, before tax. Over the next five years its capital expansion programme will need R400-billion (nearly 10 times the budget for the arms deal).

Despite government assistance in the form of a long-term subordinated loan of R60-billion, and debt guarantees of R177-billion, Eskom faces an R80-billion funding gap.

In the past, Eskom funded its investment programme through private debt and retained earnings. Adequate tariff levels made this possible. This year, inexplicably, Eskom ducked the imperative of applying for increases sufficient to fund investment in new capacity. It is mind-boggling that Eskom is in the middle of a massive investment programme without any clarity on its funding model.

What is to be done? There are limits to how much Eskom can borrow, although Eskom is being more aggressive in accessing capital markets through a range of financing instruments, including local and international bonds, export credit and loans from development finance institutions such as the World Bank and the African Development Bank.

It is unlikely that government can provide more in terms of equity for Eskom, given the recession, reduced tax income and increased demands for social expenditure. Perhaps a special taxpayer levy, further subordinated loans or sovereign guarantees can be explored, but none of these will be easy in the present economic environment.

Ultimately, debt has to be repaid and there is only one sustainable source of revenue — electricity tariffs. As Public Enterprises Minister Barbara Hogan made clear in her recent budget speech, prices need to cover costs, including the cost of capital. Steep tariff hikes are thus likely to continue.

In addition to these financing challenges, Eskom will have to start confronting the imperative of mitigating climate change. More than 90% of South Africa's electricity is generated from coal.

South Africa and other emerging economies say they still need to invest in least-cost power-generation technologies in order to grow their economies and meet socioeconomic needs.

Rather than limiting emissions at below those of industrialised countries, they seek a more just outcome, by which the world moves to equal emission rights.

The problem is that South Africa's carbon-dioxide emissions are already way above the world average and its margins regarding greenhouse gas emissions are shrinking.

Last year, Cabinet noted recommendations arising from the long-term mitigation scenario modelling exercise, which would permit South Africa's emissions to rise to a plateau in the early 2020s and then decline. A policy process was announced in March this year that aims to produce a white paper on a national climate change response policy by the end of 2010.

Eskom's board is aware of these developments and is considering alternative investment paths that would limit carbon emissions after 2025. This almost certainly includes building a third massive coal-fired power station after the two now being constructed — Medupi and Kusile — and, perhaps, also a fourth.

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The big question is: what will replace coal?

Frontrunners in planning projections are nuclear energy and concentrated solar plants (CSP). But these technologies are much more capital intensive than coal and will cost two to three times more an installed megawatt. Indeed CSP, with its lower capacity factor, will be even more expensive for each megawatt. Wind energy will also play a role, but not as large as the other technologies.

And so we are back to the challenge of how we will finance future power-generation capacity.

Eskom's funding crunch will be most acute over the next three years. Large tariff increases will help. But the next wave of investment decisions, that will have to be made soon, will once again create a crisis that will probably only be solved by facilitating the entry of more players into the electricity industry.

This is already government policy: Cabinet decided long ago that up to 30% of new power generation could come from private, independent power producers.

But Eskom has not yet signed any purchasing agreements with independent producers. That will have to change.

Electricity sector planning has now been shifted to Eskom's system operator, who is producing a national plan, including low-carbon scenarios. These will soon be published.

What is still missing is a governance mechanism to encourage greater transparency as well as confidence in the impartiality of the planning process.

The department of energy is talking about an independent system operator, which could create a more objective institutional base for contracting the private sector. That would involve a profound restructuring of Eskom and might not happen in the short term.

In the meantime, the regulator is trying to implement feed-in tariffs for renewable energy technologies, but much work still needs to be done on acceptable power-purchase and transmission-access agreements.

The issue of power sector market restructuring is thus, once again, on the table.

It is clear that Eskom cannot do everything — nor does it wish to. The associated pressures of climate change mitigation and financing will gradually erode barriers to private sector entry and South Africa's power sector will migrate inevitably to a market structure that encompasses more diversity and cleaner technologies.

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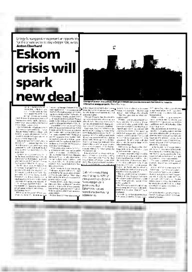
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