

State of the System – Winter 2025 Outlook Briefing

5 May 2025



Key takeaways and reflections for the Winter 2025 Outlook

Update on the Generation Recovery Plan

Update on Load Reduction and Demand Management initiatives

Eskom's direction of travel to achieve long term success

Dan Marokane
Group Chief Executive

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Dan Marokane
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- Significant improvements have been made since the Summer 2024/25 outlook (Sept 2024 – Mar 2025). However, we have seen some **setbacks in operational excellence**, as evidenced by the recent loadshedding requirements between Jan to Apr 2025.
- Visible year on year performance improvement due to **progress in the Generation Recovery Plan led to nine months of no loadshedding**, however Jan –April 2025 saw loadshedding implemented on five occasions.
- Despite the setbacks, Eskom supplied South Africa with more electricity and reduced loadshedding without excessive use of diesel – an improvement in operational performance.
- A clear plan has been developed to address the root causes related to the recent loadshedding events, focusing on people, plant and processes.
- Given the progress made to date with the state of fleet performance, Winter 2025 outlook is premised on:
 - **Unplanned outage scenarios revised downwards – ranging between 13 GW to 15 GW** (14 GW to 17 GW previous Winter)
 - **No loadshedding expected if unplanned losses remain below 13 GW** (at worst, 21 days of up to stage 2 if unplanned losses reach 15 GW²)
- **Load reduction remains** necessary at times to protect the network and people in some areas **with rampant illegal connections**. We have **embarked on campaigns with law enforcement** to remove these connections.
- Eskom continues to focus on **key strategic areas** to **become an investable, sustainable and competitive company** while **ensuring long term security of supply**.

#WeCanEndLoadsheddingTogether

1 April 2024 – 31 March 2025



352 days¹
of loadshedding free days



>R16bn²
In reduced diesel spend (1 April 2024 – 31 March 2025 vs same period last year). This represents a reduction of ~50%



~3.1 GW
Reduction in unplanned load losses compared to previous financial year



61% EAF
For FY25, improvement from 54.55% for previous financial year



12.8% PCLF
For FY25, slight increase from previous financial year’s 12%, indicating an increase in planned maintenance activities as part of the Generation Recovery Plan.



3.6% Sales growth
Estimated Sales volume growth for FY25 (compared to FY24 actuals), driven by reduced loadshedding and higher exports³.

Reflections: Number of loadshedding days were lower than expected over Summer period for the likely scenario, although more intense stages experienced between Jan and Mar 2025

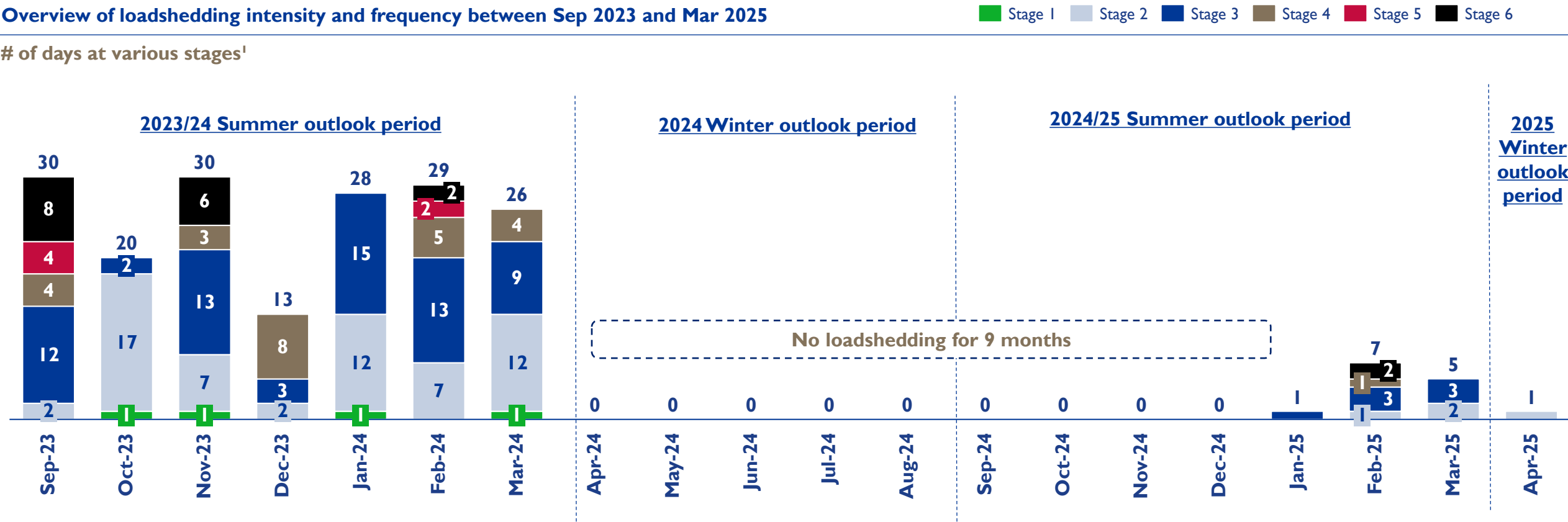


Better than expected As expected Worse than expected

Summer 2024/25 – 1 September 2024 to 31 March 2025 (212 days) ¹					
Scenarios		Likely scenario expectations (Base Case + 1 000MW: 14 000MW UCLF)		Actual performance	
Number of LS days OCGT costs		21 Days R 10.3bn		13 Days R12.4bn ²	
Highest stage of LS		Stage 1		Stage 6 (23 hrs)	
Month	Peak Residual Forecast	Loadshedding days	Max Loadshedding stage	Loadshedding days	Max Loadshedding stage
September	29 389	1	1	0	0
October	28 928	0	0	0	0
November	28 868	1	1	0	0
December	28 398	5	1	0	0
January	28 105	3	1	1	3
February	28 486	1	1	7	6
March	28 967	10	1	5	3

