MYPD 6 Application

NERSA Public Hearings

Polokwane

29 November 2024

Basis of Eskom revenue application

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

Eskom's application is only for efficient costs

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 prudency 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 prudency 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

We are making progress in stopping the leakage by addressing fraud and corruption

- Eskom has **intensified its focus on environmental, social and governance matters** to rebuild Eskom as a high-performance, ethical and values-driven organisation
- Recommendations from interventions include:
  - **Instituting criminal charges**
  - Ensuring appropriate consequence management against employees and suppliers - all implicated suppliers have been blocked provisionally
  - **Pursuing director delinquency proceedings** – all implicated directors have been removed from the employ of Eskom. Legal proceedings to follow
  - Civil recovery of financial losses suffered by Eskom
- Eskom is also **re-evaluating the effectiveness and making relevant changes to policies, processes, systems, controls and structures** where necessary
- Consequence management: establishment of an external disciplinary tribunal, to expedite disciplinary action and address the backlog of cases.

We are making progress in stopping the leakage by addressing fraud and corruption

Key Initiatives

Dedicated State Capture Task Team

Recommendations include:

- **Instituting criminal charges**
- **Consequence management against employees and suppliers**
- **Pursuing director delinquency proceedings**
- **Civil recovery of financial losses** suffered by Eskom

Security Risks and Threats to Infrastructure and People

Partnership with various **stakeholders** to address key **security risks and threats** to **infrastructure** and **people**

304 arrests

17 convictions

Security Vetting Programme

The Security Vetting programme focusing on non-executives, executives and employees in critical areas is in progress, with **clearance certificates issued by State Security Agency**

526 of 729 in progress / complete

Optimisation of Processes and Technology

- Re-evaluation of effectiveness and amending **policies, processes, systems, controls and structures** where necessary
- Eskom Security embarked on **technology optimisation, security contract management** and **driving integrated security strategies**.

Consequence Management: Supplier Review Status

- Eskom has **established an interim supplier discipline process** to review contracts of suppliers implicated in malfeasance while a permanent supplier disciplinary process is being developed.

145 cases **referred** to the **supplier disciplinary process** for assessment and processing

41 suppliers **sanctioned** with **removal** from Eskom's Supplier Database (ESD) and recommended for **referral to NT for blacklisting**

106 cases **finalised**

36 suppliers given a **suspended sanction**

28 suppliers **files were closed** with no further action to be taken (no malfeasance found, or deregistered and no longer in existence)

2 suppliers **sanctioned** with **removal** from Eskom's Supplier Database (ESD) **without referral to NT**

39 suppliers cases still **under review**

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	Operating expenditure (incl R &D)	Primary Energy (incl imports and DMP)	IPPs	Depreciation	Integrated Demand Management	Tax & Levies	Revenue

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

NERSA methodologies allows Eskom to recover only efficient costs through tariffs to be charged to customers

Regulatory framework for tariff determination

Revenue Level

1 MYPD (decision Dec-24) + RCA

Determination of the required level of annual revenue, typically known as the revenue requirement

- Cost + return Gx, Tx, Dx and retail
- Volume
- Average price and price increase

Tariff Structure

2 Cost to serve/supply

Apportionment of revenue among customers with distinctions made between customer-, demand- and energy-related costs classes

- Cost to serve
- Cost functionalisation Gx, Tx, Dx and retail
- Cost causation and cost drivers
- Cost reflective unbundled unit costs

Tariff Level

3 ERTSA (decision Mar-25

Individual prices, formally known as tariffs or rates, are designed in order to collect the assigned level of revenue from each class

- Tariff design
- EPP, Codes, Strategic provides direction
- Design - unbundled or bundled, affordability
- Once approved by NERSA implementation

