

MYPD 6 Application

**NERSA Public Hearings
Bloemfontein**

25 November 2024



Background

- ❑ The Multi-Year Price Determination (MYPD) 5 revenue determination period comes to an end on 31 March 2025
- ❑ **Revenue applications are guided by the Electricity Pricing policy (EPP), Electricity Regulation Act (ERA) and NERSA's MYPD methodology (2016)**
 - Must enable an efficient licensee to recover the full cost of its licensed activities, including a risk adjusted return
 - Ensure Eskom's sustainability as a business and limit risk of excess or inadequate returns, while providing incentives for new investment
 - Eskom is required to make a compliant application in terms of the MYPD methodology
- ❑ Eskom wishes to be in a position to continue to provide an electricity service to customers
- ❑ Based on forecasts which serve as assumptions that correspond to a revenue requirement
 - **Eskom has motivated the application using the latest projections**
- ❑ Revenue determination is made by NERSA based on assumptions
 - Variances between determinations and actuals are addressed after the FY through the Regulatory Clearing Account (RCA)
 - In practice, the RCA process has risks with recovery of efficient variances 3 to 6 years after expenditure incurred
- ❑ **Have considered impact on consumer by phasing of return on assets for migration towards cost reflectivity at revenue level**
- ❑ Have made ringfenced revenue applications for Generation, NTCSA (Transmission) and Distribution
 - Expect NERSA to make ringfenced revenue determinations to facilitate unbundling
- ❑ The Electricity Regulation Amendment Act (ERAA) has been signed into law by the President on 16 August 2024, and is awaiting announcement of the effective date
 - Await NERSA transitional arrangements to plot way forward
- ❑ The Retail Tariff Plan to restructure the tariff is currently being consulted on

Mechanisms in place for Eskom financial sustainability to enable electricity service

Cost reflectivity at revenue and tariff levels

- This MYPD 6 revenue application allows for further migration towards cost reflectivity at a revenue level
- The Retail Tariff Plan application initiates the journey towards cost reflectivity at a tariff level

Balance sheet support has been provided by Government

- Has been illustrated that balance sheet support was necessary due to inadequate tariffs
- A requirement for this debt support was migration of revenue to cost reflective level
- The debt support will come to naught if tariffs do not become cost reflective
- Government services such as health, schools and security could be negatively impacted if Eskom sustainability is not addressed

Efficient Eskom cost base

- Eskom continues to strive to improve efficiencies
- Less than 50% of total Eskom costs where Eskom management has a role
- Of this 50% - many costs are contractual in nature
- Significant dependence on other regulated domains including water, diesel, fuel oil costs
- Have motivated efficient and prudent costs to meet requirements for electricity delivery

Collecting revenue that has been billed

- This remains a challenge that requires further attention
- The National Treasury debt relief programme is not resulting in any improvement in payment levels
- Leaving this situation without further intervention will result in Municipal debt level being at 35% of FY 2028 allowable revenue

For financial viability to materialise, all of these elements must deliver their components, and they must occur within a short timeframe

The guiding legislation (ERA) allows only for the recovery of efficient costs

NERSA has various requirements to ensure that only efficient costs are applied for

- NERSA requires the MYPD methodology to be followed and provides detailed guidance on how an application is to be made
- NERSA requires the prudence assessment criteria to be applied, as applications are made
- Eskom provides detailed information that supports its application

NERSA makes assessments for efficient costs

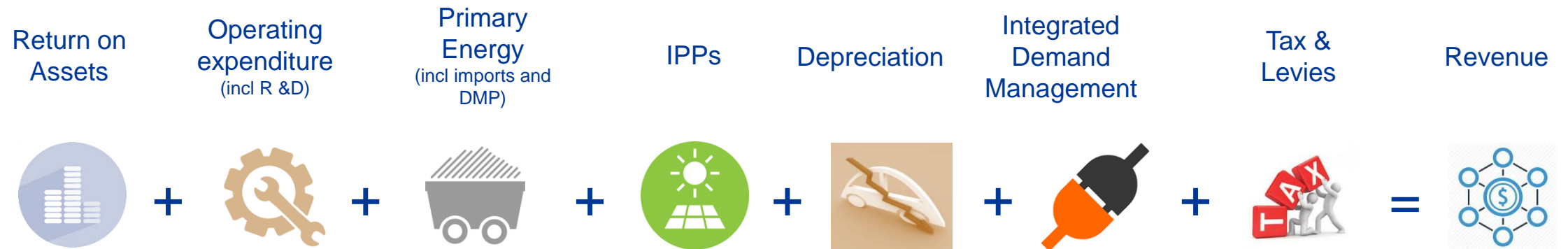
- These are based on the MYPD methodology and prudence criteria
- It is expected that NERSA will also make decisions within these regulatory frameworks and provide the relevant benchmarks, comparisons and motivations
- NERSA also provides reasons for its decision

Corruption and fraud continues to be addressed

- Eskom is making every effort to ensure that processes are in place to address possible fraud and corruption
- NERSA has provided guidance on addressing any recoveries

NERSA's MYPD methodology requires Eskom to provide costs in terms of this allowable revenue (AR) formula

$$AR = (RAB \times WACC) + E + PE + D + R\&D + IDM + L\&T$$



Return on assets = % cost of capital allowed X depreciated replacement asset value

This internationally recognised methodology, if implemented (even in a phased manner) would allow for recovery of efficient costs and a fair return

Eskom allowable revenue required to supply electricity for the period FY2026 to FY2028

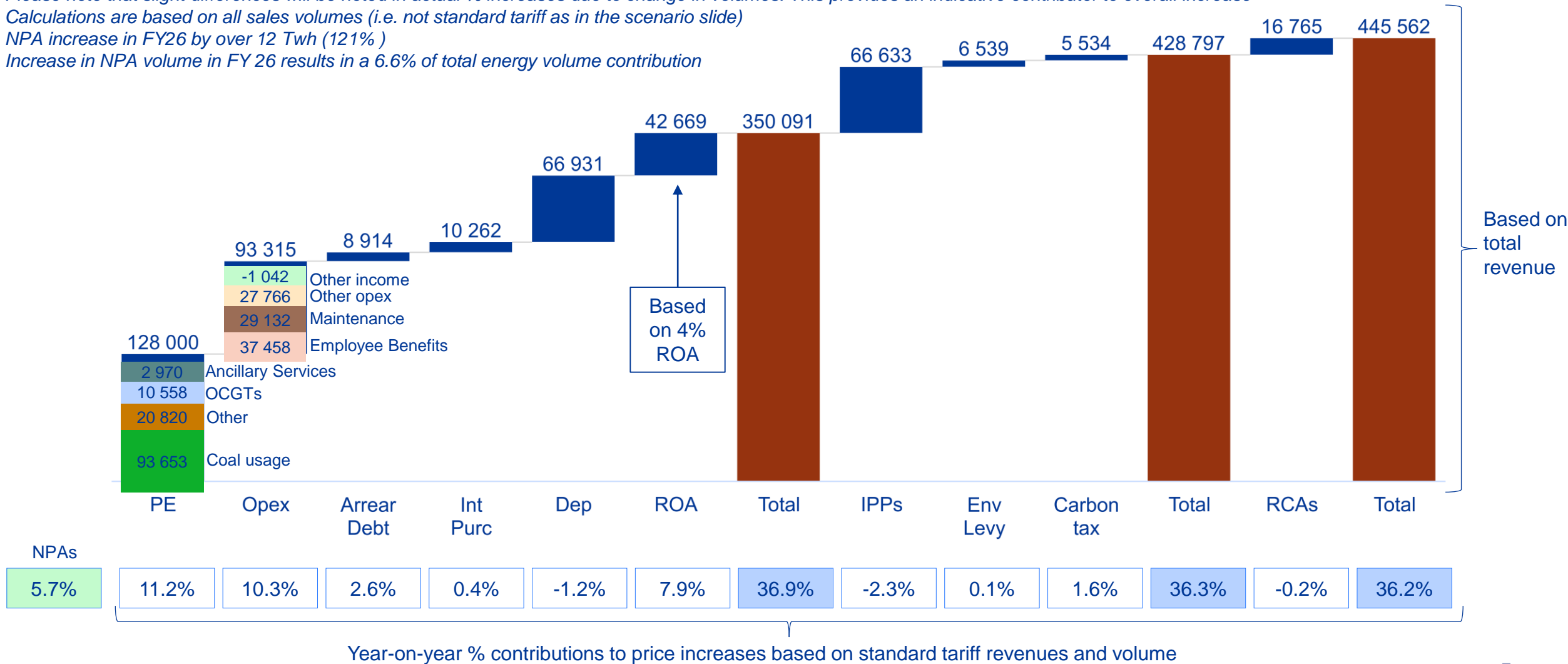


Allowable Revenue (R'millions)	AR	Formula	Decision FY2025	Application FY2026	Application FY2027	Application FY2028	Post Application FY2029	Post Application FY2030
Regulated Asset Base (RAB)	RAB		988 345	1 066 724	1 192 878	1 219 244	1 243 078	1 278 277
WACC %	ROA	X	1.58%	4.00%	5.00%	6.00%	7.47%	9.69%
Returns			15 616	42 669	59 644	73 155	92 908	123 916
Primary energy	PE	+	92 816	128 000	133 061	128 869	129 492	134 119
International purchases	PE	+	9 334	10 262	9 737	13 656	11 853	12 387
IPPs	PE	+	76 970	66 633	77 640	109 820	135 510	140 943
Environmental levy	L&T	+	6 503	6 539	6 279	5 337	4 781	4 767
Carbon tax	L&T	+	-	5 534	21 291	19 895	19 274	20 948
Arrear debt	E	+	-	8 914	9 917	10 752	12 037	13 310
Operating costs	E	+	61 442	93 315	93 834	97 864	100 152	105 100
Depreciation	D	+	73 376	66 931	69 952	77 431	79 685	85 961
MYPD6 Allowable Revenue			336 057	428 798	481 355	536 778	585 691	641 450
Add: Approved RCA/court order for liquidation	RCA		16 109	16 765	14 000	-	-	-
TOTAL MYPD6 Allowable Revenue	R'm		352 166	445 563	495 355	536 778	585 691	641 450