- Likely scenario anticipated 14 GW of unplanned losses, however due to success of the Generation Recovery Plan, actuals ~12.5 GW during the summer period
- **Actual planned maintenance of 6 670 MW³** on average over the summer period was **in line with assumptions (~6 700 MW)**

Reflections: The continued improvement in Generation plant performance has resulted in the suspension of loadshedding for 9 months



- An **average of 11.6 GW** unplanned losses between Sept 2024 and Dec 2024 has resulted in **no loadshedding required within the period**
- Unplanned losses reached **10.9 GW** in **Nov 2024**, the **lowest average monthly** level achieved since **August 2021 (~10.7 GW)**
- **Increased unplanned losses** experienced between **Jan and Mar 2025** have unfortunately **resulted in loadshedding**. This is considered a **temporary setback**, and we continue to **focus on the Generation Recovery Plan** with the **required adjustments**

Reflections: Loadshedding was required in five instances since the start of 2025

As at 25 April 2025



Five incidents of
loadshedding
(14 days in total between
stage 2 and 6)²

3
days

31 Jan 2025 to 2 Feb 2025 (Stage 3)

Full unit failures totaling 4 665 MW at various stations, required stage 3 loadshedding over the weekend to replenish emergency reserves¹

5
days

22 Feb 2025 – 26 Feb 2025 (Stage 2 – Stage 6)

Multiple trips at various stations totaling ~4 400MW and low solar power generation (high cloud cover) required stage 2-6 loadshedding

3
days

7 Mar 2025 – 9 Mar 2025 (Stage 3)

Multiple units offline due to unplanned losses (~4 500MW) and outage slip (~1 400 MW), required stage 3 loadshedding over the weekend to replenish emergency reserves

2
days

19 Mar 2025 – 20 Mar 2025 (Stage 2)

Unit losses at various stations totalling ~2 000 MW, including supply reduced from imports (i.e. Cahora Bassa), and depleting emergency reserves, required stage 2 loadshedding to be implemented

1
day

24 April 2025 (Stage 2)

Unplanned losses from full unit failures at various stations totalling ~2 160 MW, required stage 2 loadshedding to be implemented

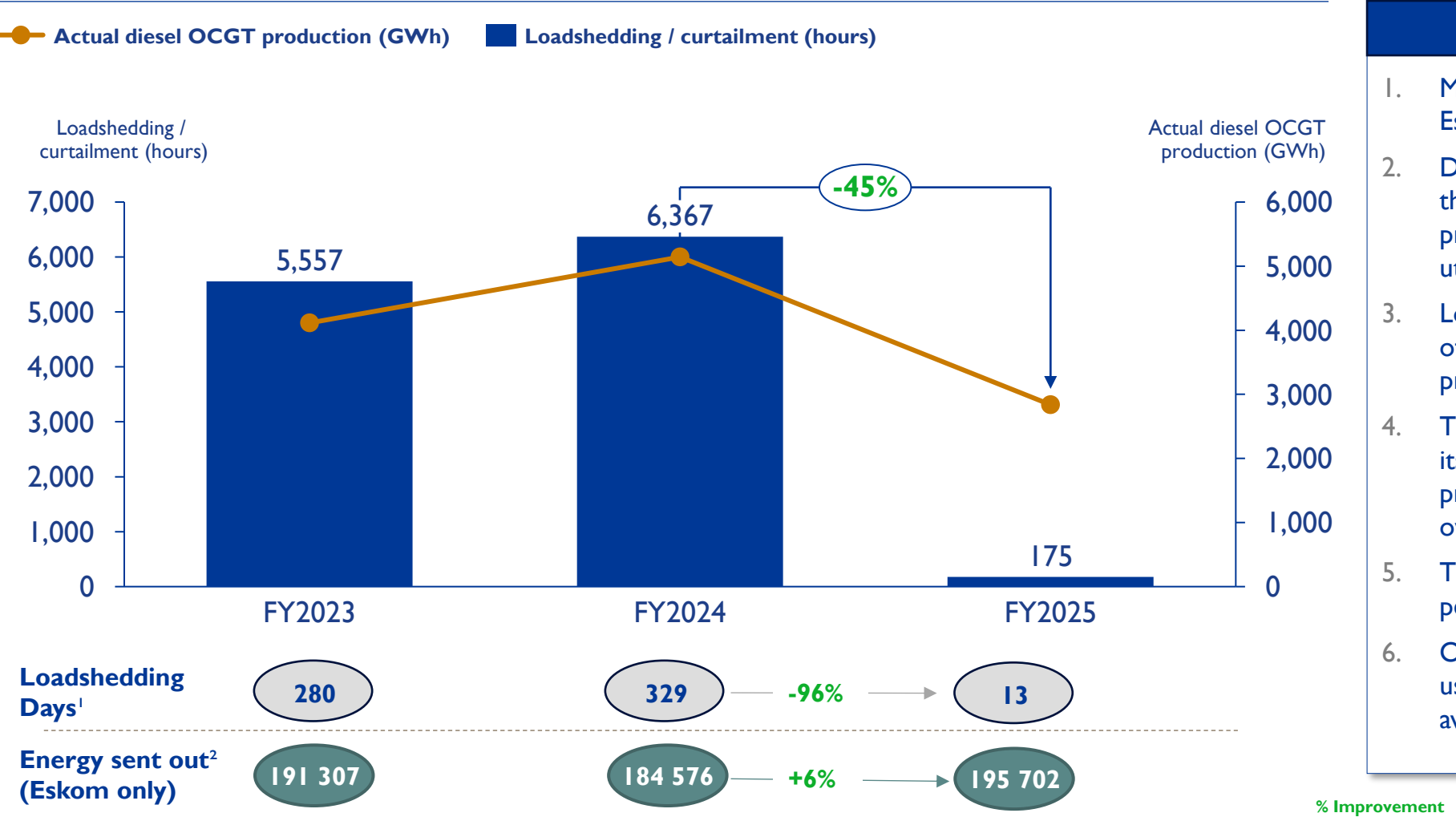
Winter outlook

- We are maintaining our focus on the Generation Recovery Plan and Demand Management initiatives to minimise loadshedding requirements over the Winter 2025 period
- In the event the need arises, our approach is to minimise the impact of loadshedding on the economy through implementing loadshedding over weekends or outside business hours where possible

¹Footnote 1. Reserves referring to water and diesel 2. If UCLF is above the base of 13 000 MW, the risk for loadshedding becomes very high as emergency reserves rapidly decrease. Days calculated over calendar dates.

