07 February 2025

MINERALS COUNCIL SOUTH AFRICA

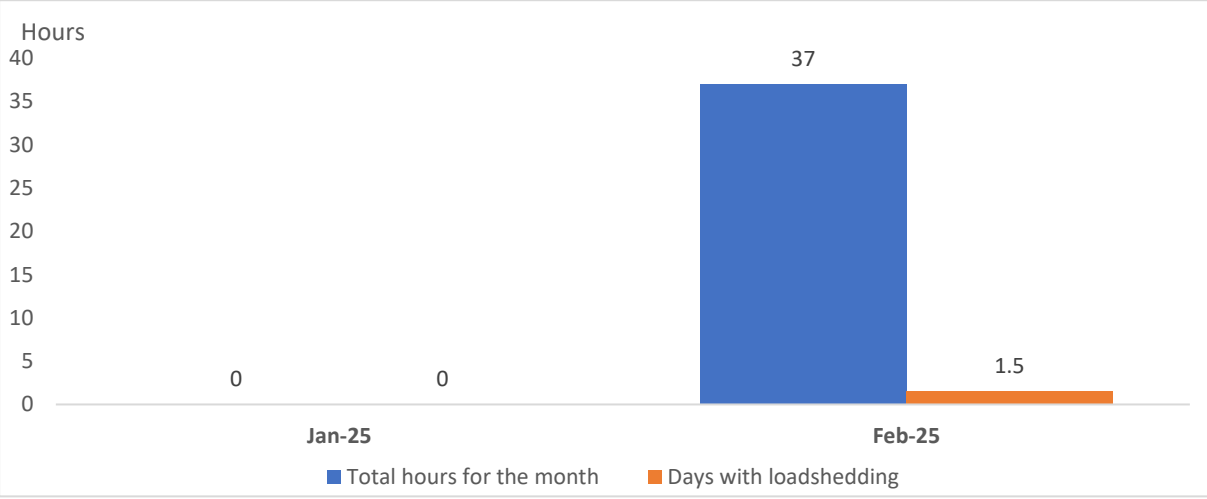
Electricity Update: **December 2024 to January 2025**

Metric	December	January	Unit
Energy Availability Factor (EAF)	56.9%	57.2%	Percentage
Loadshedding (all stages)	0	0	Hours
OCGT[1] Usage			Megawatt-Hours
- Average	351	409	
- Maximum	1,761	1,718	
Planned Maintenance (average)	8,356	6,373	Megawatts
Unplanned Maintenance/Outages (average)	11,620	13,289	
Other Maintenance (average)	172	337	
- Total	20,147	19,999	

Source: Eskom & Minerals Council SA

In January[2] 2025, Eskom's average Energy Availability Factor (EAF) improved slightly to 57.2%, up from 56.9% in December 2024. Following over 10 months of uninterrupted electricity supply, loadshedding returned during the first weekend of February due to multiple unplanned breakdowns. On January 27–28, Eskom experienced unplanned outages ranging between 2,000 MW and 3,000 MW. To mitigate the shortfall, Eskom maximised the use of emergency reserves, including open-cycle gas turbines (OCGTs) and pumped storage. However, by the first weekend of February, these reserves had been depleted, making loadshedding necessary to replenish them. Despite this, loadshedding was suspended on Sunday, 2 February, after a total of 1.5 days, while Eskom's summer outlook remains unchanged.