FY2026 revenue build-up and contributions to total price increase



- The FY26 % increase is in comparison to the FY 25 NERSA decision
- Please note that slight differences will be noted in actual % increases due to change in volumes. This provides an indicative contributor to overall increase
- Calculations are based on all sales volumes (i.e. not standard tariff as in the scenario slide)
- NPA increase in FY26 by over 12 Twh (121%)
- Increase in NPA volume in FY 26 results in a 6.6% of total energy volume contribution

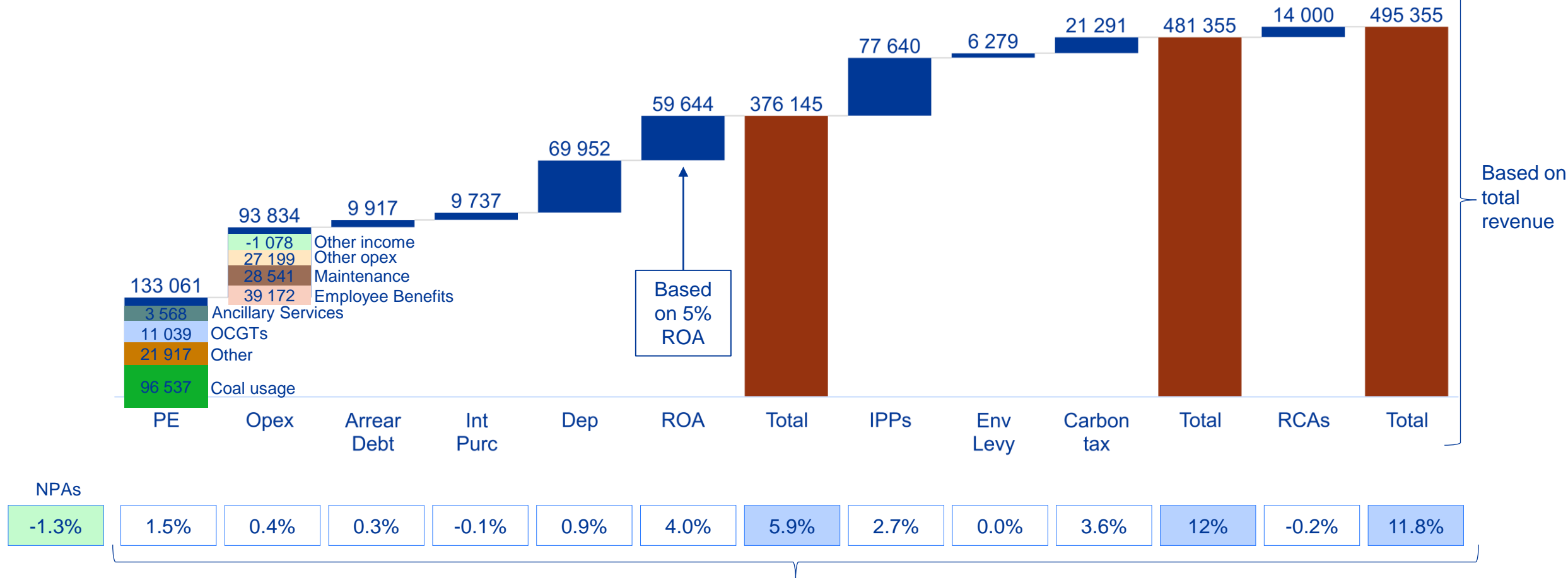


Note: 1) Primary Energy (PE) includes Ancillary Services; 2) Int Purc - International Purchases; 3) Dep - Depreciation 4) ROA - Return on Assets; 5) IPPs - Independent Power Producers; 6) Env Levy - Environmental Levy; 7) RCAs - Regulatory Clearing Account

FY2027 revenue build-up and contributions to total price increase



- The FY27 % increase is in comparison to the FY 26 NERSA decision
- Please note that slight differences will be noted in actual % increases due to change in volumes. This provides an indicative contributor to overall increase
- Calculations are based on all sales volumes (i.e. not standard tariff as in the scenario slide)

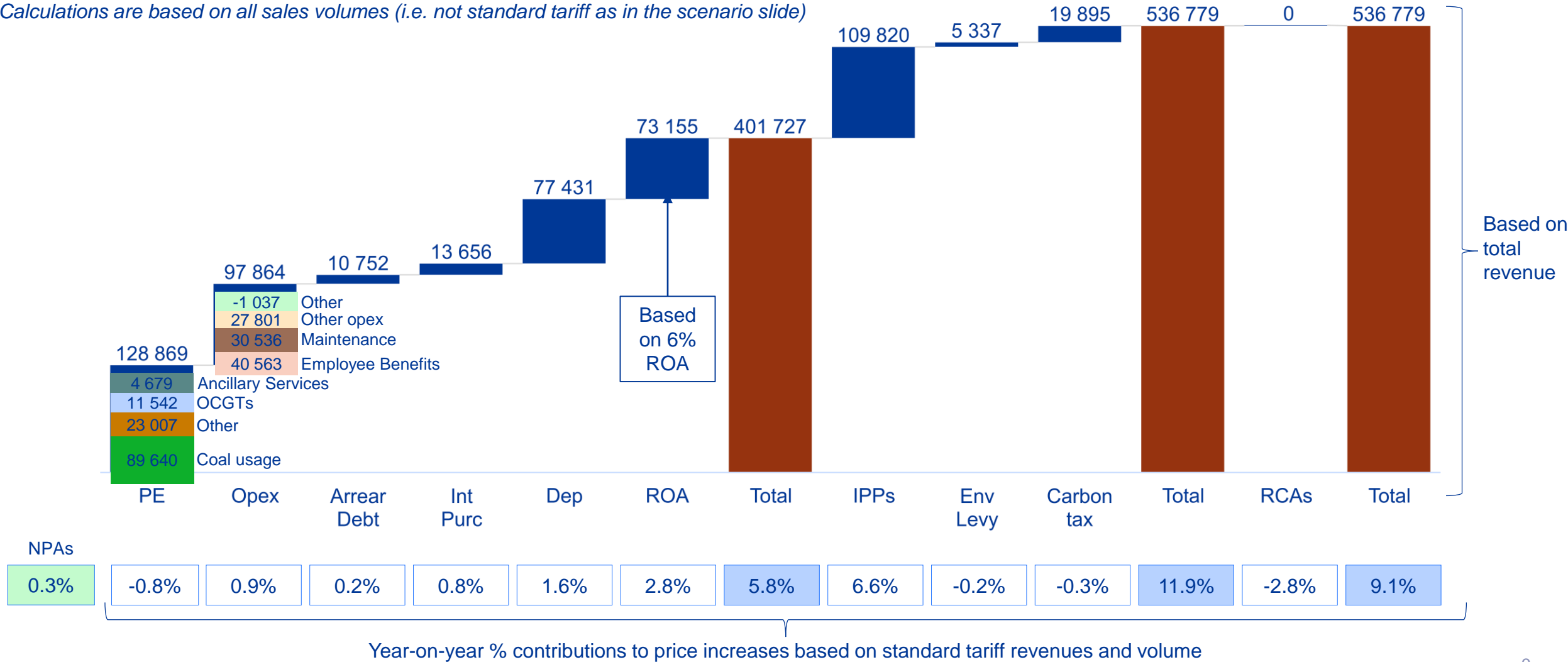


Year-on-year % contributions to price increases based on standard tariff revenues and volume

Note: 1) Primary Energy (PE) includes Ancillary Services; 2) Int Purc - International Purchases; 3) Dep – Depreciation 4) ROA – Return on Assets; 5) IPPs – Independent Power Producers; 6) Env Levy – Environmental Levy; 7) RCAs – Regulatory Clearing Account

FY2028 revenue build-up and contributions to total price increase

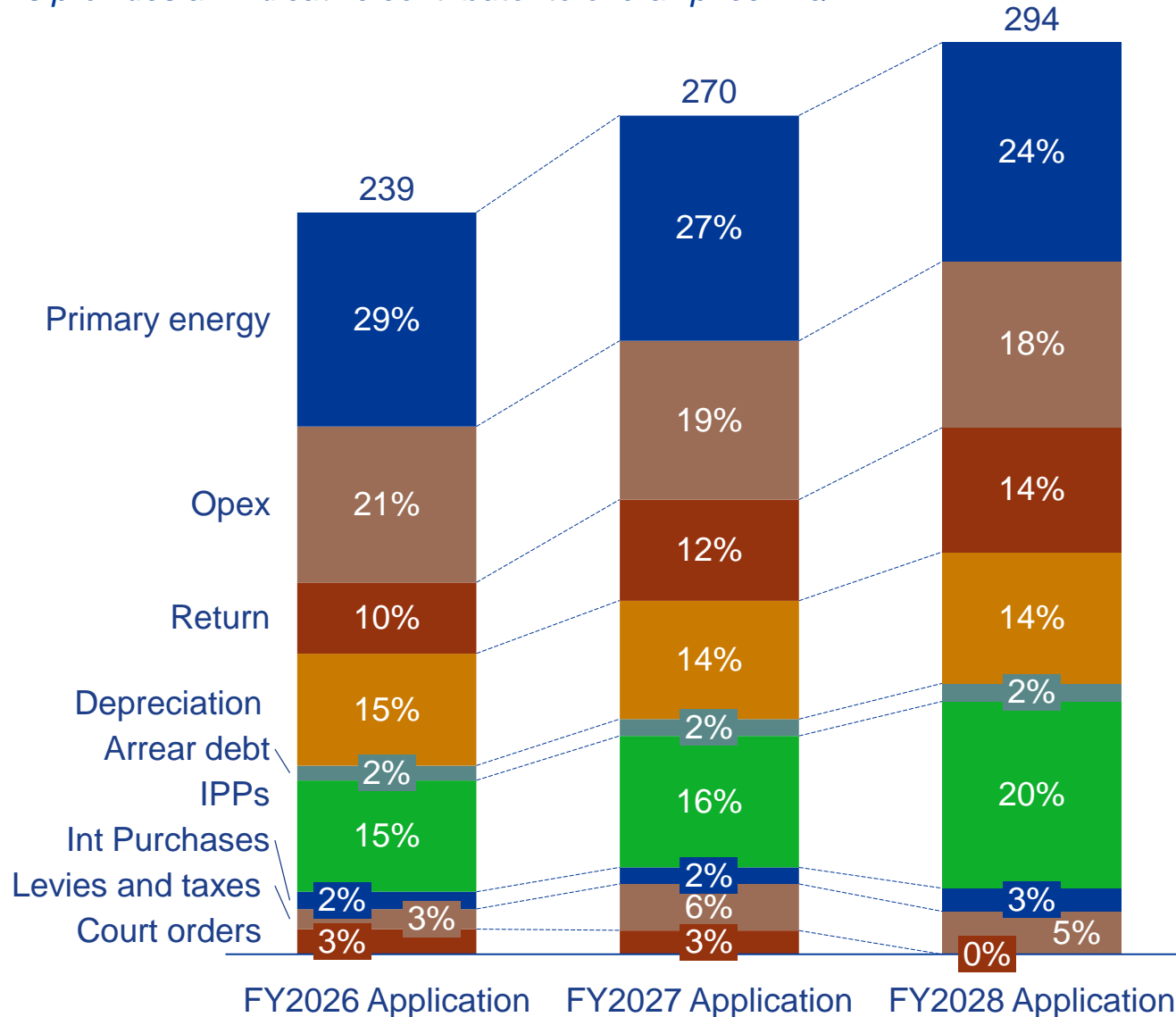
- The FY28 % increase is in comparison to the FY 27 NERSA decision
- Please note that slight differences will be noted in actual % increases due to change in volumes. This provides an indicative contributor to overall increase
- Calculations are based on all sales volumes (i.e. not standard tariff as in the scenario slide)