Despite the setbacks, Eskom supplied South Africa with more electricity and reduced loadshedding without excessive use of diesel – an improvement in operational performance

Diesel OCGTs utilisation performance FY23-FY25 (Eskom + IPPs)



- Key Insights
- More energy was produced in FY2025 by Eskom than in the previous two years
 - Diesel open cycle gas turbines were utilised the least in FY2025 compared to the two previous Financial years (45% reduction in utilisation vs FY2024)
 - Loadshedding in FY2025 (in hours and days of loadshedding) was lower than the previous two years
 - This means that Eskom, through improving its generation performance, was able to provide electricity to SA without an overreliance on diesel
 - This is a clear sign of improved operational performance
 - OCGTs are part of the energy mix and are used to manage peak demand periods to avoid or minimise loadshedding

Source: Eskom, as at 31 March 2025; Note 1. The loadshedding days refer to days on which there was loadshedding or curtailment on any part of the day; 2. Excluding IPPs and Imports, Eskom only energy
Acronyms: OCGTs - Open Cycle Gas Turbines; IPP – Independent Power Producer

Winter 2025 Outlook - No loadshedding expected for unplanned outages below 13 000 MW, stage 2 expected if unplanned outages reach 15 000 MW



Change to outlook

Winter 2025 – 1 April to 31 August 2025 (153 days)							
Scenarios		Base Case: 13 000 MW UCLF		Base Case + 1000MW: 14 000 MW UCLF		Base Case + 2000MW: 15 000 MW UCLF	
Number of LS days OCGT costs		0 Days R 0.7bn		1 Day R 2.1bn		21 Days R 4.8bn	
Highest stage of LS		-		Stage 1		Stage 2	
Month	Peak Residual Forecast	Loadshedding days	Max loadshedding stage	Loadshedding days	Max loadshedding stage	Loadshedding days	Max loadshedding stage
April	27,739	0	-	1	1-2	8	2
May	29,259	0	-	0	-	5	1
June	30,777	0	-	0	-	0	-
July	30,872	0	-	0	-	5	1
August	29,599	0	-	0	-	3	1

- Our Winter 2025 unplanned breakdown assumptions are revised downwards by 1 000 MW- 2 000 MW against Winter 2024 assumptions, due to improved plant reliability. This results in **maximum stage 2 loadshedding expected¹** (compared to the previous Winter forecast, which predicted up to stage 5)
- Stage 2 incident in April 2025 was due to two units that failed to return as committed**, exacerbated by Medupi 5 trip. This pushed the UCLF momentarily beyond 15 000 MW indicated in our winter 2025 outlook
- It is important to note that the **Weekly System Status reports are not a loadshedding forecasts**, but reflects potential reserve shortfalls without considering the available short-term reserve and demand side levers

Note: 1: Eskom may have to implement higher stages for shorter periods to minimize loadshedding on weekdays; 2: Average daily planned outages as per Capacity Plan 17 April 2025 BEFORE STERF.; 3. [Generation Daily](#)

Key takeaways and reflections for the Winter 2025 Outlook

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Group Chief Executive

Update on the Generation Recovery Plan

Bheki Nxumalo
Group Executive - Gx

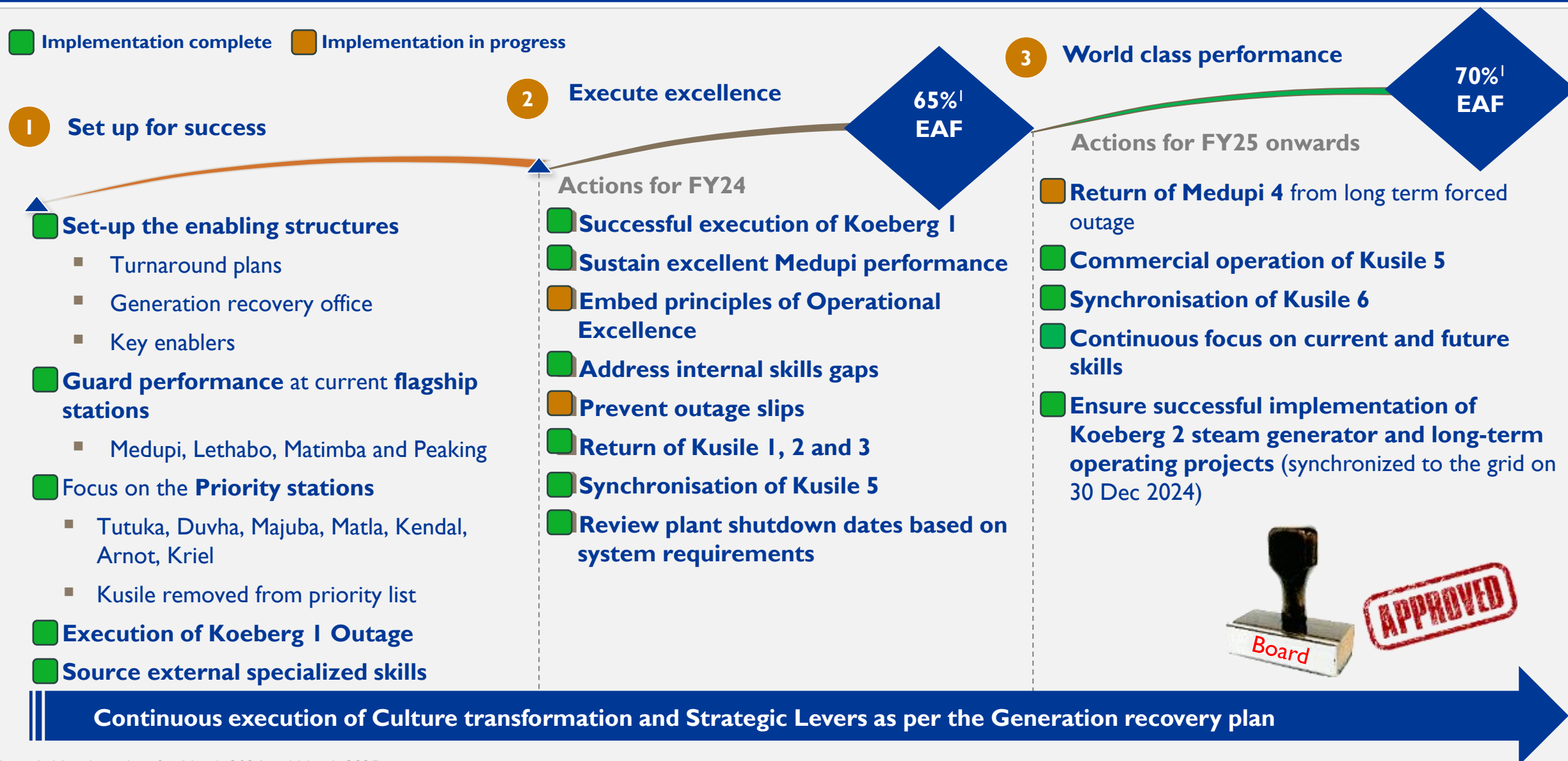
Update on Load Reduction and Demand Management initiatives

