

Eskom's ninth decade

"Shift performance and grow sustainably"

2003 - 2013

Eskom's final decade to date has in many ways been its most tumultuous. Its reputation hit a new low, and there were serious concerns that South Africa's famous power utility had done itself irreparable harm. The rolling blackouts that began towards the end of 2007 cast a gloom over the country, and the economy took a hit, as mines were forced to tap back on production, losing out on the potential gain when palladium and platinum prices hit record highs in early 2008. It would take a change in Eskom's leadership, and some serious soul-searching by the organisation, to turn perceptions around and put the organisation back on the front foot.

In the current political climate, where state-owned companies (SOCs) are seen by the government as "strategic instruments of industrial policy", it is easy to forget that, in 2000, the talk was of privatisation. However, now there is a move towards "corporatising" Eskom. Corporatisation is "the transformation of state assets or agencies into state-owned corporations in order to introduce corporate management techniques to their administration" (Wikipedia). This is a worldwide trend and has been used to reform electricity markets.

In 2003, it was clear that South Africa would face an electricity shortage, and Eskom's Board of Directors took "a final decision" to return three power stations to service: Camden, Grootvlei, and Komati – none too soon, as peak demand jumped from 31 928 MW in 2003 to 34 195 MW in 2004. Yet the political momentum at the time was not behind beefing up generation, but in connecting more people to the grid.

In March 2004, some 7,8 million households had been connected, a massive jump from the three million households connected in 1990. Partly in recognition of this achievement, in 2004, Eskom won the Markinor *Sunday Times* Grand Prix Award for having done the most to uplift the lives of South Africans. It was also identified, in that same year, by Markinor *Sunday Times*, as South Africa's most admired brand.

The problem for Eskom was that, by around 2003, formal urban settlements had been electrified, and efforts would focus more on rural areas which would be somewhat costlier and require more bulk infrastructure by way of extended transmission networks and transformers, slowing the rate of electrification. In 1997, there were half a million connections; in 2006, there were just over 150 000. The government's desire for universal access was also somewhat complicated by changes in policy. Up to 2001, Eskom paid for electrification through cross-subsidies from its major customers. The National Energy Regulator (NER) introduced a more transparent pricing system, which made cross-subsidising unviable. Further, since Eskom started paying taxes in 2001 (as part of the corporatisation process), the capital cost of new connections was funded directly from the government fiscus. In 2002, the Integrated National Electrification Programme (INEP) was set up, and in 2005, it was established within the Department of Energy (at the time, it was the Department of Minerals and Energy). Yet, even though the budget came from government and was channelled through INEP, it still fell on Eskom to do the bulk of the electrification.

Construction had started on the Ingula pumped-storage scheme in 2006 and on Kusile and Medupi coal-fired power stations in the following year, but it would be some years before they would send power to the grid.

Although two gas turbine plants, Ankerlig (Atlantis – near Cape Town)

and Gourikwa (Mossel Bay), came into commercial service (first phase) in 2007, it was not enough to avert the shortfall. The stations had been designed to deal with peak demand in the Western Cape and to use an open-cycle gas turbine (OCGT), which ran off diesel – a very expensive source of fuel.

In 2007, Eskom warned that, over the next five or six years, the system would be constrained and called for a collaborative effort from all stakeholders to minimise the likelihood of power interruptions.

Moosa left the organisation in July 2008 and was replaced by the chairman of Business Unity South Africa (BUSA), Bobby Godsell.

On 28 October Godsell presented a vision, which listed "41 concerns" with the way things were going. On 9 November long-standing board member, Mpho Makwana, was appointed to act as chairperson with executive authority – "de facto interim executive chair". Maroga left the organisation on 11 November.

But there were some highlights in 2009. In September of that year, Eskom won the Golden Key Award for Public Body of the Year – an award given by the South African Human Rights Commission and the Open Democracy Advice Centre for promoting openness and compliance with the provisions of the Promotion of Access to Information Act (PAIA).

On 1 July 2010, Mpho Makwana was confirmed as chairman and Brian Dames was made Chief Executive. The two wasted no time in charting a new direction for Eskom.