Note: 1) Primary Energy (PE) includes Ancillary Services; 2) Int Purc - International Purchases; 3) Dep - Depreciation 4) ROA - Return on Assets; 5) IPPs - Independent Power Producers; 6) Env Levy - Environmental Levy; 7) RCAs - Regulatory Clearing Account

Cost contributors to c/kWh and percentage of average tariff

NB: This provides an indicative contributor to overall price in c/kWh



- Eskom management has a role to play in ~50% of the total costs
 - Within the 50% - are many multi-year contracts (prudently undertaken eg coal, employment, maintenance) legislative impacts (regulated diesel, water, fuel oil costs)
- Externally decided costs are:
 - Depreciation - based on NERSA formula
 - ROA - based on NERSA formula and does not reach Eskom WACC
 - IPPs - Govt programme
 - Environmental levy
 - Carbon tax
 - NERSA Court decisions
 - Arrear debt - mainly Munics



The Government electrification programme

Facilitation of access (cost of connecting a house) to a 20A (low consumption) electricity supply.

- This complements an already subsidised tariff.



Free basic electricity (FBE)

Social grants provided directly to customers through Free Basic Electricity of 50 kWh per household per month by national government to the indigent through the Equitable Share Fund

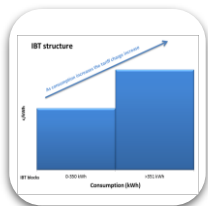
- Eskom provides FBE to customers in their area of supply as an agent for the municipalities



Subsidised Eskom tariff

For the MYPD3 period and subsequently the increase on the Homelight 20A customers (lifeline tariff) was lower than the average increase. Lower than 18% by 8% at 10%. Includes affordability subsidy (price level) and ERS subsidy (networks)

- Subsidised by direct Eskom large urban customers through the **affordability subsidy**
- The continual implementation from this lower base allows for extension of an effective subsidy
- Average Homelight 20A subsidy in FY25 was 144c/kWh of total 334c/kWh - a 43% subsidy. (Source FY2025 CTS study)



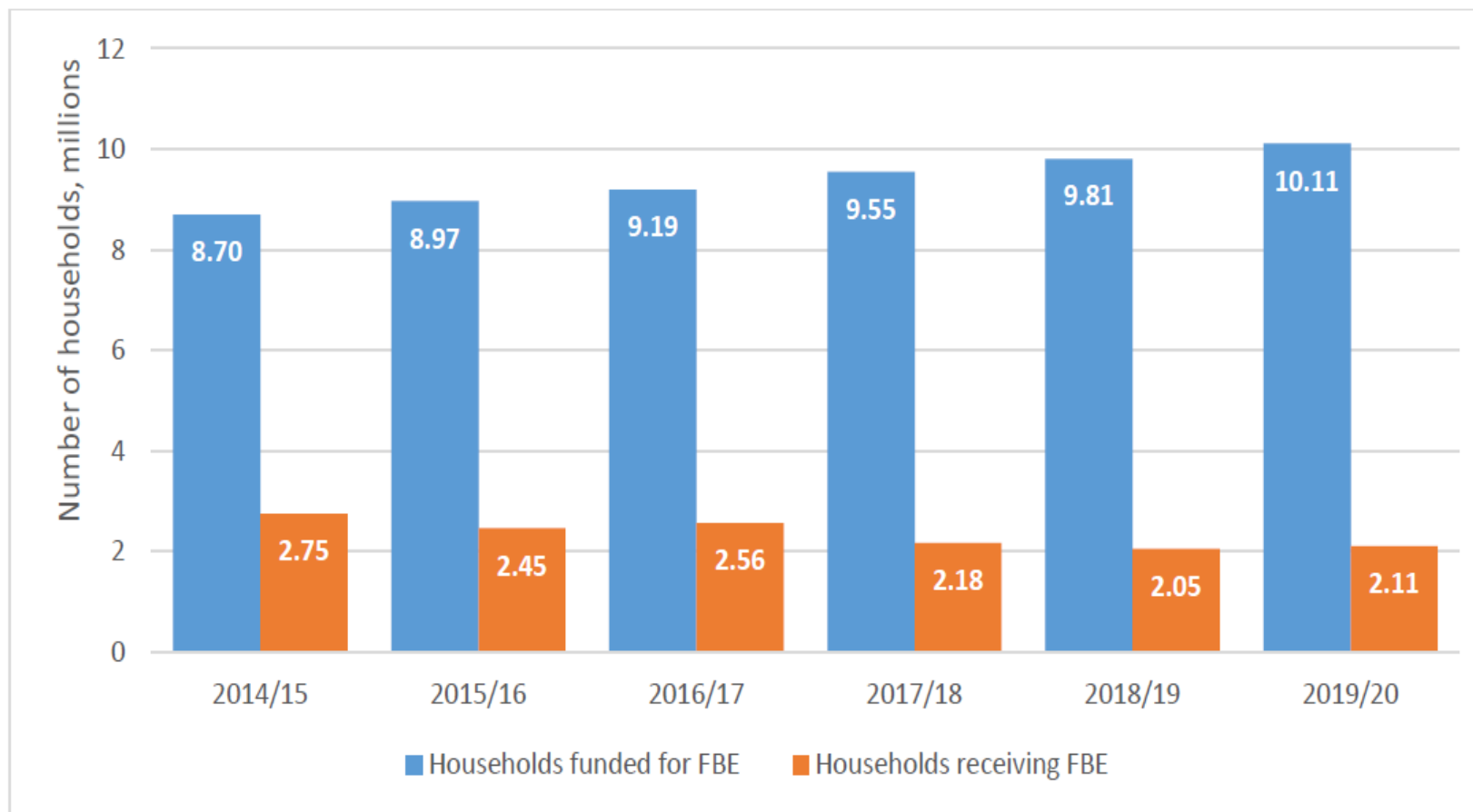
NERSA Incentive Block Rate (IBT)

The IBT was implemented by NERSA to cushion low-income households that use very little electricity.

- Eskom believes that the IBT as it is currently structured does not sufficiently target low-income households and places an unsustainable subsidy responsibility on urban customers
- IBT lowers the price and the key issue is the stepped increase above 350kWh that also makes it difficult to understand

Majority of FBE customers who should qualify are not being served by municipalities

Figure 15: Underspending in free basic electricity



Source: Ledger (2021).

- Municipalities are responsible for recognition & administration of customers who qualify for FBE for Municipal and Eskom customers
- Municipalities have only recognized ~20% of qualifying customers. Majority customers who should qualify are not being allocated by municipalities
- Eskom provides FBE to customers identified for FBE by Municipalities
- In subsequent years situation has worsened
 - FY 2021 – 1 654 160 households
 - FY 2022 – 1 753 091 households

(Source: Non-financial census of municipalities for year ended 30 June 22, published by Stats SA, 26 March 2024)

- Eskom's application is in accordance with the **2006 Electricity Regulation Act (ERA), Electricity Regulation Amendment Act 38 of 2024 and the prevailing Multi Year Pricing Determination (MYPD) methodology**. It is based on efficient and prudent costs and Return On Assets (ROA) that is increased to allow for cost of capital but still minimising the impact on consumers.
- **Eskom's generators** have again been called upon to fill the gap caused by the **unavailability of IPPs** of various technologies
- **Eskom management has a role for about 50% of electricity production costs**, which are mainly contractual and depend on regulated decisions like water and fuel. The other 50% of costs, such as depreciation, Government programmes, and taxes, are externally determined.
- **Eskom's electricity price is lower than in most countries** due to prices not covering the efficient cost of production for providing an electricity service
- Eskom is making a **total revenue application of R446bn, R495bn and R537bn for FY2026, FY2027 and FY2028** respectively
- The key drivers for the Eskom revenue application include:
 - **Enabling the strategic role** played by Eskom
 - Ensuring the **efficient costs and a fair return to Eskom** to continue to provide an electricity service in the form of Generation, Transmission and Distribution services
 - **Migrating towards** recovering an ROA equal to the **weighted average cost of capital**
 - Striving to become self-sufficient and **not continue to be dependent on support from the fiscus**
- For Eskom to be financially viable it needs:
 - Cost reflectivity at revenue and tariff level, balance sheet support by Government, cost exemplarity and collection of billed revenue