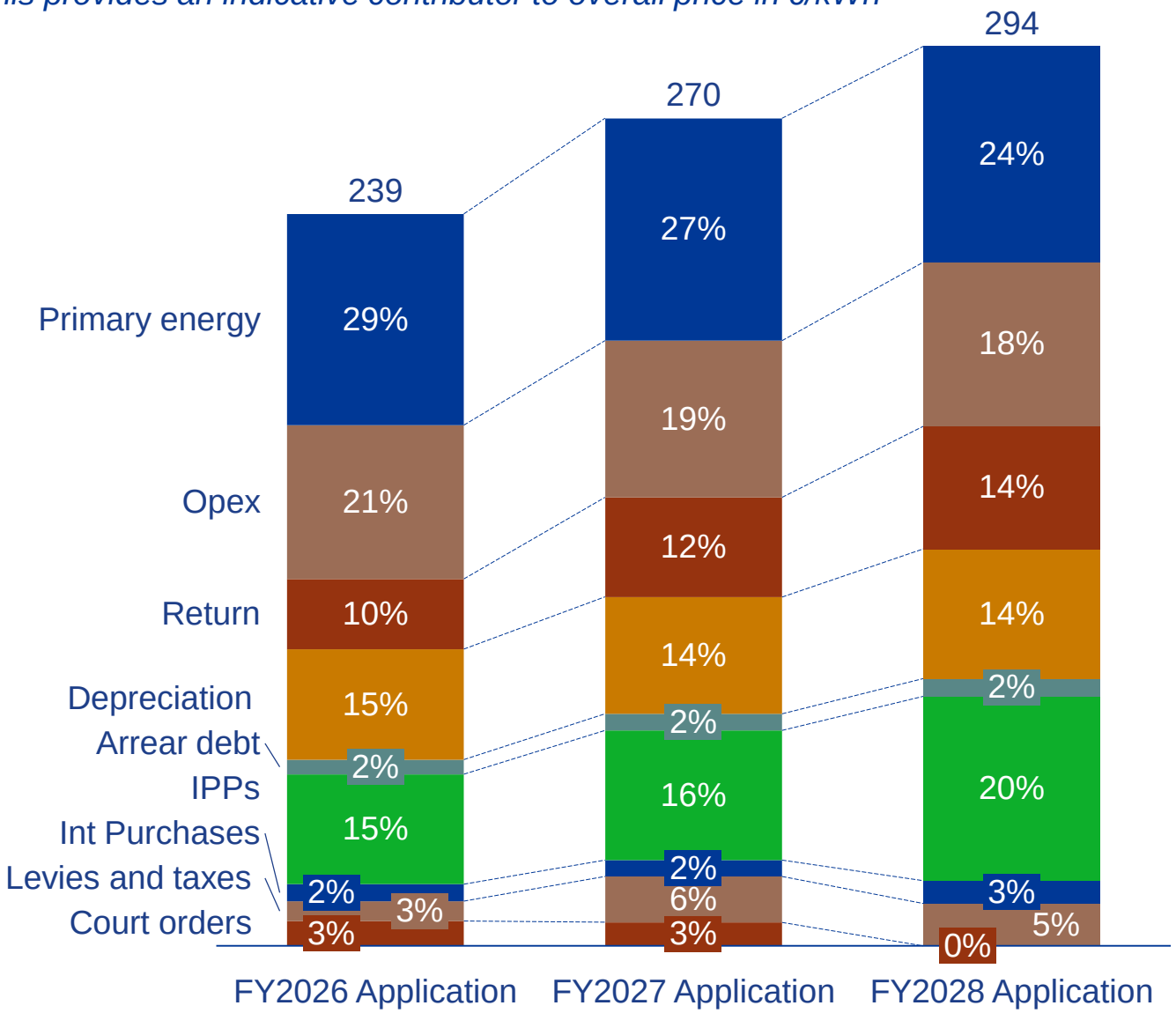
Retail Tariff Plan – restructure of tariffs to best reflect the costs for each function (**decision expected Jan-25**)

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**

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

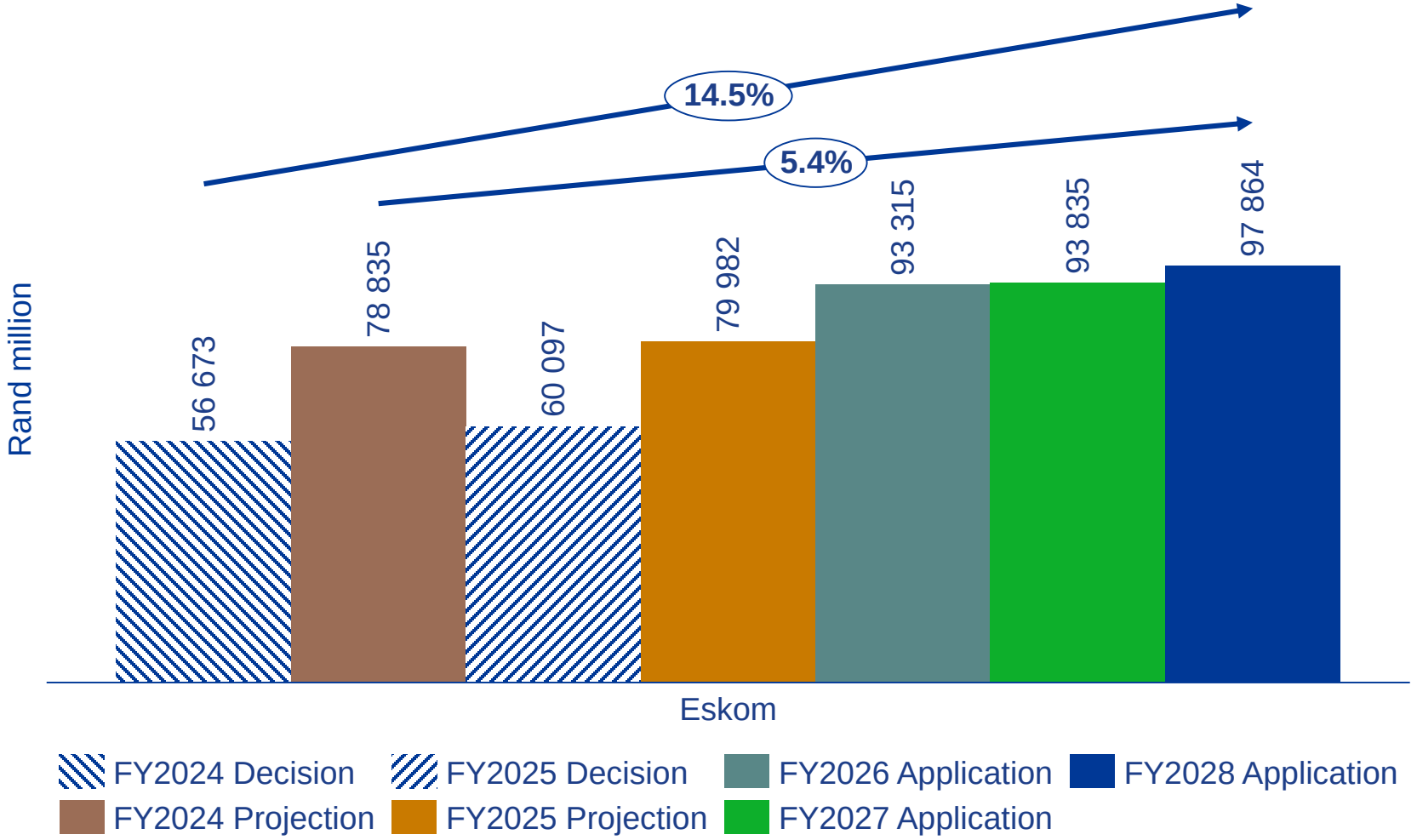
Eskom generators made available due to IPP unavailability

