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Electricity investment / Anton Eberhard

Vital to get market structure right

South Africa's looming power shortages will probably be averted, but at what cost to the economy?

Eskom is starting to re-commission old mothballed coal-fired power stations. It now appears that government will authorise Eskom to procure further power generation capacity to meet peak electricity demand in the period 2006-2007.

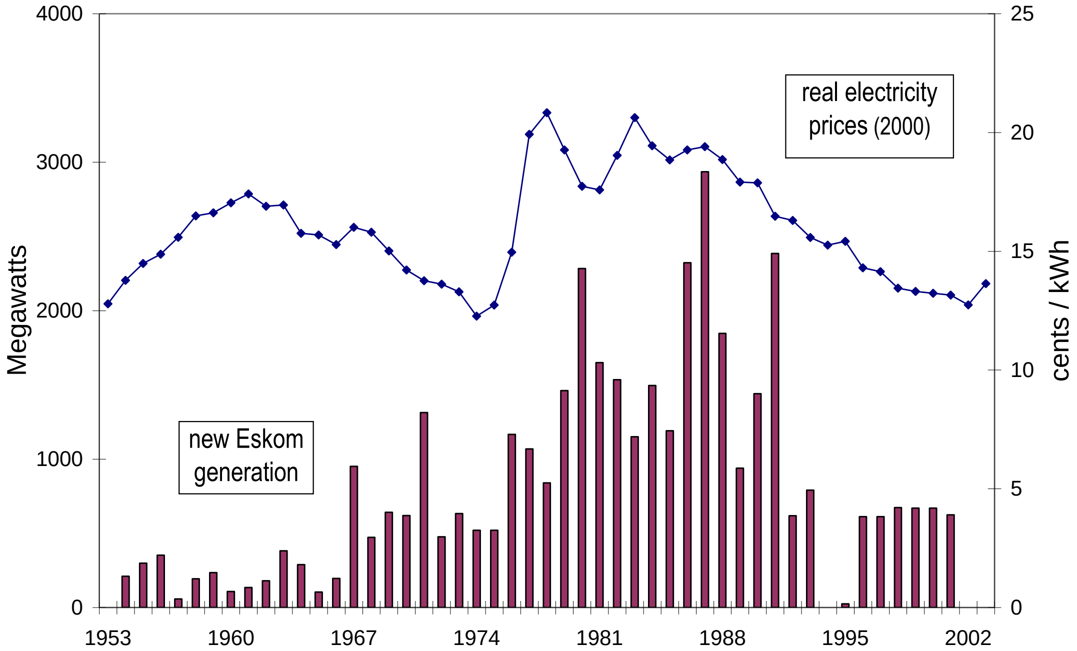
Meanwhile, the Department of Minerals and Energy has also initiated a private sector tender to procure new capacity in 2008.

South Africa's growing electricity demand will require capacity additions in each subsequent year and because of the long-lead times, many of the investment decisions need to be made soon. Over the next 10 years, approximately R100 billion will have to be committed to new power generation projects.

The magnitude of these new investments creates both opportunity and risk. If capital is allocated efficiently then the electricity industry will contribute to increased economic growth and competitiveness.

If poor decisions are made around market structure, technology and the timing of investments, then the resulting cost increases will be passed to consumers with negative consequences for economic performance and social welfare. An analysis of the performance of Eskom over the past 50 years indicates that this is exactly what happened during the last investment cycle.

The graph below shows that electricity consumers faced a real increase of 70% between 1974 and 1978 and high prices continued through the 1980s – because Eskom ordered power stations that were not needed. The graph also demonstrates that electricity prices are no cheaper today, in real terms, than they were in the early 1950s or mid-1970s. This implies that, despite massive new investment, Eskom has not achieved any lasting or dramatic efficiency improvements. And electricity prices are again increasing.



Source: Eskom Annual Reports and Statistical Yearbooks

One could argue that Eskom today is a different organisation. It's commercial management has improved since the 1980s. It operates as a company with a (government) shareholder agreement specifying performance expectations. And the National Electricity Regulator is progressively imposing a more rigorous cost-of-service regulatory regime.

Nevertheless, the basic institutional model of a publicly-owned monopoly industry means that risks are shifted disproportionately to consumers or taxpayers. And because of information asymmetries, the regulator will never have a perfect picture of costs and potential efficiency gains.

What are the alternatives? Two broad electricity market models have emerged over the past two decades. The first is competition for access to the electricity market. The private sector is encouraged to invest in new power generation capacity through competitive tenders or auctions. If well managed, competition can result in improved efficiencies in technology and investment choices.

The second electricity market model involves ongoing competition between electricity generators and suppliers to dispatch and sell electricity to consumers. Competition is managed through a power exchange or bilateral markets or both, and risks may be managed through derivative financial markets.

What is now emerging in South Africa is a hybrid model. The incumbent, Eskom, which generates 96% of our electricity, has been given responsibility for immediate new investment. Eskom is also actively exploring a range of new options, including joint-venture investments. At the same time, government is proceeding with a tender for new private IPPs. Meanwhile, Cabinet decisions in 2001, and subsequent design work on a power exchange and bilateral contract electricity market, appear to be on hold.

Ministers now make speeches indicating that competition is not a priority and Eskom's unbundling or privatisation in the short term is unlikely. However, no new or comprehensive electricity policy has been announced officially.

As has been pointed out by analysts in this newspaper and elsewhere, the current situation creates a great deal of uncertainty for private investment – and uncertainty means higher risks and higher costs.

What is the sensible way forward? Clearly the first step is for government to spell-out the institutional and market structure within which new power investments will be made. If the preferred model for the next few years is for IPPs to come into the market – then the procurement of these multi-billion investments will need to be managed by an institution with robust financial, technical and contracting capability. Government departments and the regulator are not well positioned to fulfil this function.

This leaves Eskom as a possible candidate. However, Eskom cannot be both player and referee. An obvious solution is for Eskom's transmission division and system operator to be unbundled into a separate company (still state-owned). A new, single-buyer office could be established within this company which would be responsible for system planning and capacity procurement.

This is a relatively uncomplicated, no-regrets option that could be accomplished within 18 months. In the medium to long-term, it makes sense anyway to separate potentially competitive elements of the industry (generation and supply) from non-competitive, natural monopoly components (transmission). Cabinet, in 2001, has already agreed to this. There is every reason now to proceed. It solves the immediate need for creating a robust, transparent and fair process for new generation procurement, while establishing a platform for possible competition in the future.

It is equally clear what NOT to do. It would be disastrous to consider privatising Eskom or selling a strategic equity stake (as was initially done with Telkom) without first unbundling Eskom and creating the conditions for competition. Privatisation within the existing industry structure would severely restrict government options for creating a more competitive structure for the industry in the future.

The above approach also has many potential advantages for Eskom. Its business model could shift from a defensive stance of trying to protect domestic market-share and obstructing market reform, to being a forward-looking company, confident that it can succeed in competitive markets, not only in South Africa, but also internationally in emerging markets.

Government is turning its attention to the large infrastructure industries that underpin our economy. It is committed to ensuring that these industries receive substantial new investment and that efficiencies are improved. Getting the structure of the electricity market right will be an important first step.

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