MERIDIAN ECONOMICS
NAVIGATING COMPLEXITY

Kusile: Good money after bad – should we quit before we're further behind?

Despite some claims to the contrary, Eskom's financial problems are far from resolved. Eskom's woes with the construction of Medupi, Kusile and Ingula are well documented. Both Medupi and Kusile coal fired power stations are highly complex mega projects and have their fair share of large cost overrun and delay problems that typically bedevil such projects.

While Eskom is proceeding to add vast amounts of new capacity to the system, demand for its product is down, with a completely unforeseen and unprecedented reduction in electricity demand over the past ten years (maximum demand and energy supplied). This is undoubtedly the combined result of charging the highest real electricity tariffs in recorded history (since 1950) and a period of chronic load shedding that dealt a fatal blow to investor confidence in South Africa's power system.

Global rating agencies agree. For instance Standard & Poor's have recently cut Eskom's credit rating a further notch into the sub-investment or "junk" territory. Given the Government's large guarantees for Eskom debt this also creates further pressure for South Africa's sovereign rating to be downgraded to junk status.

Eskom's new acting CEO Matshela Koko is already complaining about surplus capacity and has responded along with the departing CEO, Brian Molofe, by unleashing a barrage of spin to talk up the situation; and by illegally refusing to sign the latest round of renewable energy contracts.

Given the many financial and other challenges faced by Eskom – and more importantly the critical imperative to restore confidence in the economy in order to encourage investment, job creation and economic growth – South Africa deserves better. It appears that there might well be better options available to improve Eskom's lot. But, this will mean going back to some of the root causes of the current Eskom crises: Eskom's mega project build programme.

Kusile is the last in the queue for completion with its first unit only scheduled to be commissioned in July 2018 and the last unit, optimistically expected to be in operation by Sept 2022. While most of the public attention has been on the delays and cost overruns at Medupi, most of the Kusile story is yet to unfold. Chris Yelland from EE Publishers has recently estimated the total capital cost for Kusile to be R239,4bn and the cost of the electricity that it will produce to be more than R1.16/kWh. Many pointers suggest that these figures are conservative and are almost guaranteed to be substantially higher. Eskom's financial troubles are primarily related to the fact that it has to fund these enormous capital costs over a construction period of almost one and half decades before it is able to generate electricity from the investment; and that the economy has little room to absorb further tariff increases.

Contrast the Kusile power costs and large financing obligations with the prices from the latest round of electricity procured from the private sector under the Government's competitive renewable energy programme which has come in at an average price of 62c/kWh in late 2015, or approximately half the cost of Kusile. Average prices of 42c/kWh and 47c/kWh in Morocco and Mexico in 2016 suggest that the downward trend in renewables prices can be expected to continue. Add to this the fact that consumers do not have to fund the construction of renewable energy for years before commissioning and that the private sector investors have to take all the risks on cost overruns.