- The **IRP 2019 required over 8 000MW capacity** of various technologies in 2022 and 2023
- **A further 3 000MW capacity was required by 2024** – including 2 000MW from gas
- **By 2023 – only 350MW materialised**
- It is unlikely that any further capacity will be available by 2024
- This illustrates the severe shortfall from IPP capacity experienced in South Africa
- In addition, for the MYPD 6 period, the difference in energy to be secured from IPPs has dropped tremendously from what was originally envisaged by the Government Departments.
  - Corresponds to shortfalls of approximately 26 TWh (FY26), 42 TWh (FY27) and 33 TWh (FY28)
  - Approx 12% (FY26), 20% (FY27) ,15% (FY28) of total energy supply that Eskom needs to accommodate
- **Eskom is required to make capacity available to meet these shortfalls**
- Required and continues to require significant changes in Eskom Generation operations
- Additional costs associated with capital investments, operating and primary energy needed
- In the FY 2025 determination, NERSA did not adequately cater for Eskom Generation having to fill the gap of further non-availability of IPPs accounting for 5TWh. Although a 10% OCGT load factor was indicated by NERSA's production plan, revenue related to 6% load factor was allowed.
- Such inconsistencies exerts pressure on management decisions

Eskom Primary Energy

Primary energy costs (R'millions)	Projection FY2024	Projection FY2025	Application FY2026	Application FY2027	Application FY2028
Coal usage	71 979	83 238	93 653	96 537	89 640
Water usage	2 573	3 368	3 936	3 988	4 359
Fuel and water procurement service	295	334	351	368	384
Coal handling	2 419	3 090	3 314	3 469	3 633
Water treatment	848	1 004	1 014	986	1 029
Sorbent usage	366	361	455	477	449
Sorbent handling	17	23	23	24	20
Gas and oil (coal fired start-up)	8 932	9 845	10 745	11 086	11 485
Nuclear	649	840	982	1 519	1 648
Coal and gas (Gas-fired)	10	9	9	10	11
OCGT fuel cost	19 152	10 059	10 548	11 029	11 531
Ancillary services	370	1 929	2 970	3 568	4 679
Total primary energy	**107 611**	**114 100**	**128 000**	**133 061**	**128 869**

