Over R1.2 trillion expected to be spend on IPPs if the current energy plan is not revised

By Matshela Koko

The introduction of independent power producers (IPPs) was partly based on the assumption that Eskom would only be able to build enough generating capacity by 2022. But through disciplined implementation of the plant maintenance programme, Eskom has been able to stabilise the power system, resulting in no load shedding in more than one year.

This turnaround is a game-changer. It will have a significant impact on the expedited IPP Bid Windows which are based on Eskom not being able to turn around its operations by 2022. It significantly improves the medium-term capacity outlook. Most importantly, it has a positive impact on the price that the consumer will pay for electricity going forward.

It is now common knowledge that Eskom's energy availability improved from 70% in October 2015 to 79% in August 2016. The improved plant availability has unlocked over 3 700 MW of additional capacity from the existing fleet. The new build programme has delivered 666 MW from Ingula's two commercially operational units and 730 MW from Medupi unit 6.

Eskom's Corporate Plan is based on an electricity growth rate of 0.8% Compound Annual Growth Rate (CAGR). The supply is adequate to meet this electricity demand until 2021 with Independent Power Producers up to Bid Window 3. This is based on Medupi and Kusile delivering on their revised schedule and the energy availability factor of 80% being achieved by 2021. At a growth rate of 0.8% CAGR, Eskom is not obliged to contract in additional capacity, as demand can be adequately met using the existing resources at hand. This also applies to a growth rate of up to 2.4% CAGR, at which Eskom is able to meet and exceed the NERSA 19% reserve margin.

However, with a growth rate of 3.3% CAGR, Eskom will need additional capacity up to 2021 which can come from various sources, namely, accelerating the current Eskom new build programme, further improvements in energy availability and extending the life of existing plant from 50 to 60 years.

Therefore, even at an exaggerated growth rate of 3.3 % CAGR, Eskom is able to meet demand up to 2021 using above mentioned levers to reach the required reserve margin of 19%.

The impact on the average electricity price due to purchases from Independent Power Producers is not fully appreciated. Excluding short-term Independent Power Producer contracts, Eskom will buy 7 210 gigawatt hours (GWh) at a cost of R15.5 billion for 2016/17 financial year from renewable Independent Power

Producers, at a resultant average unit cost of 214 cents per kilowatt hour (c/kWh). Compare this to Eskom's average selling price of 83c/kWh (including transmission and distribution). This electricity from renewable IPPs is available mainly when Eskom has sufficient capacity and would otherwise have been able to produce this cheaper from its own resources, incurring only fuel cost.

Assuming Eskom signs up to Bid Window 4.5, for 2021/22 financial year, Eskom will buy 20 141 GWh at a cost of R 41.4 billion from renewable IPPs, at a resultant average unit cost of 206 c/kWh.

From an annual price increase perspective, the 9.4% price increase for 2016/17 results in additional revenue of R15 billion. Realistically, R5.9 billion of that additional revenue, which is 40% of Eskom's revenue increase for the year, is absorbed by the increase in the energy purchased from IPPs. Given the medium-term outlook can this cost be justified?

The electricity system will be adequate until 2021, without contracting additional IPPs. The expansion of the electricity system after 2021 can only be informed by an updated Integrated Resource Plan (IRP). The current IRP was last updated in 2010 and does not reflect the current economic and technological realities. The approved IRP projects a 4.5% GDP growth since 2010 with a resultant electricity growth rate of 2.8% year-on-year. The National Treasury is projecting a 0% growth rate in GDP. Continuing to implement the current plan is ill advised and will result in surplus capacity with higher prices to consumers than would otherwise have been possible. It is imperative that this is revised timeously so that the necessary decisions can be taken to ensure the optimal expansion of the system, post 2021.

Over the next 20 years, R1.2 trillion, in nominal terms, is forecasted to be spent on approximately 7 300 MW from co-generation, Department of Energy peaker plants, renewables, smalls renewable programme and Bid Windows 1 to 4.5.

It is within this context that the Chairman of Eskom has asked for a dialogue. He is merely exercising his fiduciary duties. Why is he being told to shut up? It is in the national interest to have this debate. Who stands to benefit when this debate is swept under the carpet? After all, the current expansion plan will bring unnecessary higher cost to consumers and will ultimately increase the cost of doing business in this country, impacting country competeveness.

- Koko is Eskom's Group Executive for Generation