Generation Overview

25 November 2024



Reflections: Eskom's performance has improved significantly since April 2024, setting a good base to build on



243 days

of NO loadshedding

(As at 25 November 2024)



R16+ bn

In reduced diesel spend (1 April – 22 November 2024 vs same period last year)



~6GW

Reduction in unplanned load losses (16.4GW to 10.5GW)



63.1% EAF

Nov MTD - improved from 57% as at April MTD by leveraging Original Equipment Manufacturers, People and Processes



Skills Growth

Staff turnover down to 1.5%
Staff morale index up from 3.6 to 3.9
2000+ learner pipeline across Eskom, 80% technical (artisans, engineers, operators and technicians)



11.9%

Planned maintenance, compared higher year-on-year than the previous two years

(As at 20 November 2024)

■ Implementation complete
 ■ Implementation in progress

1 Set up for success

■ Set-up the enabling structures

- Turnaround plans
- Generation recovery office
- Key enablers

■ Guard performance at current **flagship stations**

- Medupi, Lethabo, Matimba and Peaking

■ Focus on the **Priority stations**

- Tutuka, Duvha, Majuba, Matla, Kendal, Arnot, Kriel
- Kusile removed from priority list

■ Execution of **Koeberg 1 Outage**

■ Source external specialized skills

2 Execute excellence

Actions for FY24

■ Successful execution of Koeberg 1

■ Sustain **Excellent Medupi performance**

■ Embed principles of **Operational Excellence**

■ Address internal skills gaps

■ Prevent outage slips

■ Return of Kusile 1, 2 and 3

■ Synchronisation of Kusile 5

■ Review plant shutdown dates based on system requirements

3 World class performance

Actions for FY25 onwards

■ Return of **Medupi 4** from long term forced outage

■ Commercial operation of **Kusile 5**

■ Synchronisation of **Kusile 6**

■ Continuous focus on current and future skills

■ Ensure successful implementation of **Koeberg 2 steam generator and long-term operating projects**

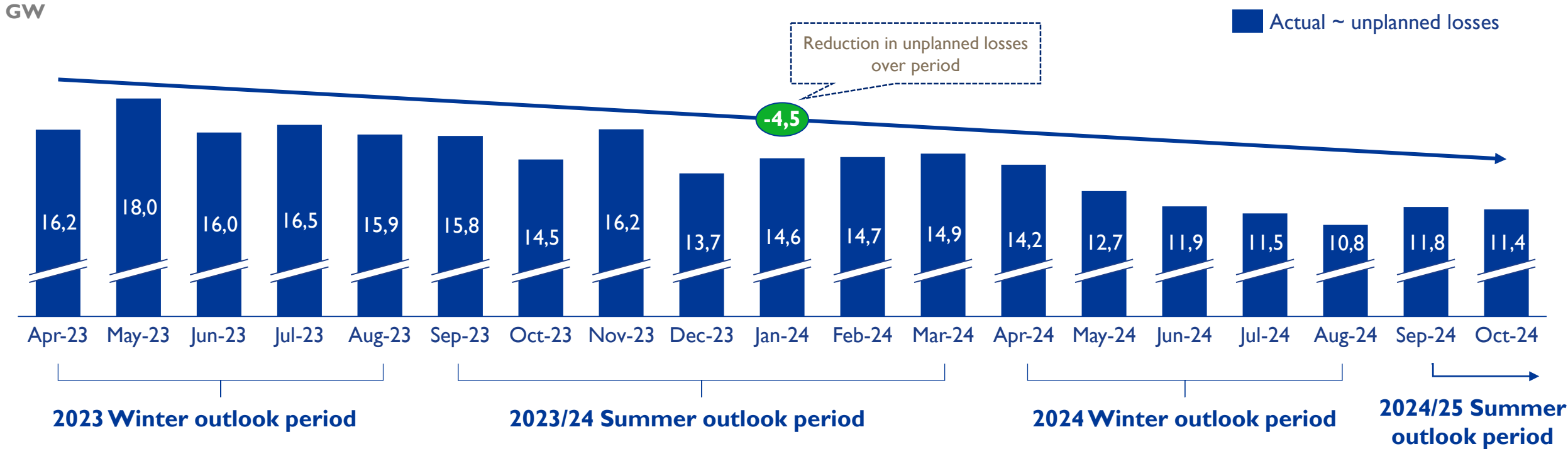


65%¹
EAF

70%¹
EAF

Continuous execution of Culture transformation and Strategic Levers as per the Generation recovery plan

Eskom Gx actual performance on unplanned losses¹

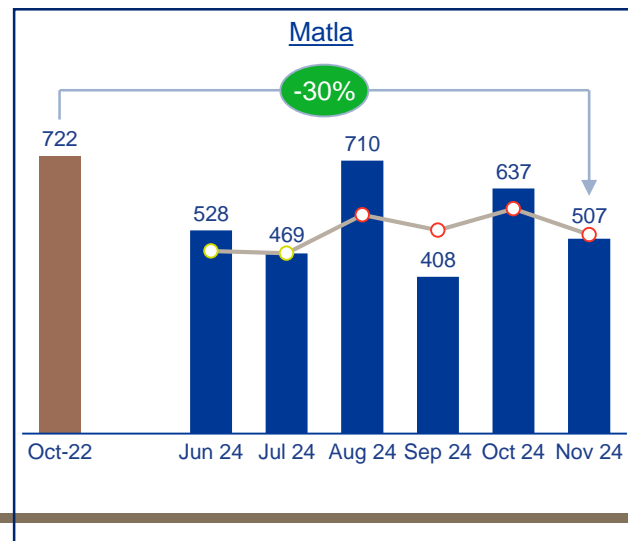
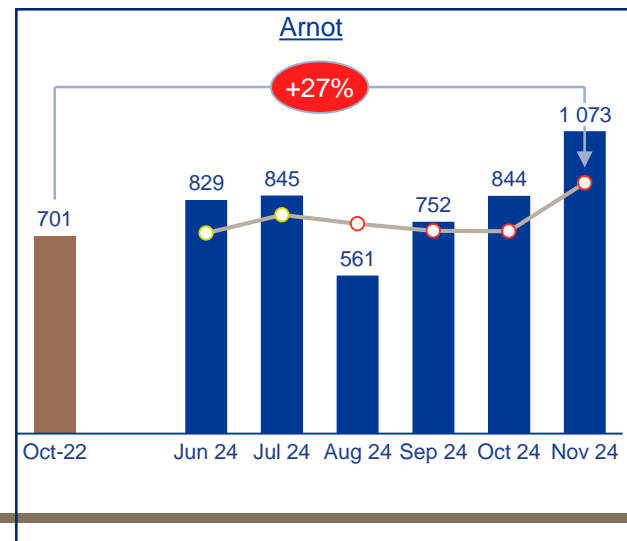
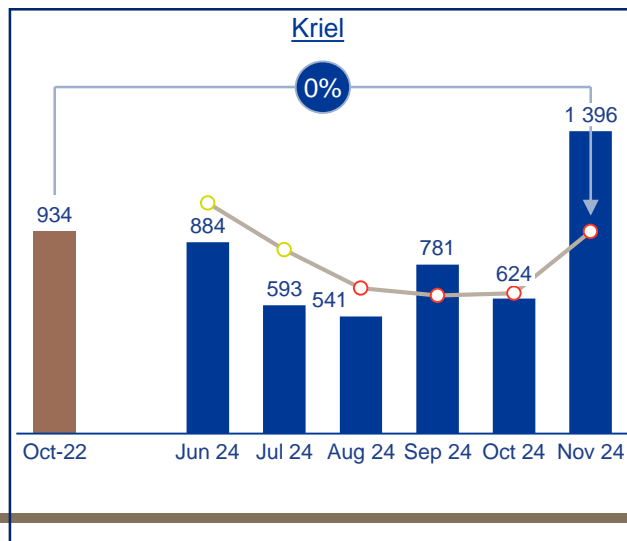
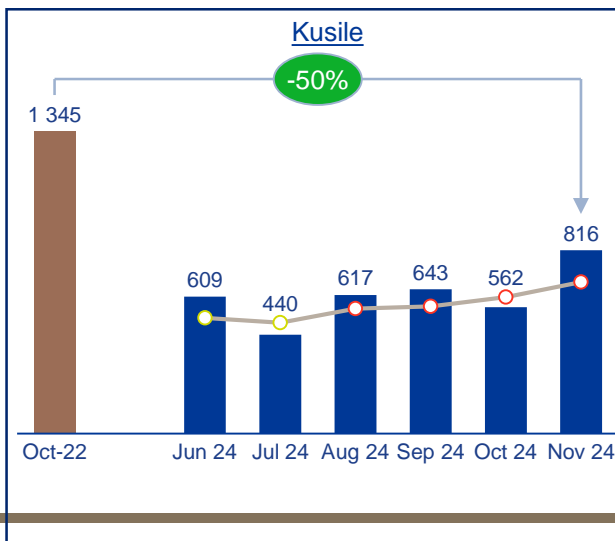
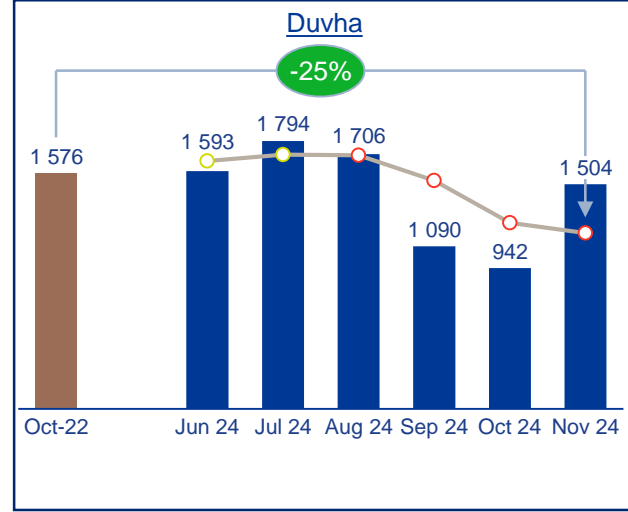
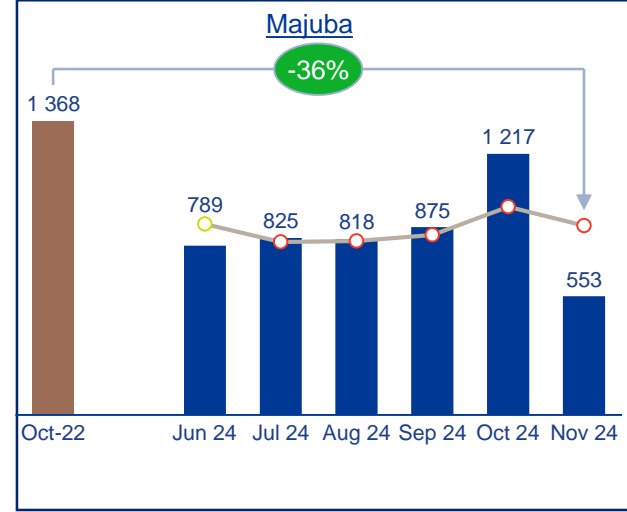
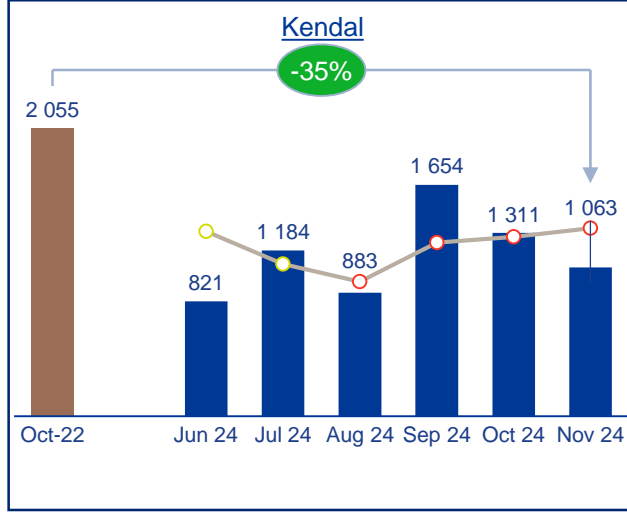
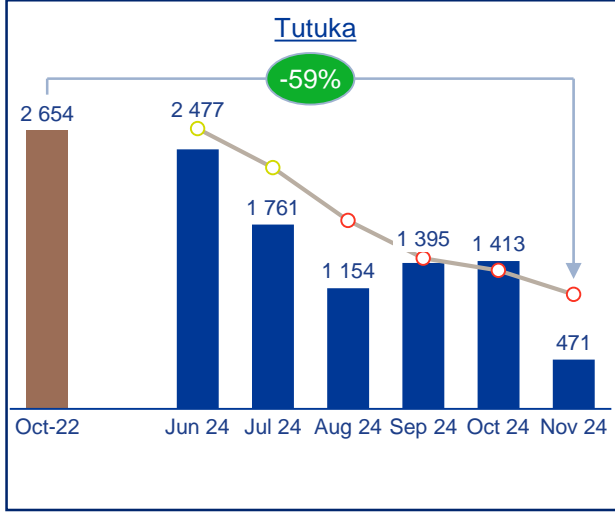