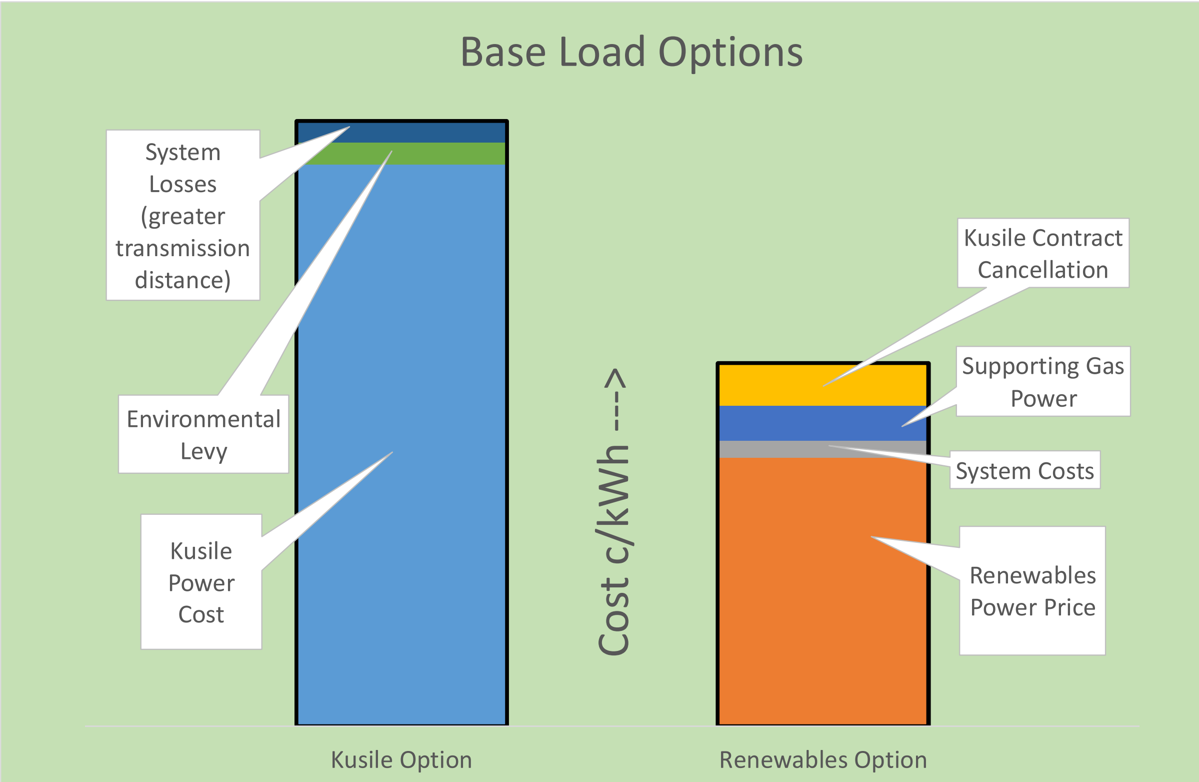

Illustration of potential savings gained by moving to a renewables base load option

Under these circumstances, and with falling demand for Eskom power, it becomes imperative to ask the question whether it is in South Africa's interest to complete the entire Kusile project. For instance, cancelling the second half of Kusile might save up to approximately R100bn in capital costs that would have to be funded by Eskom and underwritten by the Fiscus. Avoiding this capital expenditure could potentially make an enormous contribution to: de-risking Eskom's balance sheet, restoring its credit rating, reducing its funding costs and ultimately substantially reducing the need for future tariff increases. If the cancellation of part of Kusile results in the acceleration of the renewables programme it will build on one of the few good news stories coming out of SA in recent years.

It is now also increasingly likely that it could make financial sense for Eskom to procure cheap renewables to reduce the use of its most expensive older coal plant, as we show in our presentation at the IRP 2016 public hearings.

Surprisingly the Government's latest IRP2016 base case analysis does not consider these obvious questions. Neither does it consider the fact that cancelling part of Kusile might be one of the lowest cost strategies to contribute towards meeting South Africa's climate change mitigation obligations.

Expect strong protests from Eskom and other quarters about the possibility of this option. With the enormous resources involved many interests have coalesced around the Kusile and Medupi construction programmes. There will be arguments about existing contractual commitments, penalties, network and system constraints, job losses, the coal industry, etc. However, if the hypothesis is correct it means that there will be much cheaper and cleaner ways of producing "baseload" electricity than that offered by Kusile. These alternatives will also create jobs, but now in industries that are more closely aligned with South Africa's future, rather than its past. If the Kusile hypothesis is correct, persisting with the original plan will, by definition, result in a direct deadweight loss to the economy and retard economic growth and development.

The complexity of the contractual structure for the Kusile project means that the precise cost of cancelling part of the project will be hard to determine up front – even for Eskom. It will of course be necessary to undertake investigations to obtain a reasonable understanding of the costs and benefits of the alternatives to completing Kusile. However, with looming surplus capacity, Eskom's financial crises and the magnitude of the potential cost saving, it might well be that having the precise numbers is not necessary in order to make the correct decision.

Given their institutional interests it is unlikely that senior Eskom executives will have sufficient incentives to properly investigate this question, and they will be reluctant to provide the information required for others to do so. During the worst part of South Africa's load shedding the national public utility seemed to become more open and to take the public into its confidence – especially when it needed the collaboration of many consumers to maintain system stability. More recently Eskom appears to have reversed this trend and is now a much more secretive organisation. Investigating questions such as these will have to be driven by stakeholders outside of Eskom.

There are a range of stakeholders that should be interested. National Treasury provides loan guarantees to Eskom and will no doubt be expected to guarantee further Eskom borrowing for Kusile power station. The National Energy Regulator of South Africa (NERSA) must, by law, set Eskom's tariffs to cover ***efficient*** costs. When a real possibility arises that Eskom could have cheaper alternatives than completing some of its expensive mega projects NERSA will have to consider this option at the next Eskom tariff application. NERSA will arguably have to undertake an enquiry into these options before it can legitimately approve Eskom's tariffs as being reflective of efficient costs. And then there are electricity consumers and their representatives, such as the Metros who buy Eskom power on behalf of their cities, and the Energy Intensive Users Group, South Africa's various business organisations, civic organisations, etc. These are all powerful players who should increasingly be asking difficult questions such as these in the public interest.

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12 December 2016