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Group Executive - Dx

Eskom's direction of travel to achieve long term success

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Group Chief Executive

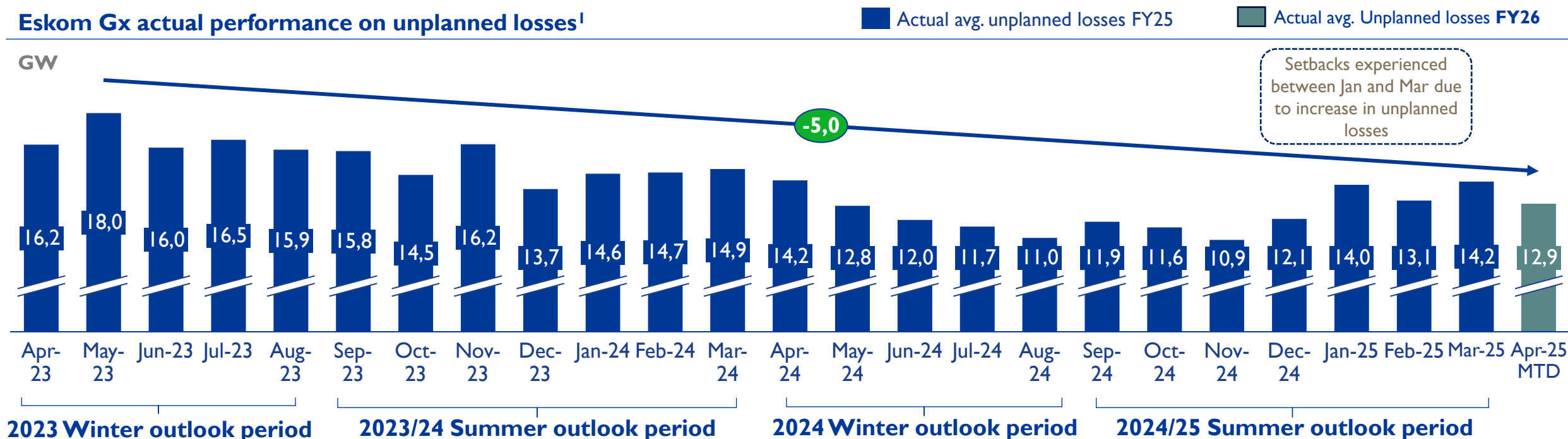
Generation continues to drive the Recovery plan initiatives which have resulted in improved performance



There is a consistent reduction in unplanned load losses on the back of disciplined execution of maintenance