- **Downward trend** observed in unplanned losses, specifically driven by **priority 8 stations** (Tutuka, Majuba, Kusile, Kendal, Matla, Duvha, Arnot and Kriel)
- **Current unplanned losses of ~11.7GW for Oct 2024** are better than anticipated in the Summer outlook, as a result, no loadshedding is required
- Comparing the **average load losses in Sep-Oct 2023 (15.2GW) vs. same period 2024 (11.8 GW)** shows an **improvement of approximately 3.4GW**, which further illustrates that the **reduction in loadshedding is a result of improved plant performance**



Total Unplanned (UCLF and OCLF) 6-month trend against base (Oct-22)

—○— 3-Month Moving Average (3MMA)

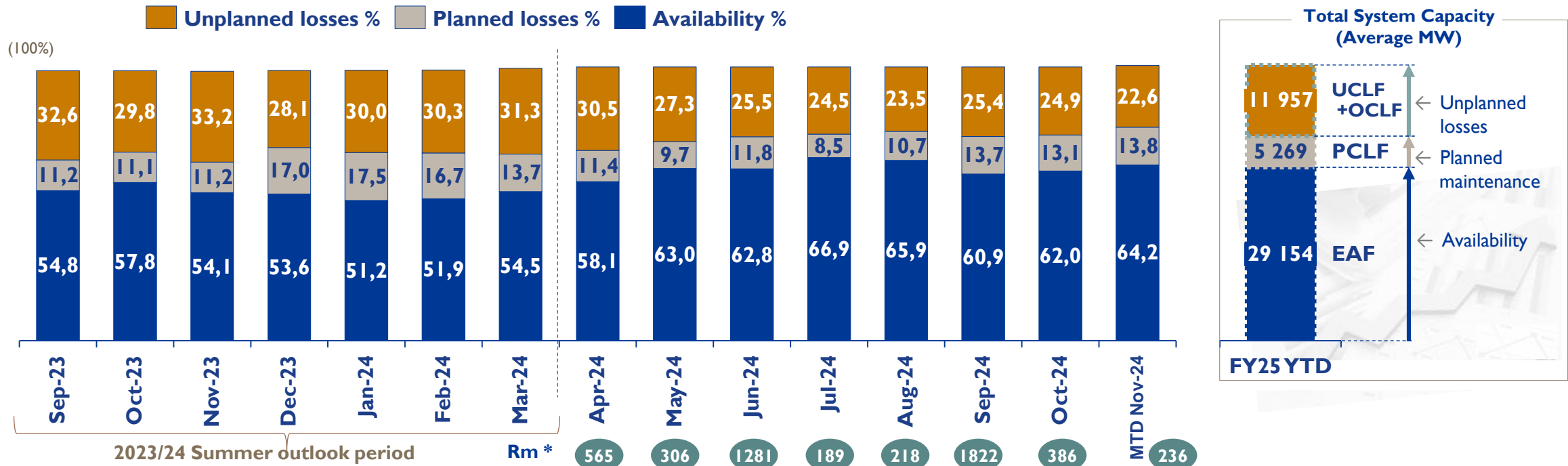


10% increase in plant availability in just 12 months – billions saved in diesel



xx Denotes MTD figures for Eskom Diesel spend

Gx overview of monthly and YTD performance

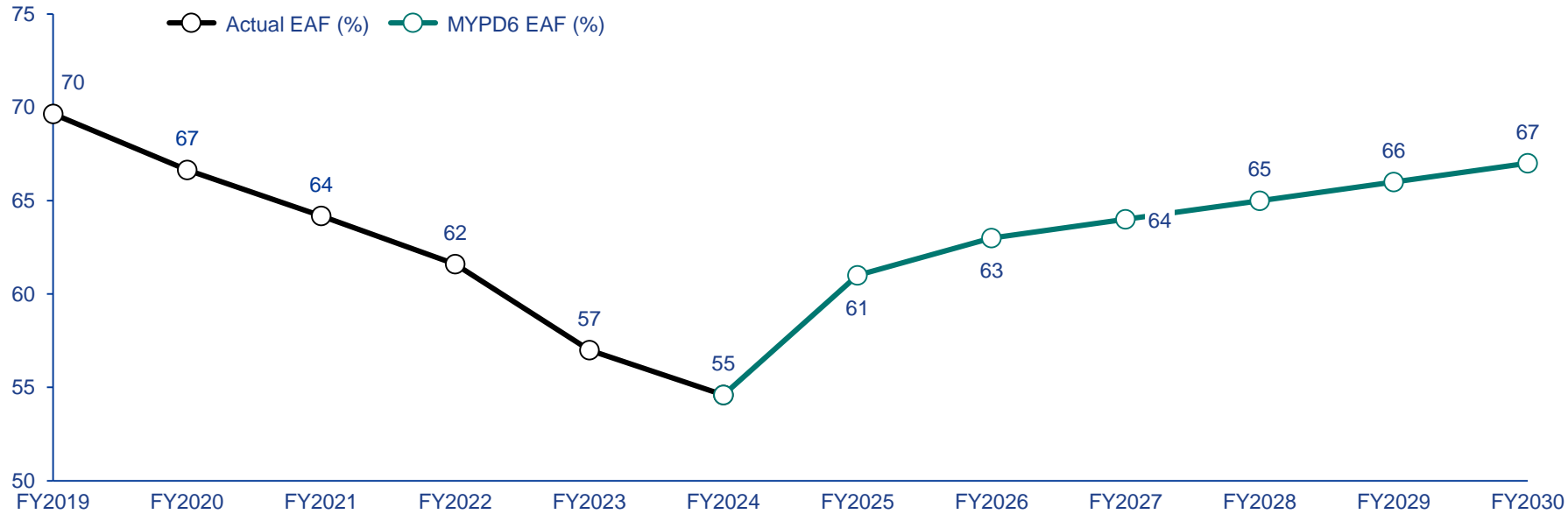


- Eskom Generation’s **plant availability** has been **trending upwards**, since the **beginning of FY25**, supported by **decreasing unplanned losses**
- The increased availability has resulted in **decreasing spend** on **expensive OCGT generation** – OCGT’s are part of the energy mix utilised for meeting peak demand as required by the System Operator
- Generation has **been able to maintain the unplanned losses** below ~14 000MW throughout the winter period (to date) **while leveraging the improved performance** to conduct additional **short-term PCLF**
- **Two (Kendal & Kriel) out of three stations (incl. Tutuka) that have performed well in the last 6 months are led by women**
- **The fleet is in a more stable setting** going into the summer period of 2024, **compared to the summer of 2023**

FY2025 – FY2030 MYPD6 Gx plant performance assumptions



Plant performance (%)



- The realistic plant performance figures were used for MYPD6 application purposes.
- However, Generation is still working towards achieving its Recovery Plan commitments.
- FY2025 Year-to-date EAF is at **63.1%** as of 22 November 2024.

