

Bright schemes to keep the country's lights on

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THE recent power outages in and around Johannesburg have been blamed by City Power on obsolete machinery and underinvestment in the late apartheid years.

While these are contributing factors, the fact is that with demand for electricity increasing at a rate of 2,5%-3% a year, SA is close to exhausting its capacity to meet its energy needs from domestic sources.

Thulani Gcabashe, CEO of Eskom, predicted recently that SA would run out of excess peaking capacity in two years (2007) and excess base load by 2010. Unless urgent steps are taken to supplement SA's energy resources, Johannesburg-type power failures could become a regular feature of the national landscape.

Fortunately government's Central Energy Fund (CEF), is aware of the problem, and has in

place short- and longer-term strategies to avert a looming crisis.

The short term involves the recommissioning of power stations mothballed in the 1980s, when SA enjoyed a surplus of electricity. It has also put out tender invitations to the private sector to bid for the construction of at least two new power stations. The department and Eskom are also involved in the development of the pebble-bed modular nuclear reactor (PBMR). A new form of high-temperature helium gas-cooled reactor, the claim is that the PBMR will be a faster, cheaper, more efficient source of nuclear energy than the technology used at Koeberg.

In the longer term, the strategy involves hydropower, liquid fuels and oil. Critical to each of these is accessing Africa's mineral and energy resources. The most ambitious component of the strategy is the Grand Inga hydro-

electric project in which Eskom is a partner. It involves refurbishing and extending over two decades the Democratic Republic of Congo's Inga Falls power station to supply thousands of megawatts of electricity to SA, Angola, Botswana, Namibia and Congo.

Sasol is driving the development of a liquid-fuels industry. It has invested heavily in the Pande and Temane on-shore natural gas fields in central Mozambique, from which gas is pumped by way of an 865km pipeline to Secunda. A second pipeline, from Durban to Secunda, transports gas sourced from the Kudu field off the Namibian coast.

SA depends on imports for about 98% of its crude oil needs — 75% of this comes from the Middle East and 23% from Africa, Nigeria being the largest supplier. In the past five years, SA has moved to reduce its dependency on imported oil by buying into the African oil market as either a

sole proprietor or in partnership arrangements. Leading this attempt to acquire a greater stake in the African crude oil market is the CEF-owned PetroSA and Sasol.

PetroSA is involved in joint-venture arrangements in Algeria, Angola, Gabon, Nigeria and the Sudan. In Sudan, this involves oil-concession rights negotiated with the Sudanese state oil company, Sudapet. Sasol is involved in oil production in Gabon and has both oil-exploration rights in Equatorial Guinea and joint-venture stakes with that government's energy utility. These have resulted in it acquiring stakes in oil and gas fields in Equatorial Guinea's Rio Muni Basin. These latter concessions followed shortly after the arrest of South African and other mercenaries allegedly planning a coup in that country.

Parallel to this scramble for some of Africa's primary resources, the state is involved in

pushing South African companies to acquire a share of the lucrative secondary or supply side of the African energy industry, dominated by European and US companies. Realisation of this goal is being driven by the Cape Oil and Gas Supply Initiative (COGSI), a venture funded jointly by the Western Cape government and the City of Cape Town Metro Council. The goal is to develop the Cape Town-Saldanha Bay corridor as the supply and fabrication hub for the Atlantic coast and central African oil sectors.

This market generates about \$10bn in revenue and COGSI's goal is to capture an increasing share of this market. The decision of German conglomerate MAN Ferrostaal to develop an oilrig manufacturing plant at Saldanha fits perfectly into this objective. Other companies are seeking to service this sector by way of oilrig service contracts, or by supplying food, clothing, equipment and

other cogs in the machine of the huge and rapidly growing offshore oilrig industry.

Three points by way of conclusion are pertinent. The first is the proactive nature of the CEF's energy strategy; the second is the extent to which the unfolding of this strategy will intensify the integration of the South African and African economies, particularly with regard to the Southern African Development Community bloc. Finally, SA's increasingly close oil relations with two of Africa's most repressive regimes, in Sudan and Equatorial Guinea, suggest that when it comes to oil, any government will do.

■ *Dr John Daniel and Jessica Lutchman are co-editors of and contributors to State of the Nation: South Africa 2005-2006, the third in the Human Sciences Research Council's series of annual volumes of essays about SA. This is an abridged version of their chapter.*