Eskom Gx actual performance on unplanned losses¹

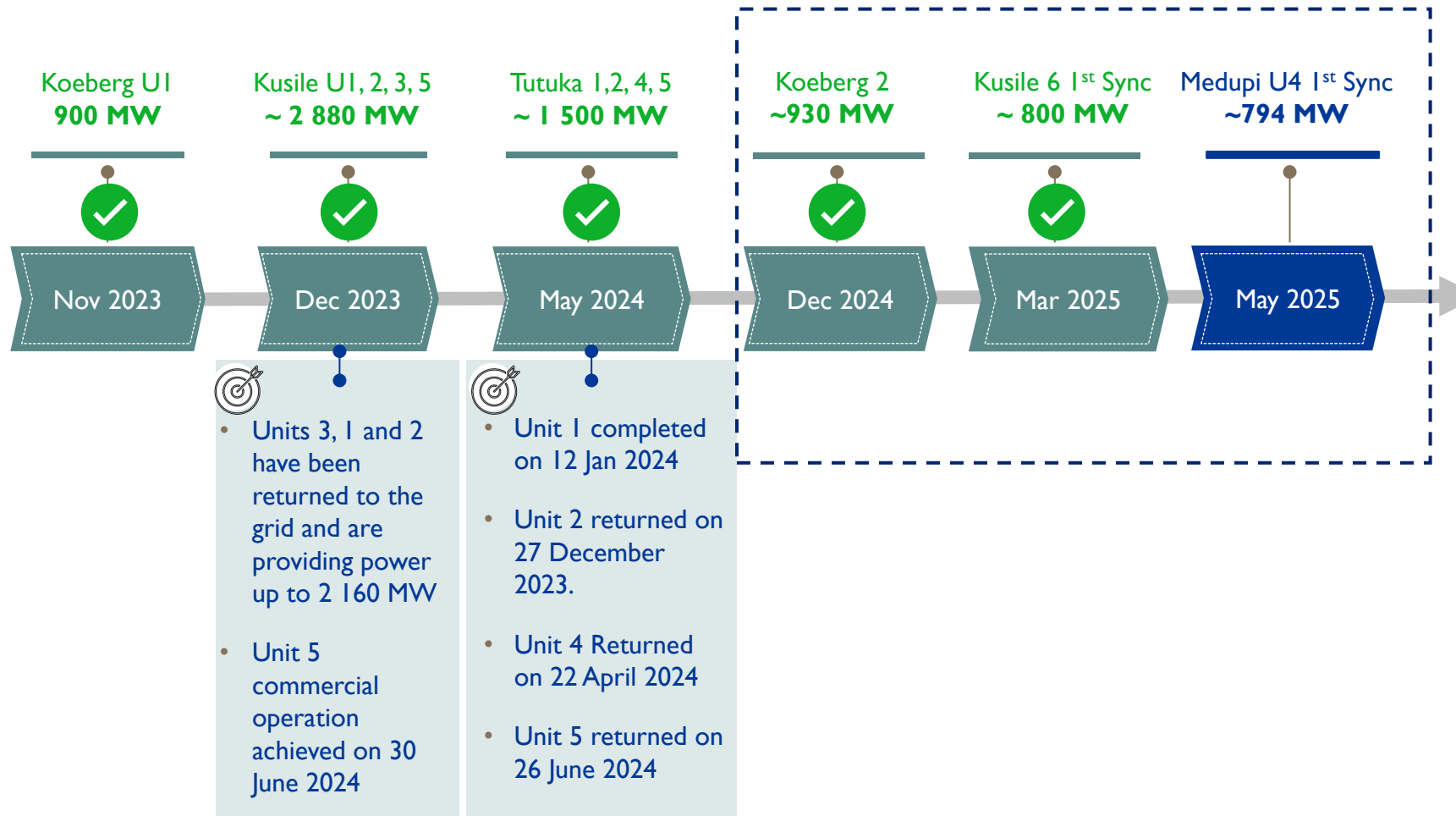


- **Downward trend** observed in unplanned losses, specifically driven by **five of the priority 8 stations** (Tutuka, Kendal, Majuba, Duvha and Kusile)
- **Unplanned losses of ~13.7 GW between Jan and Mar 2025** was as a result of a **lethal combination of undesirable events** e.g. clustering of boiler tube leaks (BTL), several other breakdown incidents (PLLs, trips), higher than normal rainfall and delayed returns from planned outages (~1.2 GW)
- Comparing the **unplanned losses in May 2023 (18 GW) vs April 2025 MTD (12.9 GW)** shows an **improvement of approximately 5 GW**, which further illustrates that the **reduction in loadshedding is materially on the back of improved plant performance**
- **Eskom plant availability for FY25 averaged 61%** (significant improvement from **54.6% for FY24**) and achieving above 65% in July and August 2024

The additional ~794 MW capacity expected by May 2025 will contribute to security of supply



Units on long term outage - return to service dates



Key insights

Despite some delays, three units are still expected to return to service by the end May:

- **Koeberg U2** was synchronized to the grid on 30 December 2024
- **Koeberg U1** is currently on outage for the second phase of long-term operations projects and is expected by July 2025
- **Kusile U6** was successfully synchronized to the grid on 23 March 2025 at 16h45. The focus is now on ensuring the unit achieves commercial operation by end of September 2025
- **Kusile U2 & U3** outages have been **completed** to reinstate main stacks and FGD. **Kusile U1** is currently on outage and will return in June connected to the main stack
- **Medupi U4** is expected to synchronize by May 2025

Over and above the commissioning of new units and returning units from long term outages, continued operation of five coal stations¹ up to 2030 is crucial to support with security of supply

Generation needs to leverage and re-enforce the performance gains made in the last year, however Gx must also do things differently for sustained performance



It must be acknowledged that there has been a marked improvement in plant availability such that chronic loadshedding has declined i.e. frequency and severity. However, there is an ongoing need to deepen continuous improvement to entrench a **systems, people, process mindset**.

Things to be Re-enforced	Things that will be done differently
 Entrench “Systems, People, Process” mindset • Refocus both supervision on routines and on service providers • Drive the operational excellence program to embed the culture  Additional support required • Typically, change programs over several years call for constant a re-focusing the teams • New challenges may often require additional support to overcome the culture change inertia	 Leadership development focus – Fast tracking/prioritizing the intervention to equip managers  Resources – Fast track resourcing to augment at management /supervisory/technical to close the gaps based on identified station gaps  Procurement Challenges of long lead spares - Devise new and faster ways to effect procurement on long lead items. Now that we know the challenges in the outage space further engagements to happen with Central procurement

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Eskom's direction of travel to achieve long term success

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Group Chief Executive



Despite supply exceeding demand, load reduction is necessary at times to protect the network and people

Loadshedding

Generation



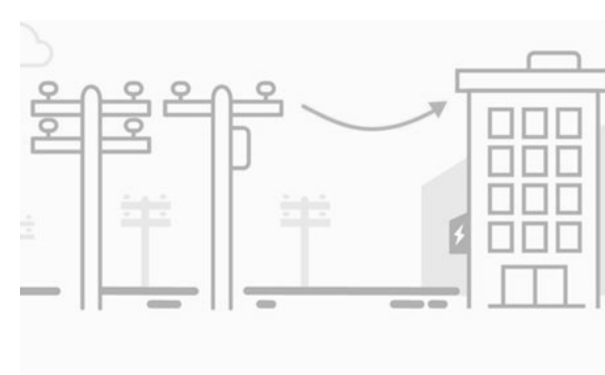
- When there is **insufficient generation capacity** to meet demand
- Loadshedding implemented to **protect the country** from a black out