	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
	Actual	Pre-application	Application	Application	Application	Post-application	Post-application
EAF (%)	54.6	61	63	64	65	66	67
PCLF (%)	12.0	10.5	10.5	10.5	10.5	10.5	10.5
UCLF (%)	32.3	27	25	24	23	22	21
OCLF (%)	1.1	1.5	1.5	1.5	1.5	1.5	1.5

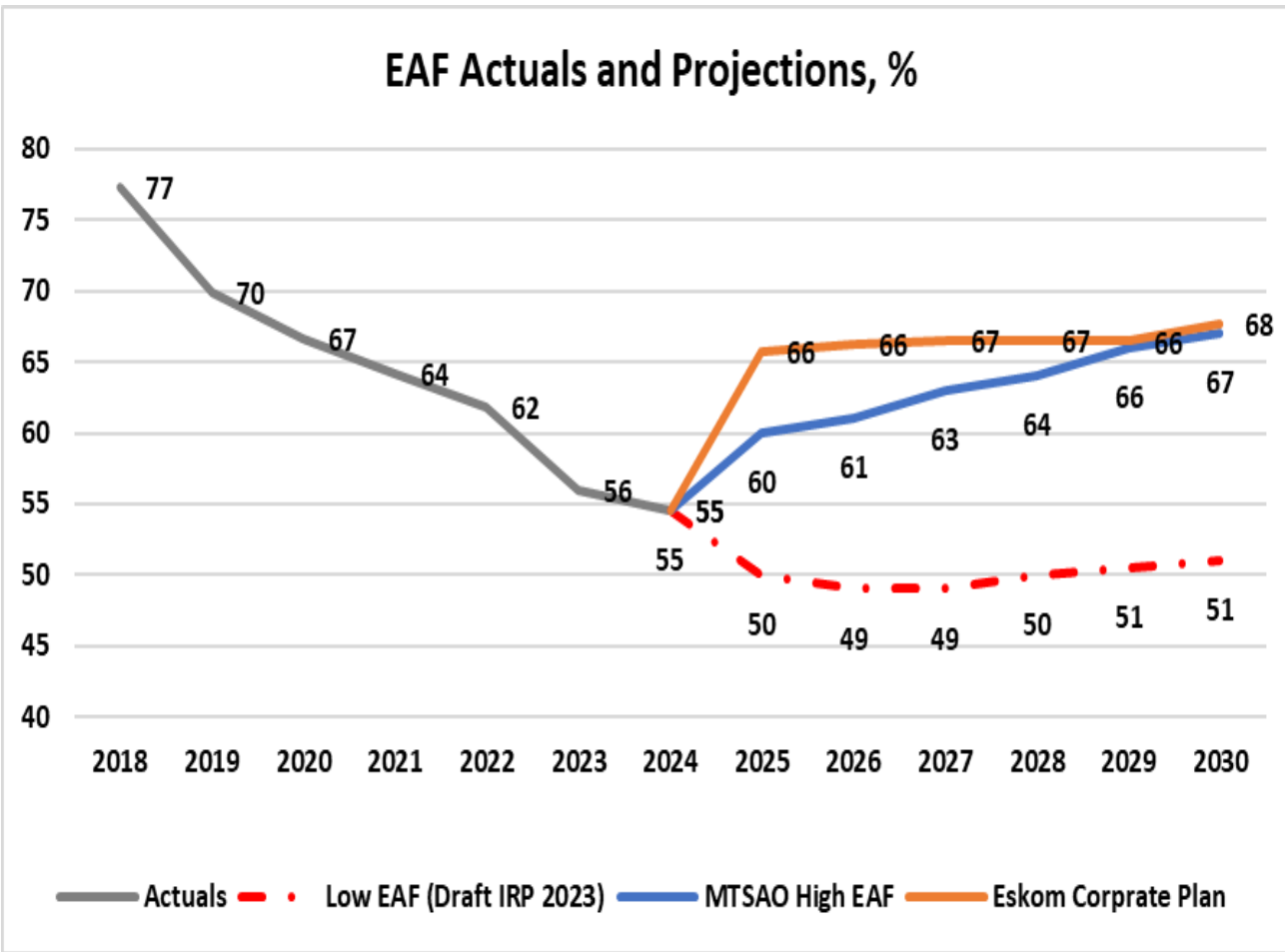
Annual average EAF performance is ahead of plan

Historical and forecasted EAF performance for Eskom's existing fleet



Insights

EAF Actuals and Projections, %



Sustained Energy Availability Factor (EAF) improvement:

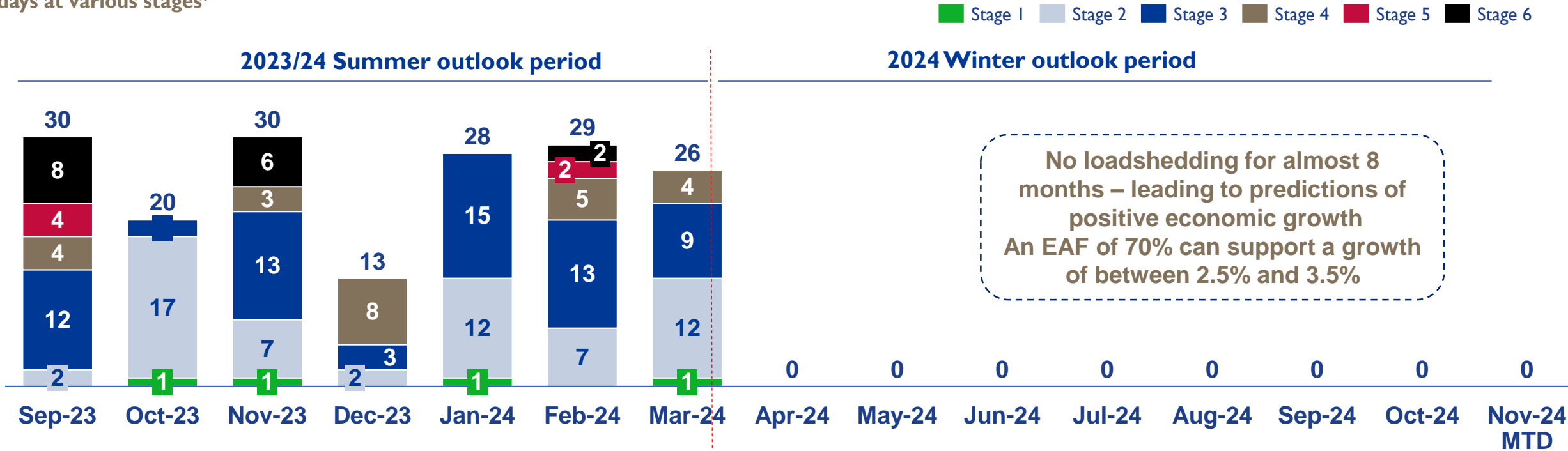
- Eskom's EAF was maintained at an average of 64.5% over the past week and 63.1% year-to-date.
- Top-performing stations — including Medupi, Kusile, Matla and peaking facilities — achieving an average of at least 70% EAF. Five other power stations recorded EAFs above 60%. Reduction in unplanned outages:
- Over the past week, the average total unplanned outages have dropped to 10 478MW, a notable improvement from 16 367MW recorded during the same period last year — representing a reduction of 5 890MW..
- Ongoing planned maintenance is at 8 402MW, aligning with our summer maintenance strategy to further increase the reliability of the stations in preparation for winter 2025 and beyond.
- With an available generation capacity of 30 040MW and a peak demand forecast of 26 192MW for Friday night, Eskom remains on track to meet electricity demand. By Monday evening, an additional 3 508MW is expected to return online.

Structural improvement in plant performance has resulted in 238+ days of continued no loadshedding



Overview of loadshedding intensity and frequency between Sep 2023 and Nov 2024

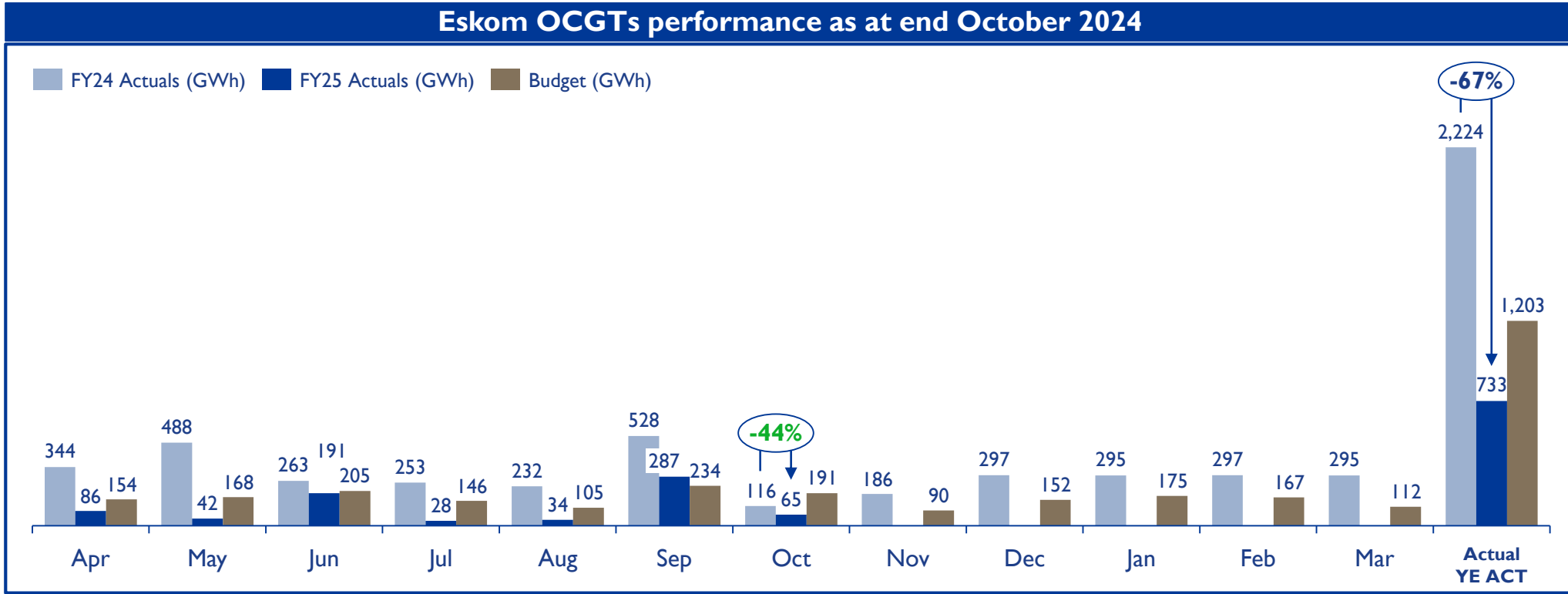
of days at various stages¹



- An **average 17% month-on-month reduction in unplanned losses** during the Summer 2023/24 period, as well as the return of units - as part of Eskom's recovery plan - resulted in **no loadshedding being implemented since March**
- This performance has been **sustained throughout the winter period**, with unplanned losses falling to a **12-month low of 8.2 GW in Oct 2024**
- Between March and November 2024, **Tutuka, Kendal and Kriel** showed the **greatest improvement in reducing load losses**
- **Growth in Renewables** – estimated 9.6 GW to 11 GW over the last year