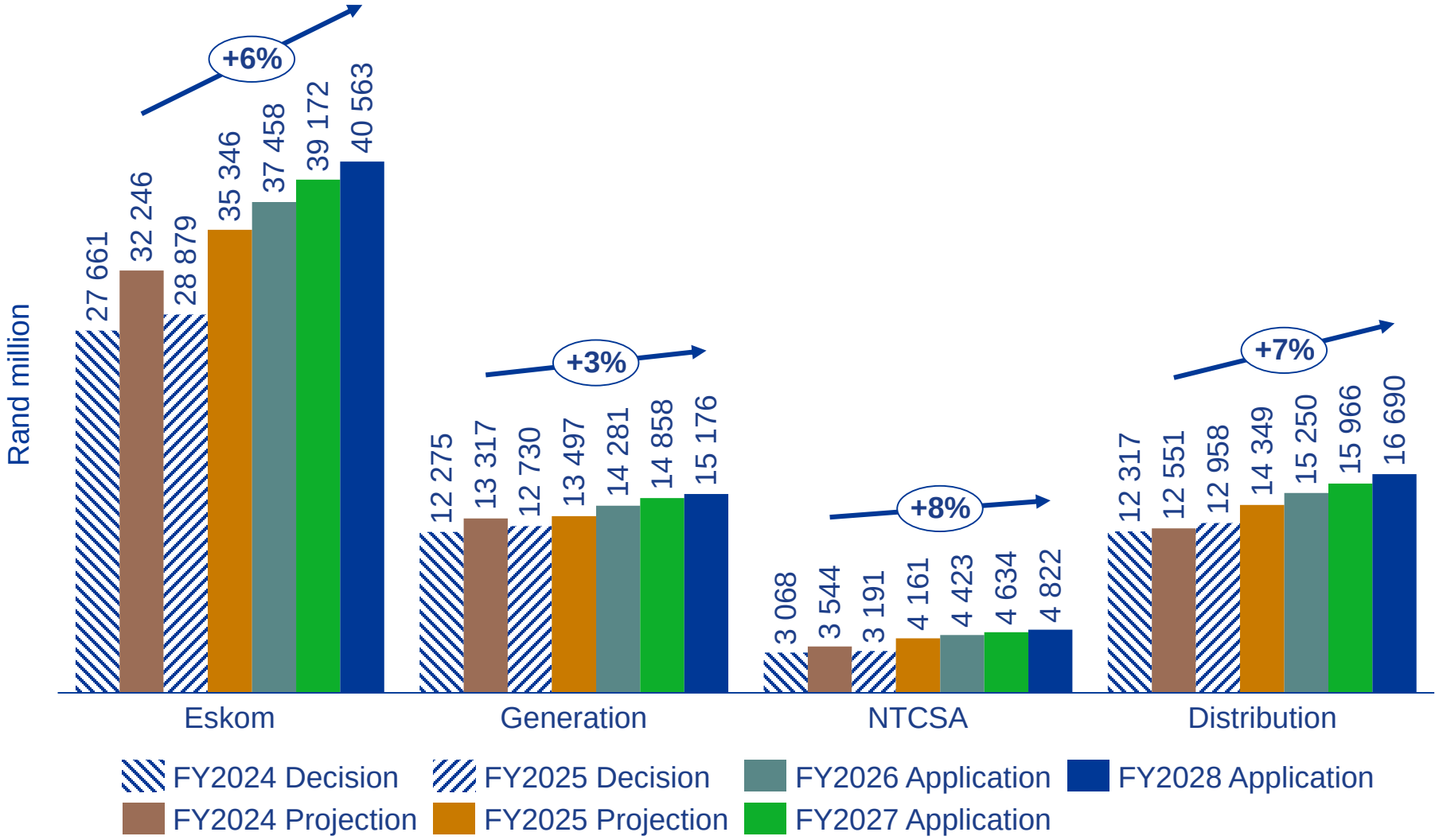
Growth in Eskom's operating costs



- Operating costs include Employee Benefits, maintenance, other opex and other income
- Eskom's CAGR is 5.4% from the FY2024 projection to FY
- Employee benefit costs have been well managed
- Includes 7% salary increases for FY24
- Maintenance is a critical component for Generation performance
- Contractual arrangements need to be considered

Percentages depict the CAGR (Compounded Annual Growth Rate) based on FY24 project to FY28 application

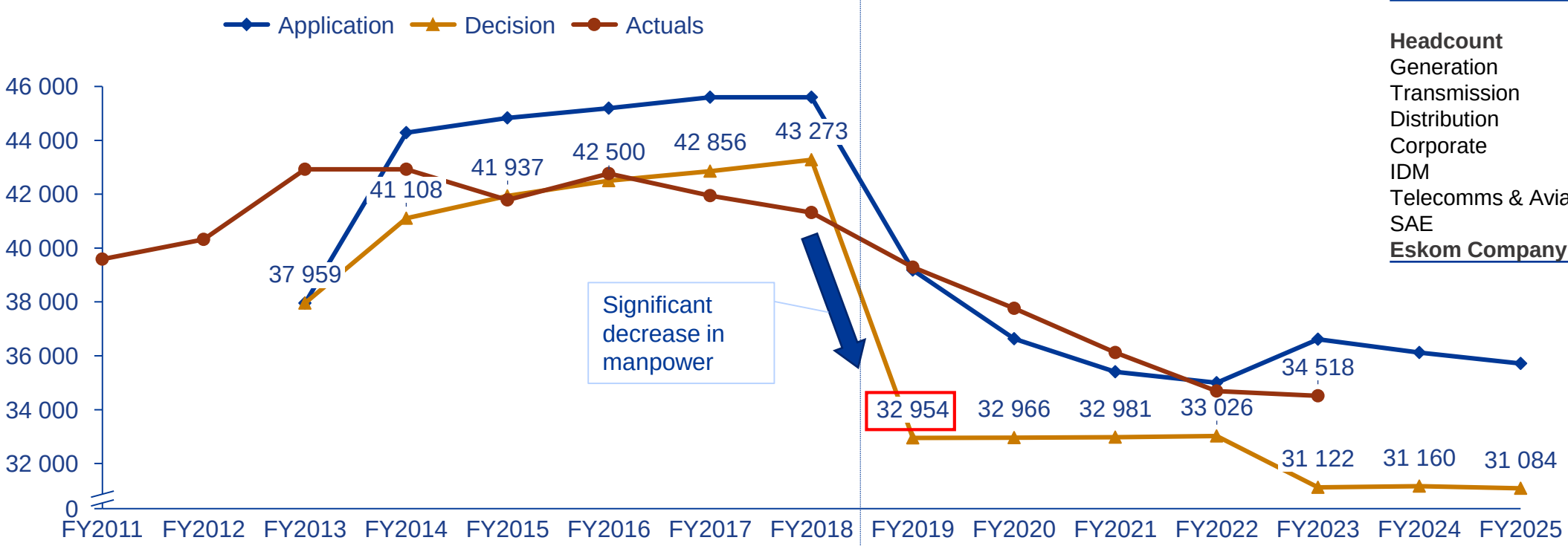
Employee Benefit costs are well managed



- This is one area that Eskom management has a role
- Contractual arrangements need to be considered
- Employee benefit costs have been well managed
- CAGR of 6% for Eskom is seen as reasonable
- Overall CAGR of 6% from FY 2024 to FY 2028 – but lower in application years
- Includes 7% salary increases for FY24