On 20 and 21 October 2010, a further step was taken to "define a new and brighter future for Eskom", when a strategic review was discussed at a "Board breakaway". While there have been tweaks, modifications, additions, and subtractions to the October resolutions, they nonetheless formed the foundation of Eskom Holdings' comprehensive six-year Corporate Plan.

The approval of the plan was delayed, as Minister of Public Enterprises Malusi Gigaba initiated a Board shake-up mid-2011. So it was that, on 1 July 2011, Zola Tsotsi took over as chairman of Eskom.

For Dames, the major criticism he had to face was around the issue of rising electricity prices. Dames has pointed out that Eskom's demand-side interventions are helping businesses and individuals decrease their electricity bills. Eskom's Energy Efficiency and Demand-side Management (DSM) Programme began in 2003. In 2010, an Integrated Demand Management (IDM) Division was established to deal with all Eskom's demand-side initiatives.

In 2011, Eskom won a Squirrel Award from the Investment Analysts Society (IAS), a first for a non-listed company and for a state-owned company. The award was for excellence in financial reporting and communications. Eskom also won awards from Ernst & Young for its reporting: firstly, for excellent corporate reporting (September 2011), and then, Eskom's Integrated Report for 2011 was placed second (behind the Bidvest Group)

in the Ernst & Young Sustainability Reporting Awards (October 2011). There was also the JSE Spire Awards, where Eskom was awarded "Best Issuer" for its commitment to transparency and the sharing of information. In the beginning of 2012, Eskom was awarded the gold medal in the "Sector Excellence: Energy and Minerals Sector" category at the Public Sector Excellence Awards. The year 2012 also saw the Eskom Finance Company (along with ABSA Capital) pick up the EMEA Finance Award for its R5 billion residential mortgage-backed securitisation programme, Nqaba Finance 1 Limited.

In July 2010, the first 765kV line structure between Majuba and Umfolozi was completed. On 19 November 2011, the Minister of Public Enterprises, Malusi Gigaba, and Brian Dames attended a key erection milestone for the boilers at Kusile power station. On 8 June 2012, President Zuma initiated the final phase of the pressure test on the boiler of the first unit of Medupi power station, and on 31 October, the Minister of Energy, Dipuo Peters, announced that her department had entered into 20-year agreements with 28 preferred independent power producers (IPPs) for the supply of 1 425 MW of renewable energy onto the grid.

In the latest Annual Report, there are many more green arrows than red arrows, and significantly one of those arrows is for 4,2 million homes electrified since 1991. Universal access is no longer a far-off dream, but an impending reality. •

2003
to
2013

On completion, Medupi will be the world's biggest dry-cooled power station.

Eskom generates about 45% of the electricity consumed in Africa.



All six of Medupi's units will be retrofitted with flue gas desulfurisation (FGD) technology, which will result in a 90% reduction in sulphur dioxide emissions.

The Eskom Dictionary for the Electricity Supply Industry/Eskom Woordeboek vir die Elektrisiteitsvoorsieningsbedryf (JD Posthumus, revised by S de Wet (1998), and commissioned by Zama Bekeweni) won an ATKV Award in August 2006.

The US is the biggest consumer of electricity in the world at 3,8 trillion MWh per year, compared to South Africa at 241 million MWh. That means that America consumes almost 16 times as much electricity than we do. Its per capita consumption is around five times higher than South Africa's.

Eskom relies on coal-fired power stations to produce approximately 90% of its electricity.



The first phase of the Ingula pumped-storage scheme (near Ladysmith in KwaZulu-Natal) started in 2006. The entire scheme is being constructed entirely underground – 150m below the surface.



Gariep, Vanderkloof, Palmiet, and Drakensberg hydropower stations are peaking power stations and can come online within three minutes, making them ideal for rapid reaction to emergency demand.

On the evening of 31 March 2012, millions of South Africans observed Earth Hour by switching off lights and electrical appliances. Eskom ascertained that the initiative saved 402 MW – enough electricity to power Mangaung (Bloemfontein).

DID YOU KNOW?

Eskom uses over 90 million tons of coal per year.



The cost of coal mining in Europe is almost four times what it is in South Africa.

It is estimated that the waterways of southern Africa could, if properly harnessed, produce as much as 80 000 MW – enough to power the region for some years to come.