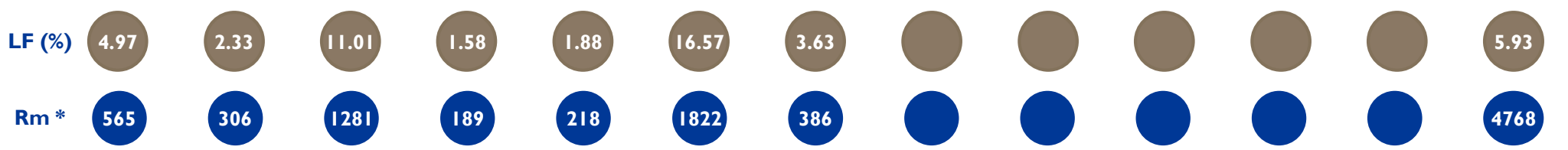
Source: 2023/2024 Load Shedding and Curtailment events Notes: 1: Indicates maximum stage per day

Month-on-month Eskom plant OCGT usage – R15.16 billion y-on-y savings



Key Insights

- Year-on-year diesel savings of R15.16 billion
- 69.9% less than the R21.69 billion spent during the same period last year.
- The October OCGT load factor at 3.63% (65 GWh), decreased by ~44% compared to the same period last year.



* Eskom only OCGT excl. Environmental Levy
Source: Eskom Generation, as at end October 24

LF – Load Factor

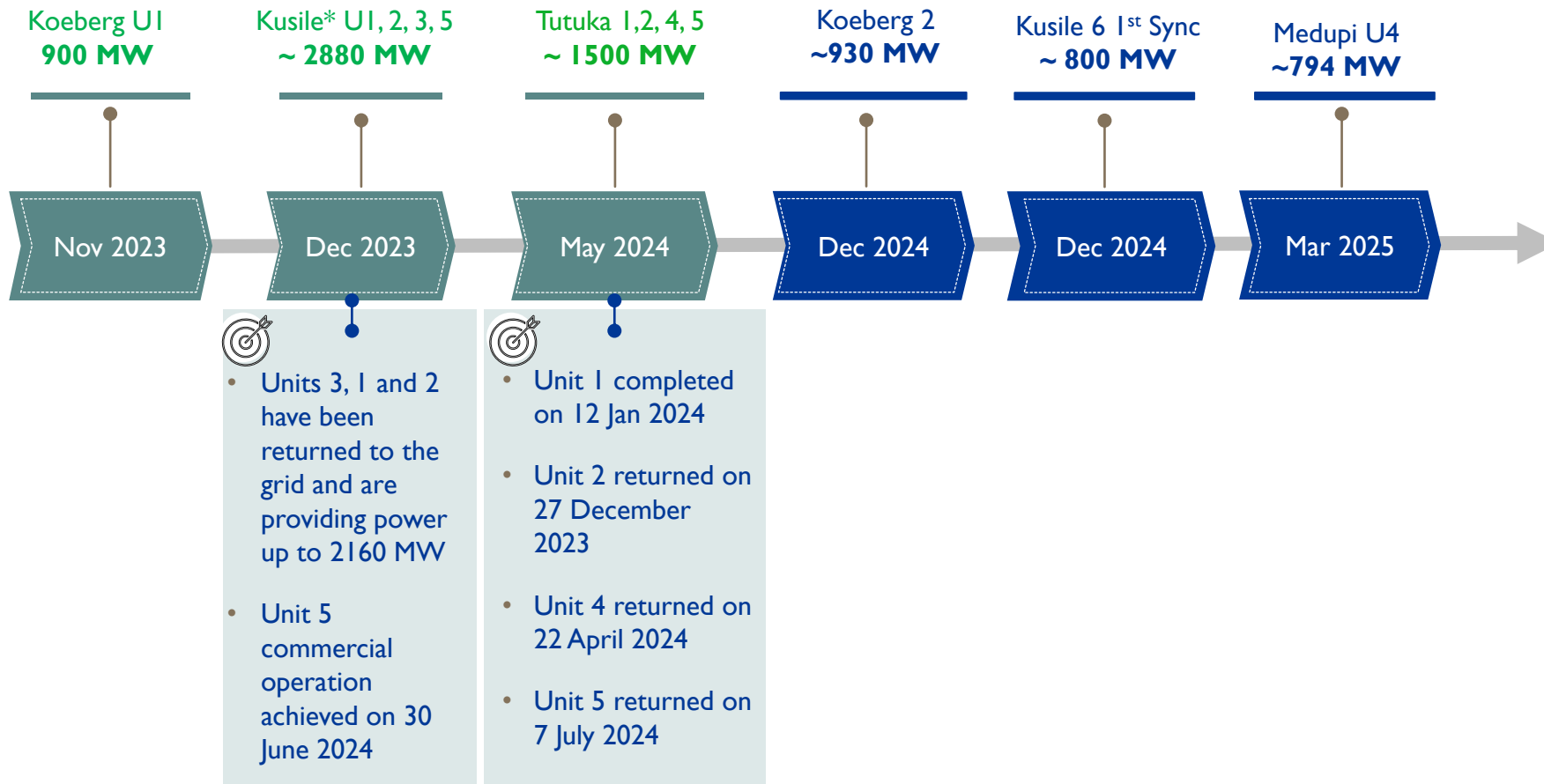
xx Denotes MTD figures

Additional ~2500 MW capacity expected by the end of the financial year will contribute to security of supply (greater than 2 stages of loadshedding)



Units on long term outage - return to service dates

xxx Complete



Key insights

Kusile - Kusile U5 synched to the grid on 31 December 2023. Commercial Operation achieved on 30 June 2024 – **Completed**

Tutuka RTS dates

- Unit 4 planned outage for LP turbine rotor and HPH replacement - **Completed**
- Unit 5 on Major outage - **Completed**

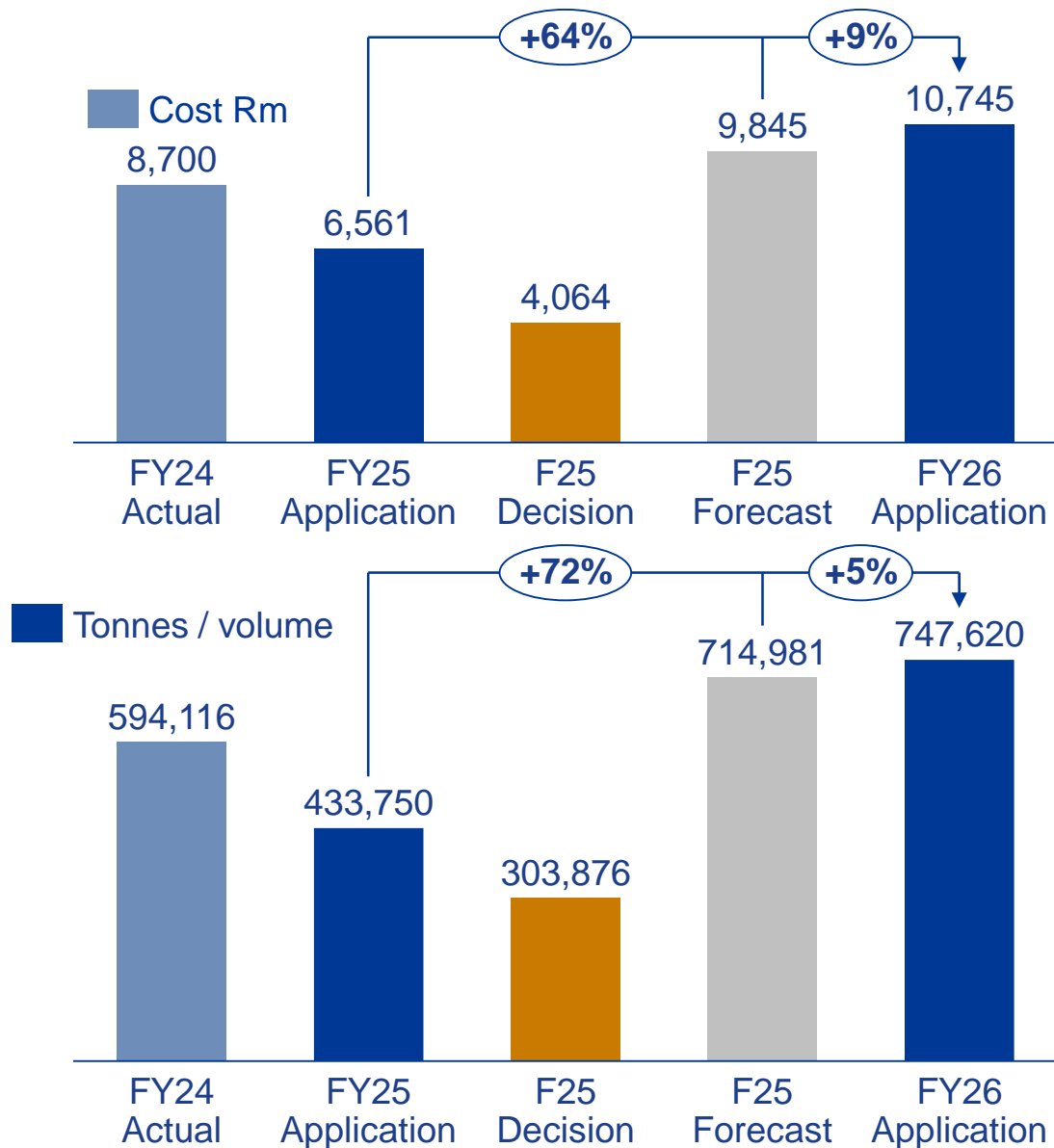
Despite some delays, three units are still expected to return to service by the end of the financial year:

Kusile U6 sync experiencing some delays due to material availability and delays in acid clean. Current forecast for 1st sync date is Dec 2024

Medupi U4 - due to unexpected design issues related to second hand, RTS should be achieved by March 2025

Koeberg U2 weld defects on the main steam pipes requiring additional inspection and weld repairs. Revised date to cater for discoverables during commissioning

Fuel oil volume increases required to meet security of supply and continue EAF improvements



Fuel oil is essential for unit startup/shutdown, combustion support, safety and maintenance

Volume increases from FY25 application to FY25 forecast due to:

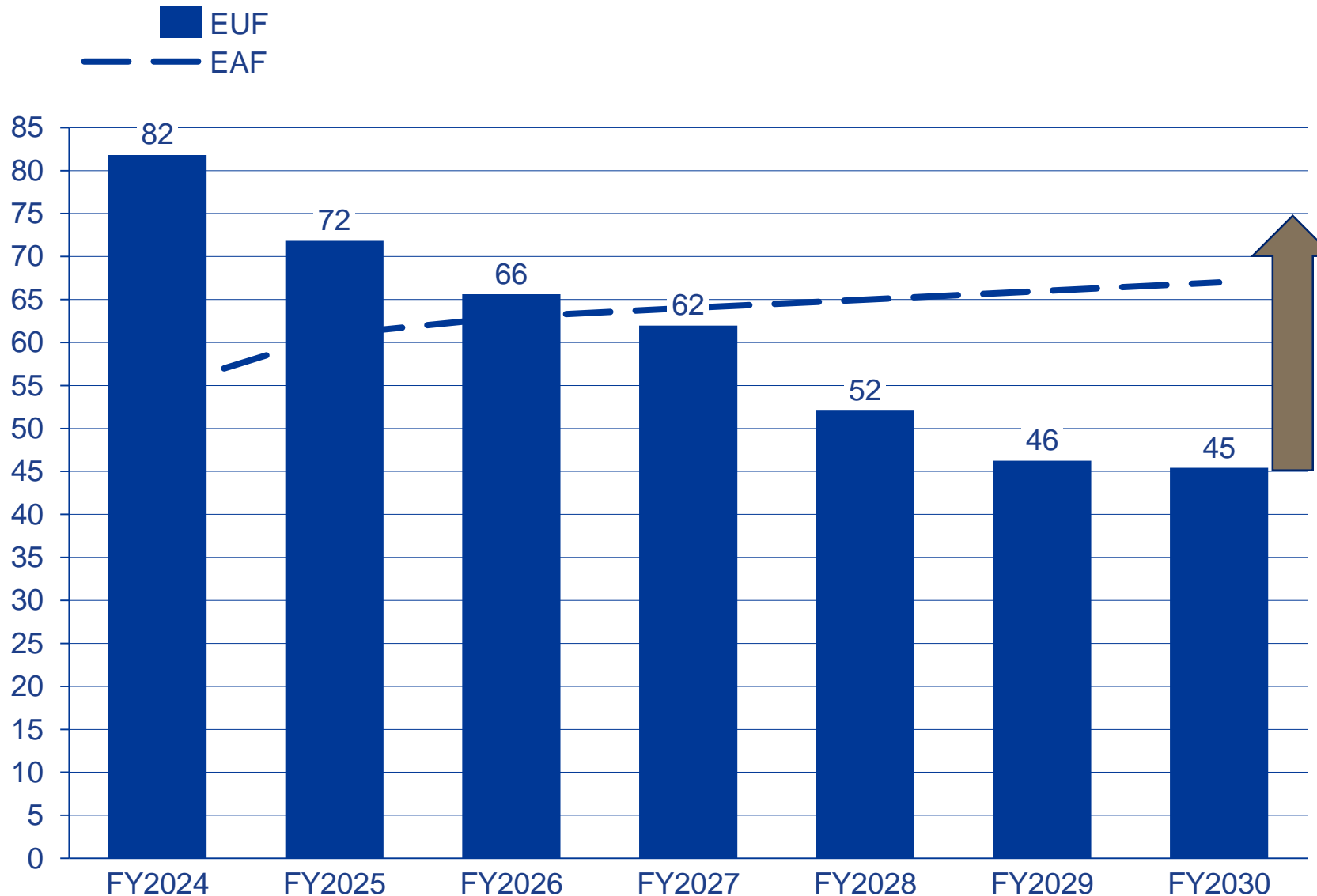
- Strategy change – **more units running for security of supply**
 - **17 more units** at Camden, Grootvlei and Hendrina
- **More planned maintenance** for continued **EAF improvement**

Increase from FY25 forecast to FY26 application is 9% on cost and 5% on volume

Electricity output GWh	Projection FY2025	Application FY2026	Application FY2027	Application FY2028
Power sent out by Eskom stations, GWh (net)	186 036	177 260	170 156	145 802
Coal-fired stations (incl. Pre-Commissioning), GWh (net)	170 108	159 704	149 556	126 241
Hydroelectric stations, GWh (net)	832	779	616	830
Pumped storage stations, GWh (net)	4 522	4 242	4 055	4 188
Gas turbine stations, GWh (net)	1 266	1 266	1 266	1 266
Wind energy, GWh (net)	307	304	304	304
Nuclear power station, GWh (net)	9 001	10 965	14 359	12 973
IPP purchases, GWh	23 856	31 364	35 214	57 259
Wheeling, GWh	2 826	2 723	2 723	2 831
Energy imports from SADC countries, GWh	9 776	6 601	6 449	8 573
Total Gross Production , GWh	222 493	217 948	214 543	214 464
Less Pumping	5 901	5 539	5 294	5 464
Total Net Production , GWh	216 592	212 409	209 249	209 000

- OCGT load factor of 6% – equivalent to approx. **1½ hours per day** – OCGT used as designed for **mostly peak time**
- The EAF improves over the application years – from 63% to 65%
- Significant projected increase in IPP energy in FY2028 – off-sets coal fired energy

During MYPD6 energy utilisation drops significantly with increased IPPs. Allows additional energy space for growth or for delayed IPPs



Key insights

Residual demand (demand seen by Eskom) drops, predominantly due to demand taken up by new IPP capacity.

Thus, Eskom stations **don't need to run "as hard"** – lower utilisation (EUF)

For MYPD6 assumptions, EUF drops to **52% in FY28 and 45% in FY30.**

This means that there is significant energy space to **meet national demand higher than assumed** or if IPP build does not materialise.

E.g. in FY28, by ramping EUF from 45% to 75% (less than the current today of 76.7%) would be able to meet and additional ~7 300MW* residual demand

* Capacity x 25% (delta EUF) x 67%(EAF)



Thank you

3. NERSA is ordered to apply the 2026 methodology for the re-determination of the Regulatory Asset Base value for subsequent years after FY2023/24.
4. The RAB value, as determined by NERSA for FY2022/23 using the steps undertaken, must be reviewed and decided on as reflected below in paragraph 6.
5. This re-determined RAB valuation for FY2022/23 will form the basis of the RAB valuation for FY2023/24 and FY2024/25.
6. The steps undertaken by NERSA in the determination of the FY2022/23 to be reviewed and decided are:
 - 6.1 NERSA is ordered to ensure that only commissioned assets are included in the replacement cost new (RCN) determination and that the assets with construction periods longer than 12 months and which are still included under the 'Works Under Construction' category to be valued at their book value excluding capitalised Interest During Construction, until their transfer to the category of 'commissioned assets'.
 - 6.2 NERSA is order to reverse the Flue Gas Desulphurisation (FGD) adjustment incorrectly made to applicable coal fired power stations.
 - 6.3 NERSA is ordered to re-determine the accumulated depreciation adjustment made, including that correct remaining useful lives are used to determine the accumulated depreciated as at 31 March 2020, to ensure that power stations will not have negative RAB values but have values at 31 March 2020 commensurate with the RCN times the ratio of remaining useful life to total useful life.
 - 6.4 NERSA is ordered to ensure that correct remaining useful lives for each year are used for when the roll-forward depreciation is undertaken from 31 March 2020 to determine the RAB value as at 31 March 2022. This will further ensure that power stations will not have negative RAB values but have values at each year end commensurate with the RCN times the ratio of remaining useful life to total useful life.
 - 6.5 NERSA is ordered to comply with the MYPD Methodology with regards to the Energy Availability Factor (EAF) adjustment made for all Eskom generators.
 - 6.6 NERSA is required to include completed Generation, Transmission and Distribution asset values that were not included in the RAB value determination made for the FY2022/23.
 - 6.7 NERSA is ordered to include the book value excluding capitalised Interest During Construction of all assets with the construction periods of longer than 12 months and which are still included under the 'Works Under Construction' category for Generation, Transmission and Distribution assets at 31 March 2023, in the determination of the RAB value for the FY2022/23 (that were not included in the determination).
7. Once NERSA has re-determined the RAB value as at 31 March 2023, similar approaches (based on Eskom's revenue application for FY2023/24 and FY2024/25) will be used to determine the RAB valuation for these financial years.