Transmission



Load Reduction

Distribution



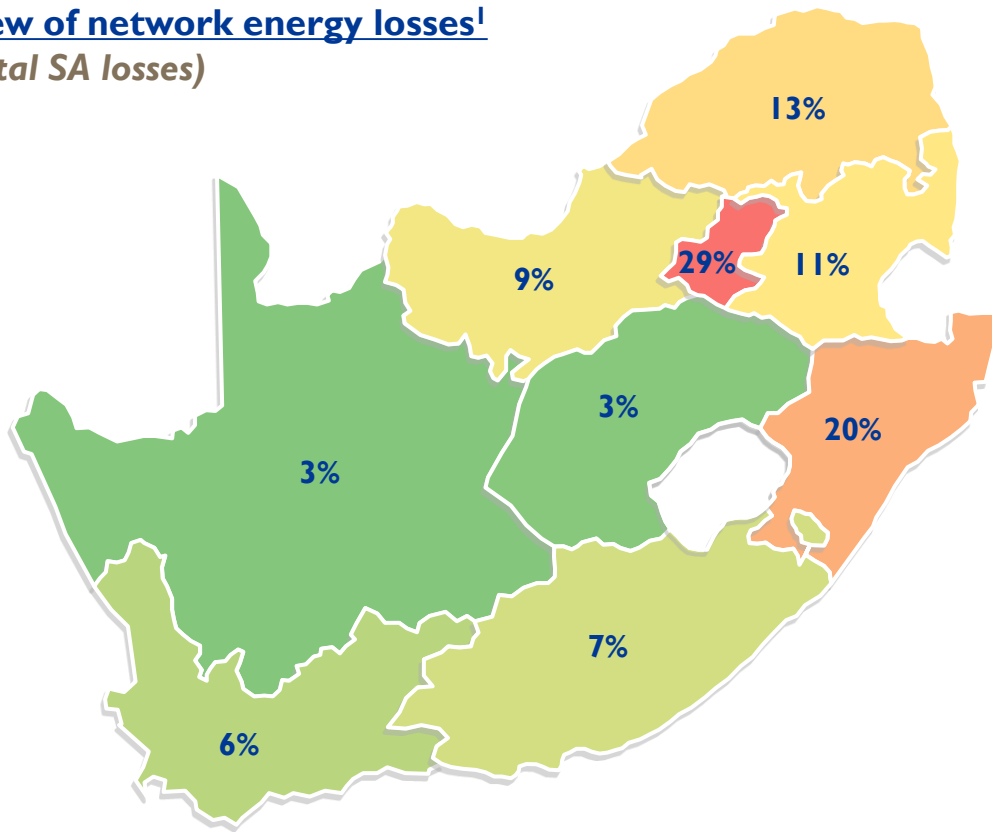
- When the **customer demand is higher than what the local equipment can withstand**
- Load reduction implemented to **protect equipment** (transformers) and **people** (explosions)

Eskom is working together with SALGA and the Ministries to resolve the structural challenges facing the distribution industry

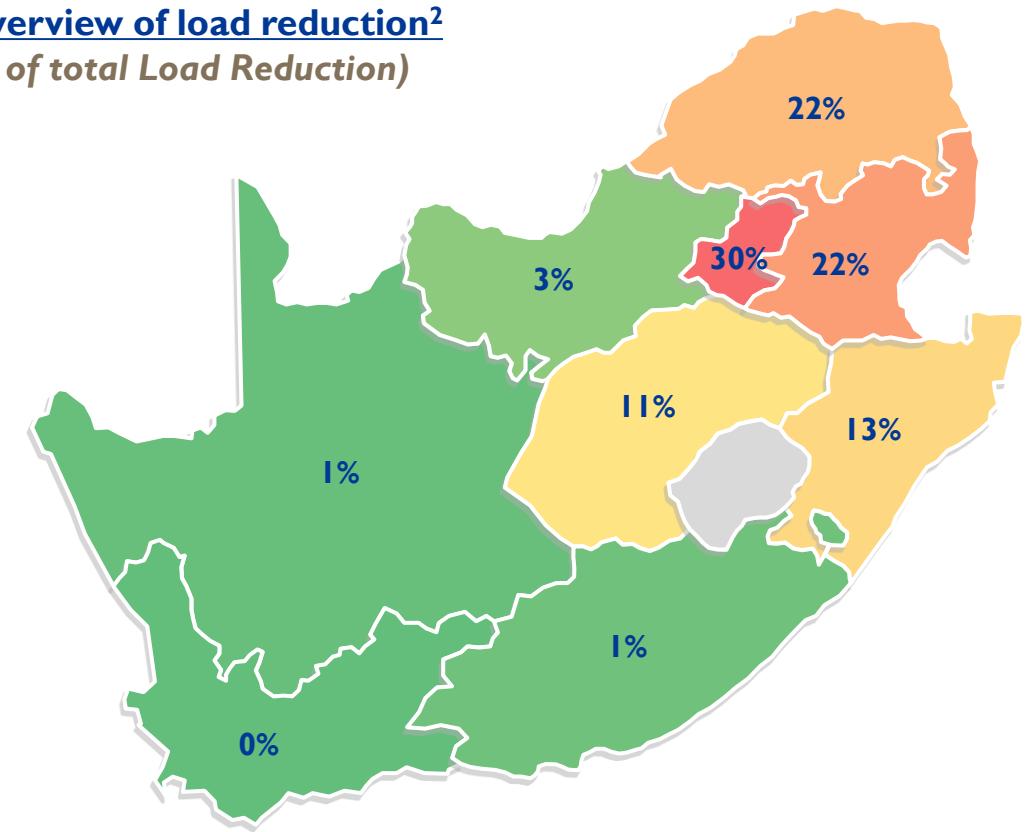
WE NEED COMMUNITIES TO HELP US PROTECT OUR EQUIPMENT FROM CRIMINALITY

Load Reduction is primarily implemented in provinces with high levels of distribution energy losses

Overview of network energy losses¹
(% of total SA losses)