Percentages depict the CAGR (Compounded Annual Growth Rate) based on FY24 project to FY28 application
Decision numbers reflected for GTD in FY2024 and FY2025 is based on a allocation by Eskom
Eskom includes Corporate

Employee numbers have reduced since over last few years , there is a gap in FY 2023

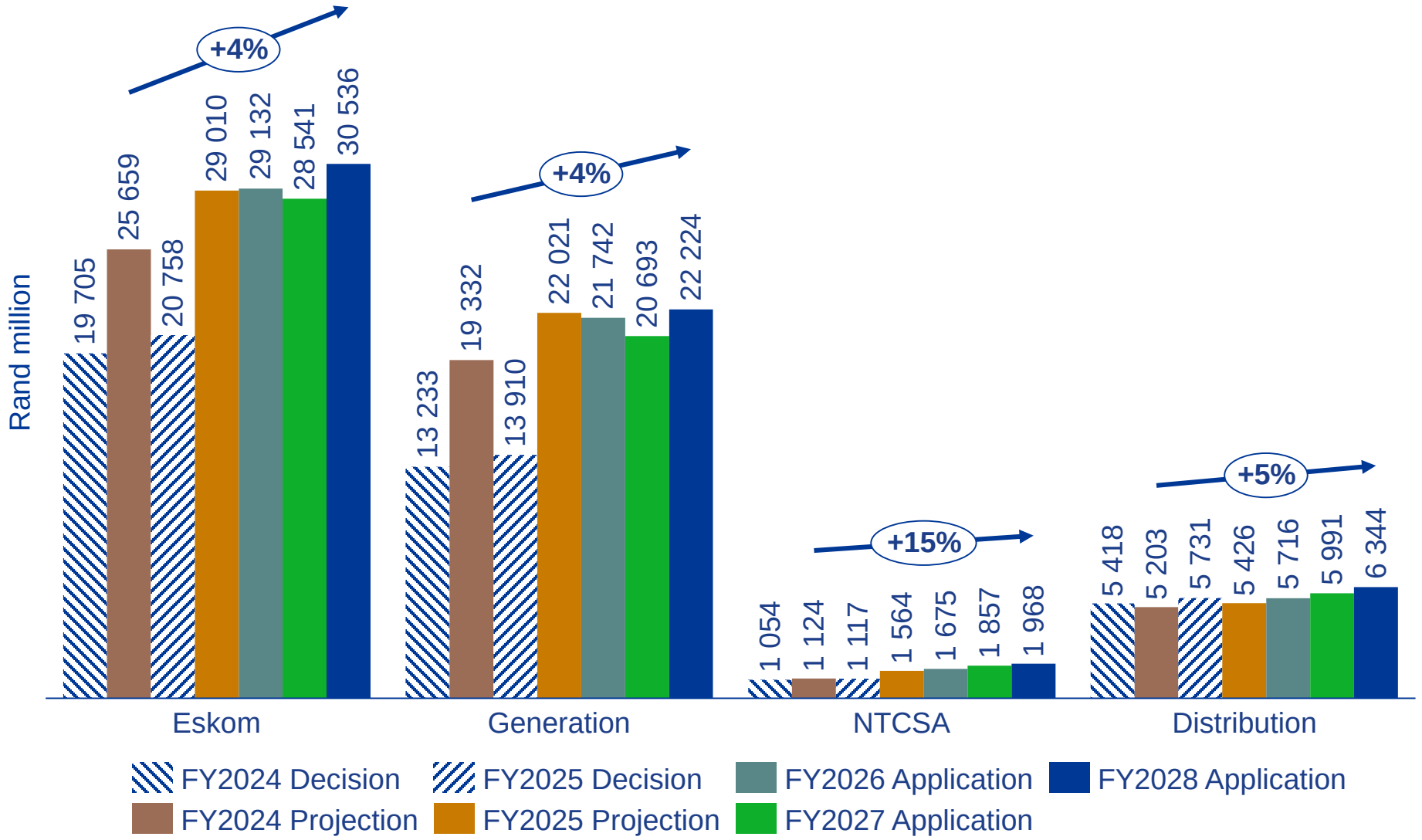


Headcount	Actuals FY2008
Generation	10 586
Transmission	1 841
Distribution	15 760
Corporate	4 700
IDM	48
Telecomms & Aviation	-
SAE	19
Eskom Company Headcount	**32 954**

- Over the MYPD 2 NERSA allowed for employee numbers to increase in line with new build programme
- Over the MYPD 3 this reasoning was maintained for GTD
- However, in this period Eskom restructured to centralised business functions which resulted in an increase in corporate manpower which NERSA did not allow in MYPD 3

