



## **Eskom's improved plant performance helps keeps load shedding at bay, with excess capacity being exported**

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Over the last few weeks and months, Eskom has been releasing regular system status updates in an effort to provide transparency on our electricity generation challenges and achievements. These reports have highlighted our improved fleet system performance. Therefore it should not have been a surprise but rather a celebration that South Africa has not had load shedding for more than nine months. Eskom does not anticipate the implementation of load shedding this winter and beyond.

Moody's Investors Service indicated that improved electricity reliability played a key part in their recent ratings decision. A number of so-called experts have however raised questions as to whether this improved performance was really due to Eskom or other 'factors'. Some experts have argued incorrectly that it was not due to improved Eskom performance but a reduction in demand that stopped load shedding.

It is a fact that the energy sent out year-to-date is approximately 3% lower when compared to the same period last year. However it is also a fact that the peak weekly electricity demand in week 14 was higher than last year's peak weekly demand and Eskom was able to meet this demand comfortably. The highest peak demand (year to date) was reached on 16 May 2016 (at 18:17) when the system required 34 051 MW. Again, Eskom managed to meet this demand and this was done without dispatching open cycle gas turbines. Another notable point is that during that peak hour, the energy output from the renewable independent power producers (IPPs) was negligible. Eskom's capacity available at that time was 36 517 MW (excluding the Ingula units) and this was also the highest capacity attained over the last three years. This capacity was attained whilst undertaking all planned maintenance.

The 3% reduction in electricity demand is therefore part but not the whole story of why there is no load shedding. The real story is the improved operational performance of Eskom; thanks to the leadership of Minister Brown, the stewardship of the Eskom Board, and the disciplined execution from the Eskom Guardians.

In November 2014, the South African Government set up the War Room. During that period, the unplanned breakdowns exceeded 8 000 MW and the diesel consumption was over 430GWh at a cost of R1.4 billion per month. Eskom needed 5 000 MW in additional capacity to clear the maintenance bottleneck and to keep the lights on. Of this, 2 000 MW was to come from running the open cycle gas turbines and the remaining 3 000 MW was intended to come primarily from IPPs as the commercial operation dates of Medupi and Kusile power plants were delayed. Unfortunately not all the required capacity was available, and this resulted in South Africa experiencing 318 hours of load shedding amounting to 1 062GWh (including load curtailment) during the 2015/16 financial year. The estimated cost of unserved energy is R74/kWh.

Eskom was determined to straighten itself up and instituted a set of stretch targets. The company had to become even more performance-focused and pedantic on the attainment



of targets. A new 'no excuse' culture was enforced whilst all required resources were provided to attain targets. This has enabled Eskom to operate within its maintenance budget of 11 500 MW in summer and 8 500 MW in winter. The Group Chief Executive focused on engaging employees and instilling passion and pride in Eskom. The executive team was tasked to focus on the core business and was protected from external political influences by the Eskom Board.

The results started showing from October 2015 on a number of key performance indicators. Plant availability increased from 70% (October 2015) to 76% (April 2016) due to better and more planned maintenance. The increase in availability is attributable to the decrease in breakdowns (unplanned maintenance) based on the ability to undertake effective maintenance and thereby improve fleet performance. Capacity has increased by 2 599MW (excluding Medupi) and 3 279 MW (including Medupi). Importantly, all the required maintenance took place whilst there was a reduction in the usage of expensive open cycle gas turbines. Diesel spend was reduced from R854 million (381 GWh) in October 2015 to R25 million (6 GWh) in April 2016.

Additional targets of 80% plant availability, 10% planned maintenance and 10% unplanned maintenance over the medium term were agreed and implemented. Overall, this has seen current month to date performance reach 78% plant availability, 12% planned maintenance, and 10% unplanned outages. This demonstrates steady progression towards the 80:10:10 target. This is clear evidence that the change in approach and the pedantic focus on targets is working.

As a result of the improved fleet performance, Eskom has excess capacity of up to 11 000 MW between 2am and 6pm in winter. Eskom is exploring all avenues to export this excess capacity.

By stepping up and stopping load shedding, Eskom has depoliticised the provision of electricity supply as some 'experts' had even begun to postulate that load shedding would be a sufficient reason for a regime change. It is expected that all role players will work together, acknowledge progress made and use this as a good news story to demonstrate that South Africa is capable.

Going forward, Eskom does not expect any load shedding for the rest of the year. The country will see Eskom progressively adding capacity over the next five years with overall capacity increasing from the current 44 087 MW to 52 589 MW. The additional capacity gained will fuel the South African economy which augurs well for economic development. Therefore South Africa's and Moody's increasing confidence in Eskom is well deserved.