Overview of load reduction²
(% of total Load Reduction)



- **Load Reduction** is a **critical** and **essential proactive measure** of **asset protection** to **reduce load** and **prevent overloading**
- **Load Reduction** is **influenced by overloading** (linked to **theft** and **condition of distribution network infrastructure**)
- **Gauteng** experiences the **highest Load Reduction** on average with combined morning and evening peak Load Reduction averaging 179 MW, followed by **Mpumalanga** (~132 MW) and **Limpopo** (~103 MW)
- **Several interventions continue** to be driven to **minimise the impact of Load Reduction** on South Africa

Technology



Eskom is driving technological interventions

- Roll out of **~7.2 million smart meters** over the next 3 years to reduce losses and **enable load limiting** as opposed to load reduction
- **Accelerating Distributed Energy Resources (e.g. microgrids)** to alleviate constraints on network

Government support



Eskom is **working closely with government** where partnership is required, specifically on:

- Accelerating the roll out of **smart meters within municipalities**
- Reduction of **technical and non-technical losses within municipalities** and auditing of networks
- Acceleration of process adoption for **Accelerating Distributed Energy Resources connection within municipalities**

Public programmes



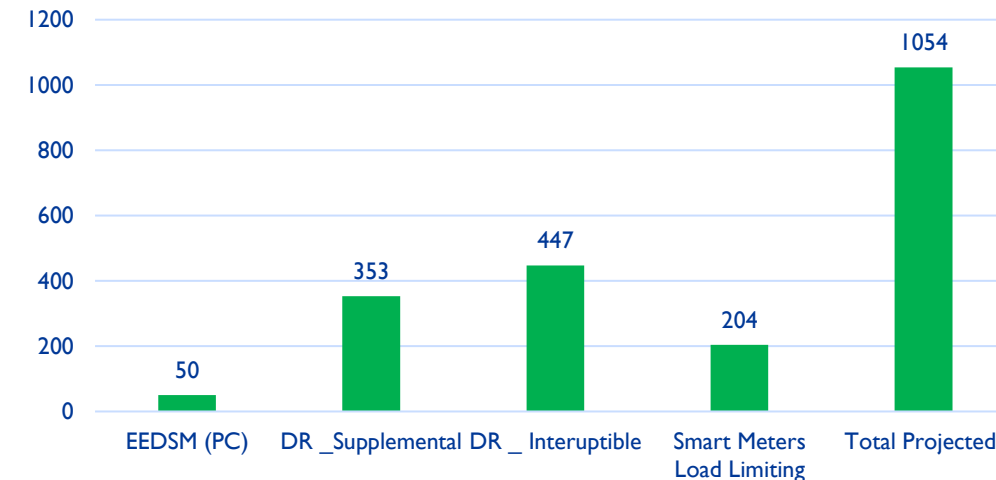
Continued support from the **public** is **crucial** to minimise load reduction:

- Reduce load when the system is constrained
- Practice energy efficiency
- Participate in demand reduction programmes where applicable

The Distribution Demand Management Programme is being implemented to deliver ~1 GW over the winter period

- **Demand Side Management (DSM)** - Incentive programme targeting evening peak load management and energy efficiency through technological intervention.
- **Supplemental Demand Response (SDR)**– Flexible evening peak load reduction programme, participating customers reduce load when called upon.
- **Interruptible agreements** – Electricity agreements with participating customers.
- **Smart meters -Load Limiting** – Emergency capability, limits customer supply to form 60/40 Amps down to 5 Amps.

Winter Outlook - Demand Management MW Capability



The implementation of Demand Management provides the following benefits:

Optimising the national system profile via demand management products

Reduce the usage of diesel costs especially during evening peak times.

Optimise cost of energy through transfer pricing during peak periods.

Mitigation tool to reduce the impact of load shedding

10% of all Government Buildings (>1 000 m²) to display an Energy Performance Certificate (EPC). Eskom has committed to comply with EPC requirements.

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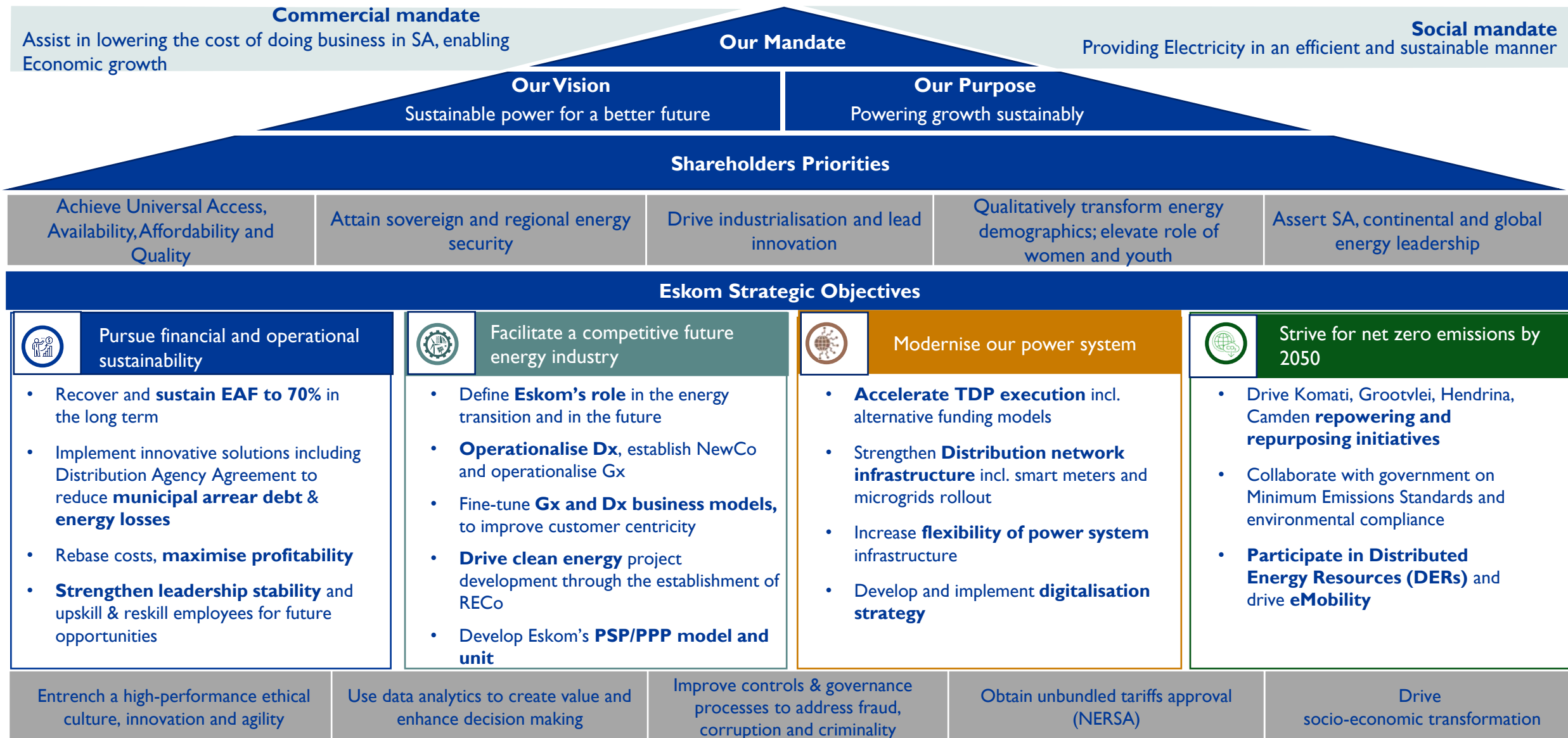
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Eskom's direction of travel to achieve long term success