- In the FY2019 decision, NERSA reverted to FY2008 as a basis for assessment on manpower, note this is pre-new build programme
- The significant drop in manpower was unrealistic for Eskom to meet especially considering that these are contracted positions approved in MYPD 3
- Eskom successfully reviewed this in the High Court
- However, subsequently NERSA have maintained a similar outlook on employee numbers and have kept it consistently low

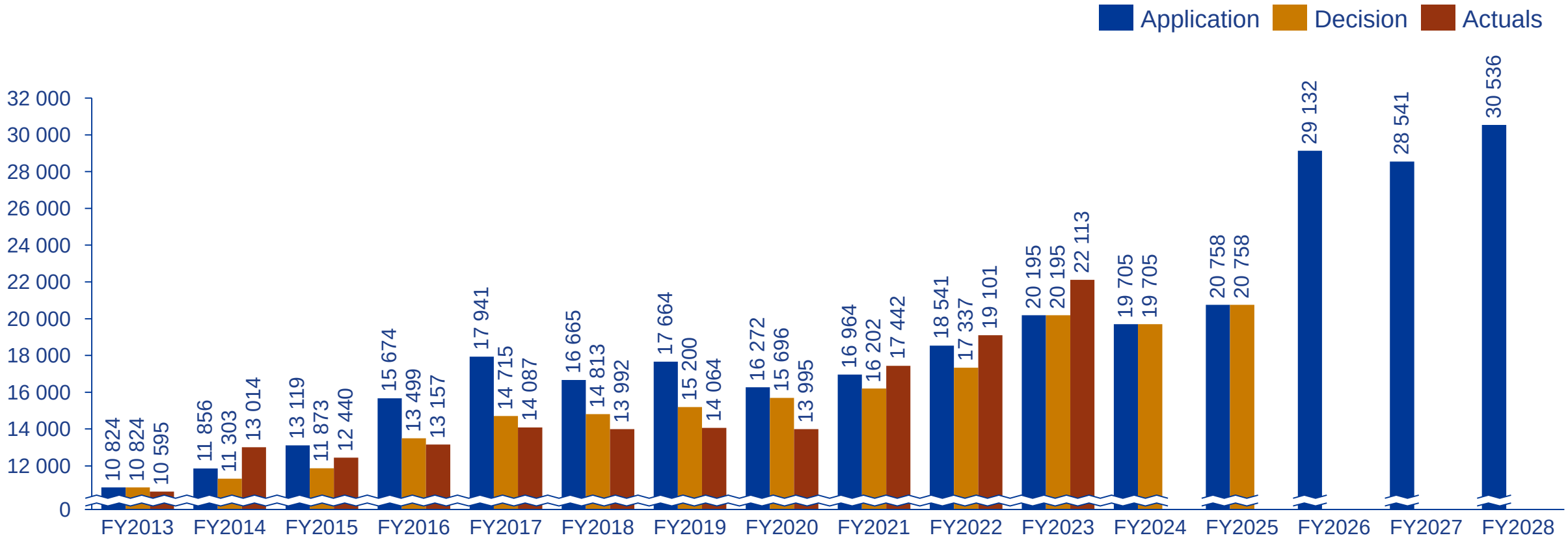
Maintenance is a critical component to the upkeep of all infrastructure



- Cost increases are relatively low, except for NTCSA
- Maintenance is a critical component for Generation performance
- Reality of generation maintenance costs very different from decision – for FY 2024 and 2025
- NTCSA's expanding network requires additional resources to monitor and maintain assets
- Distribution's maintenance regime includes both preventative and corrective maintenance to ensure the asset condition is managed over the asset life cycle

Percentages depict the CAGR (Compounded Annual Growth Rate) based on FY24 project to FY28 application
Decision numbers reflected for GTD in FY2024 and FY2025 is based on a allocation by Eskom

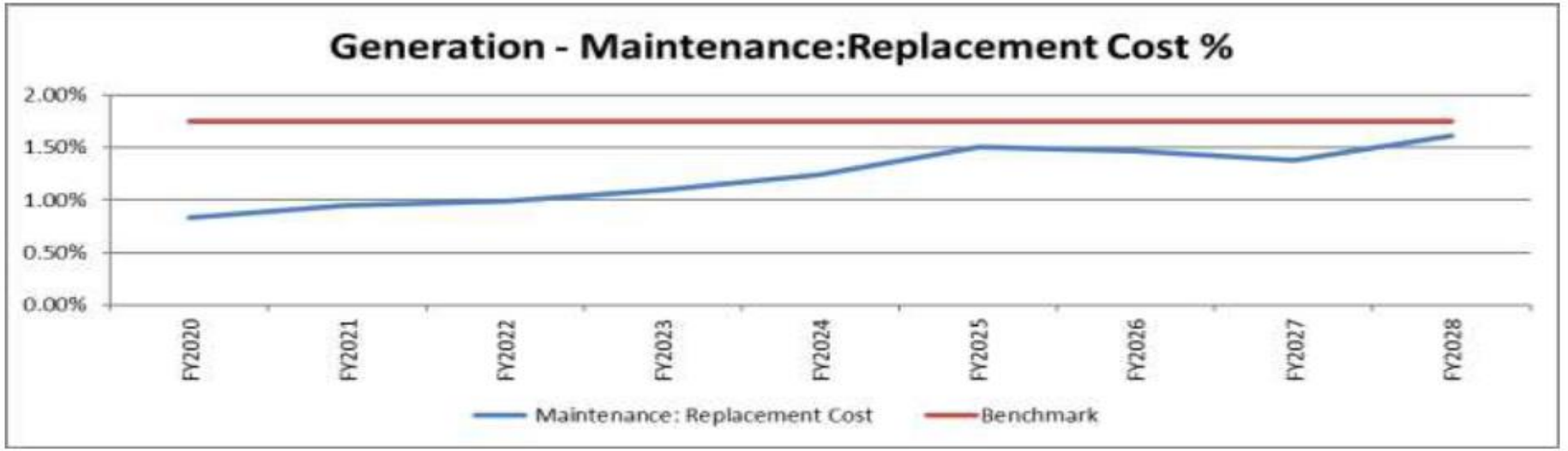
Maintenance is required to sustain operations
NERSA has allowed this in their MYPD5 decision