Figure 1: Hours and Stages of Loadshedding



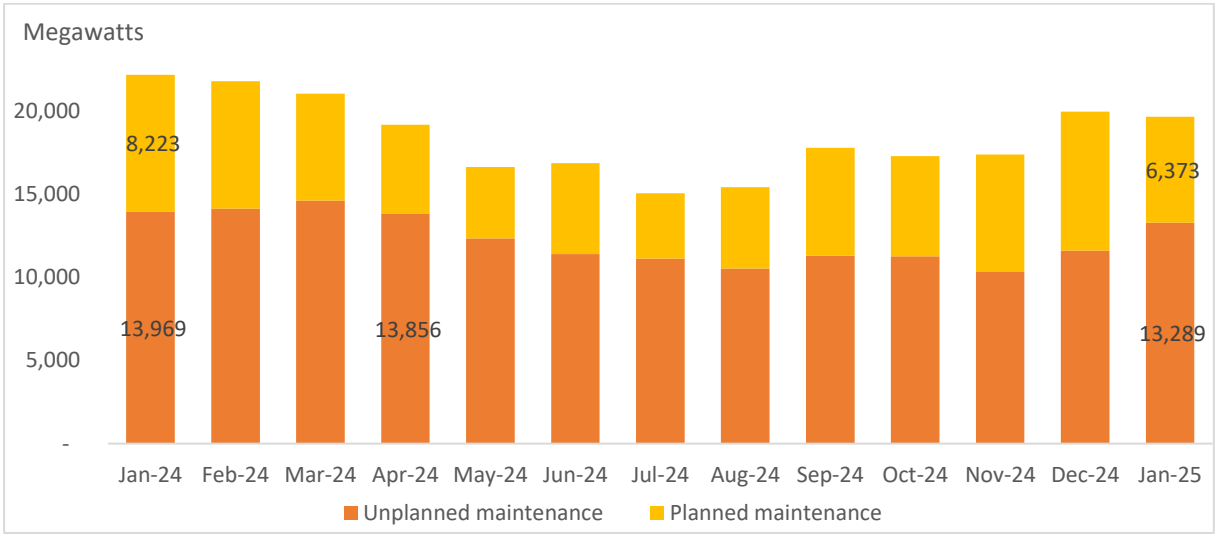
Source: Eskom & Minerals Council SA

In January, *average* total unplanned outages rose to 13,289 MW, up from 11,620 MW in December - the highest level of unplanned breakdowns since April 2024. A spike in breakdowns during the last week of January necessitated loadshedding to maintain system stability. However, Eskom successfully repaired and returned five coal-fired generation units

[1] Open Cycle Gas Turbine
[2] In January, the EAF ranged from a low of 52.0% to a high of 62.9%.

to service, adding a total of 2,930 MW to generation capacity and helping to bridge the gap between dispatchable supply and demand.

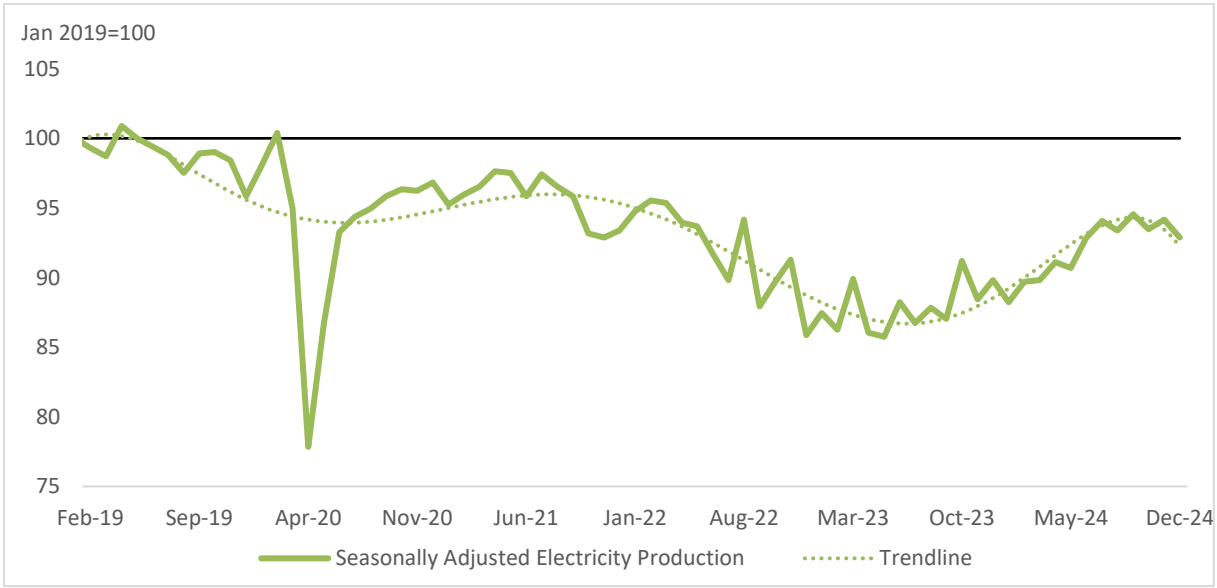
Figure 2: Eskom Unplanned Maintenance (outages) & Planned Maintenance



Source: Eskom & Minerals Council SA

According to data released by Stats SA yesterday, seasonally adjusted real electricity generation **increased** by **3.4% year-on-year** in **December 2024**. However, on a **month-to-month** basis, production **declined** by **1.4%** compared to November 2024, largely due to seasonal factors, as heavy industry typically shuts down during the festive period, reducing electricity demand. This allows Eskom to take more units offline for increased maintenance activities, which corresponds with reduced electricity production. December also marks the completion of full-year data for 2024, showing that electricity generation rose by 4.8% compared to 2023. Despite this growth, electricity generated and available for distribution in 2024 remained 6.5% below pre-COVID-19 levels recorded in 2019.