Dan Marokane
Group Chief Executive

Our strategy pivots Eskom into a sustainable and competitive Company while leading the transformation of the Electricity Supply Industry



OUR VALUES:



Zero Harm



Integrity



Innovation



Sinobuntu



Customer Satisfaction



Excellence

Eskom is focusing on key strategic areas to become an investable, sustainable and competitive company while ensuring security of supply

Key focus area	Description	
Turnaround and loadshedding	- Implementing operational recovery, strengthening governance to future proof the organisation (ending loadshedding, reducing costs, investing in future expansion) Enabling energy security, growth and long-term sustainability to the benefit of South Africa and sub-Saharan Africa	
People and performance	- Providing employees with a vision and purpose to their work which creates an environment for success - Re-focussing on people through leadership with a high challenge, high support culture Reversing complacency and taking action to address systemic issues	
Long term sustainability	- Developing a meaningful pipeline of clean energy projects (~5.9 GW by 2030) - Accelerating the implementation of the Transmission Development Plan - Restructuring of electricity tariffs and rolling out smart meters for effective revenue collection, while minimising the impact on consumers and the fiscus	
Balanced transition	Pursuing Just Energy Transition strategy as a considered approach towards transitioning from high emitting sources of energy towards cleaner energy without jeopardising socio-economic welfare	

- We have seen a **positive trend in the reduction of unplanned load losses, leading to 352 loadshedding free days between 1 April 2024 and 31 March 2025**
- The Winter 2025 unplanned losses outlook has been revised downwards (1 GW – 2 GW improvement), **indicating no loadshedding to be expected if unplanned losses remain below 13GW**
- Through disciplined execution, dedication of our people and support from various stakeholders, **our Generation Recovery Plan will continue to deliver good results**
- We again **apologise** for the few **temporary setbacks**. The performance has laid a **good foundation to implement our strategy towards an investable, competitive and sustainable Eskom**
- Over the coming months, we will continue providing updates against the **implementation of our strategic initiatives**
- **We would like to thank all stakeholders, especially the Eskom Guardians for their hard work and dedication in moving Eskom towards success**

#WeCanEndLoadsheddingTogether





Question & Answer session

Solar registration fees continue to remain zero for the majority of Eskom's residential customers and include a free smart meter until March 2026



SSEG registration

SSEG including PV installations are to be registered with the relevant supplier as per NERSA requirements.

Connection Charges

- Urban Residential and up to 50kVA: No registration fees and a saving of ~R9 132 on connection charges including a free SMART meter since March 2023 until March 2026.
- Other SSEG: No increase as they are to pay last year's connection charges from 1 April 2025.

Applicable Tariffs

- Residential : Homeflex
- Urban : Miniflex
- Rural: Ruraflex
- Generators: Gen DUoS, Megaflex Gen or Ruraflex Gen

Credits for exported energy

- Gen-Wheeling, Gen-offset and net-billing rates.
- Credits for energy exported on time-of-use on the customer bills.

Non-residential or >50kVA additional scope

- Once-off application and connection fees are payable to recover the cost of technical studies and compliance checks to ensure safe grid integration.
- Payment for a smart meter which is compatible with the TOU tariff

Note : Customers with a grid-tied generator connection must comply with NERSA's registration requirements, regardless of whether they export electricity to the grid or not.

Connect Small Scale Embedded Generators (SSEG's)

legally and safely



Authorised SSEG connections ensures legal compliance and network safety. This will allow access to the following grid service benefits: Net billing (Gen-offset), Wheeling (Gen-wheeling) and Banking.

Net-billing is the credit provided to customers for energy exported into the grid.

Wheeling is the use of the network by SSEG's to sell their energy to end consumers.

Banking is the carry over of energy not used within the billing month.

Investing in a generator involves a significant financial commitment and therefore, requires careful consideration of the following key aspects:

-  Ensure compliance to legal and regulatory requirements.
-  Ensure compliance to Eskom and South African Bureau of Standards (SABS) technical & contractual requirements.
-  Ensure compliance with the safety regulations / policies that ensure the safety of people, animals, and equipment.

For more information visit
<https://www.eskom.co.za/distribution/small-scale-embedded-generators/>