- Further maintenance required in accordance Generation operational recovery plan – 8 priority stations
- Requirement for continued operations –move from shift from “shut down” of older power stations
- More Kusile units operational
- Koeberg long-term outage

Generation Maintenance

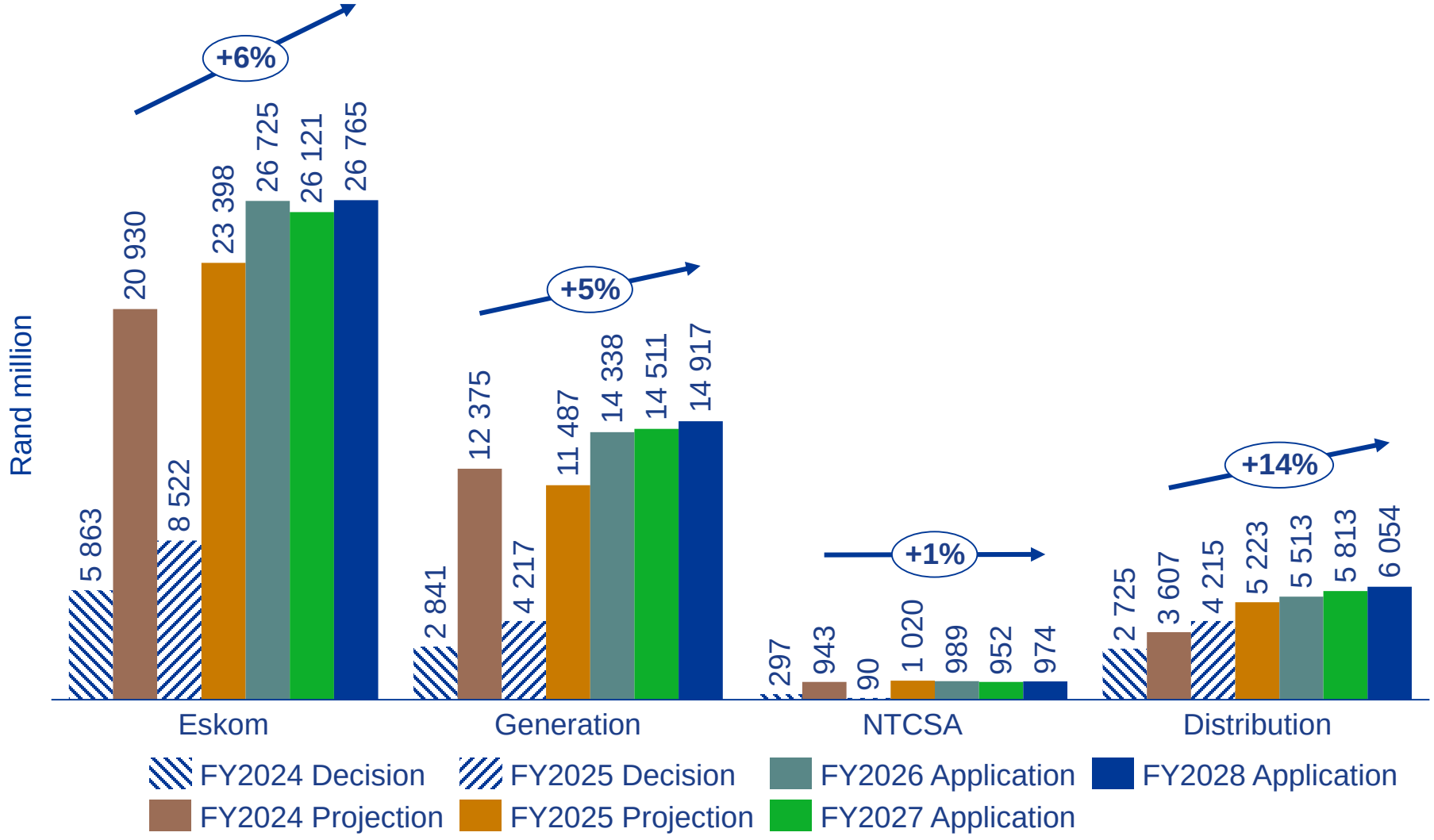
- The MYPD5 Application was done in 2022, a time of severe capacity constraints and space to perform the required maintenance, hence the maintenance costs forecasted for FY2025 at that point in time was lower than what it should be
- The latest MYPD6 forecasts are more aligned to the LOPP with a focus on operational recovery - The efficacy of this approach is evidenced by the recent improvement in EAF which is the main contributor to almost 250 days without load shedding
- Despite the increase in the MYPD6 period, maintenance spend is still lower than the benchmarking
- The benchmark range is from 1.75% to 3% of the replacement cost



This Benchmark is an accepted measure advocated by leading maintenance bodies including the Society of Maintenance Reliability Professions (SMRP) and Life Cycle Engineering.