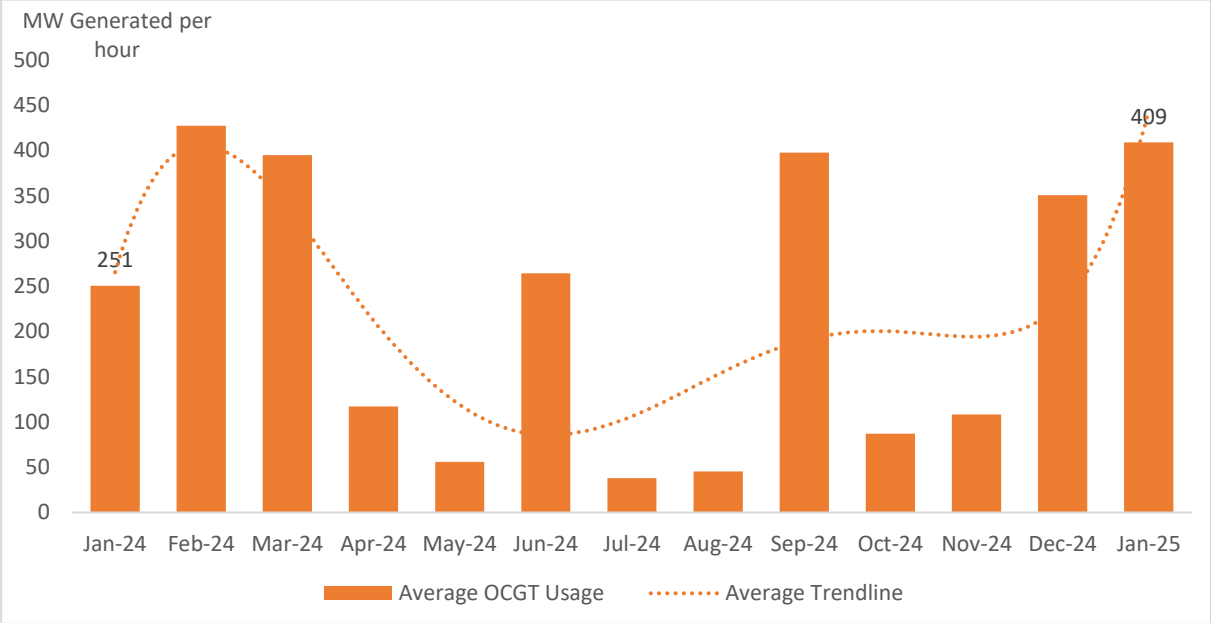
Figure 3: Electricity Produced and Available for Distribution – All Producers



Source: Statistics SA, Minerals Council SA

Figure 4 below illustrates the trend in OCGT usage during January 2025, with an average output of 401 MW per hour - the highest average utilisation since February 2024. This significant increase is primarily attributed to extensive usage during the last week of January, driven by a high level of unplanned breakdowns. As noted, Eskom relied heavily on OCGTs to meet demand amid intensified maintenance activities, alongside the use of pumped water storage. Encouragingly, OCGT usage has declined sharply following loadshedding early February, with output dropping to zero on several days due to refuelling and the availability of sufficient coal-based dispatchable generation.

Figure 4: Eskom - Open Cycle Gas Turbine Electricity Generation



Source: Eskom & Minerals Council SA

Lastly, it is worth noting that in January, the average electricity demand stood at 21,556 MW, closely aligned with dispatchable generation, which averaged 21,512 MW. Peak demand for the month reached 26,394 MW, with maximum dispatchable generation at 26,010 MW.

Conclusion

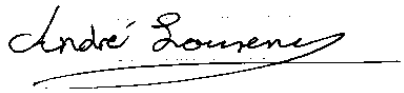
January 2025 highlighted both the challenges and resilience within South Africa's electricity system. While the grid remains under pressure due to unplanned outages and aging infrastructure, improvements in energy availability and the swift restoration of generation units demonstrate Eskom's capacity to respond effectively to system strain. The brief return of loadshedding in early February, though a setback, was short-lived, reflecting improved operational agility and the ability to stabilise supply quickly.

Despite some positive trends, including an annual increase in electricity generation and reduced reliance on emergency resources in early February, electricity generation has yet to recover to pre-pandemic levels. The narrow gap between peak demand and dispatchable generation capacity leaves little room for unexpected disruptions. Looking ahead, sustaining system stability will rely on continuous improvements in generation performance, driven by the ongoing implementation of Eskom's Generation Recovery Plan.

Lastly, although the full benefits of increased electricity supply have not yet translated into higher production across the mining industry, its availability continues to serve as a crucial foundation for driving future production growth. However, the absence of a tangible impact thus far suggests that other, more binding constraints are at play - chief among them being logistical challenges. Addressing these bottlenecks alongside energy supply stability and affordable electricity tariffs will be key to unlocking the industry's full growth potential.

- End -

Yours sincerely,



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