It is also used by other maintenance intensive organisations.

Other operating costs continue stable journey



- Other operating costs are held relatively stable over the application period with a CAGR of 6% at Eskom level
- Included in this category are insurance, IT, fleet costs, legal and audit services, security, travel expenses, billing costs, connection/disconnection costs, meter reading, vending commission costs and telecoms
- This is another area that Eskom management has a role to play
- Contractual arrangements need to be considered

Percentages depict the CAGR (Compounded Annual Growth Rate) based on FY24 project to FY28 application
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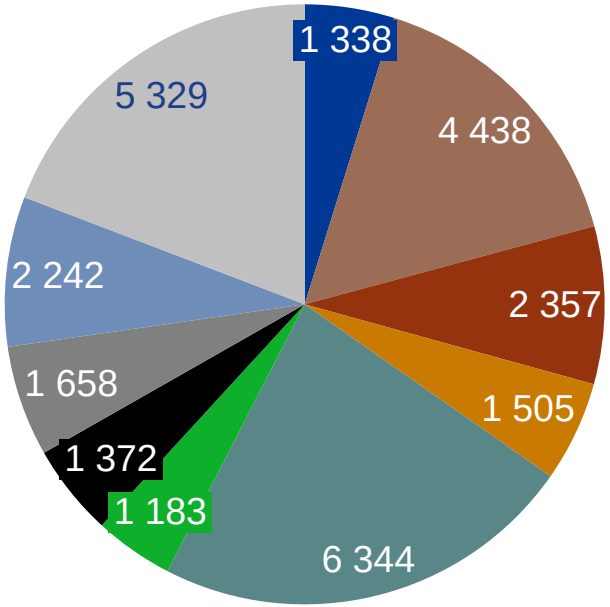
Eskom includes Corporate

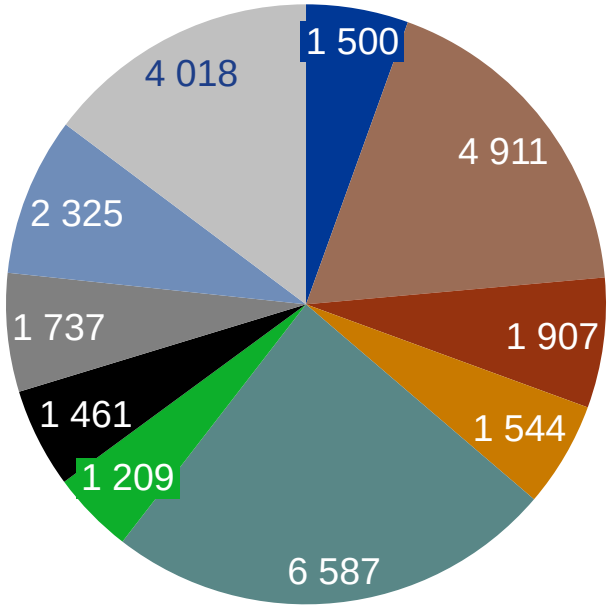
Other operating cost split into cost items (Rm)

Cost splits are only items that are greater than R1 billion

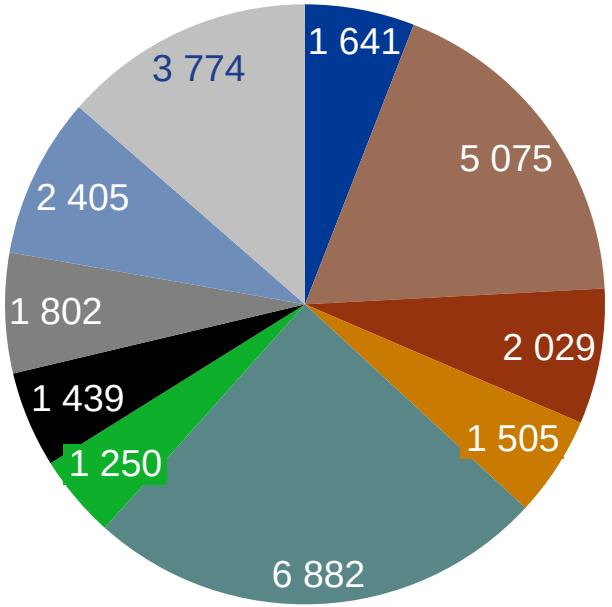
FY2026



FY2027



FY2028



- Electricity Costs
- Service costs - plant, equip, property
- Contractor Costs
- Materials Expenses
- Net insurance expense
- Cleaning materials and services
- Security services
- Software annual licensing fee
- Travel and subsistence
- Other

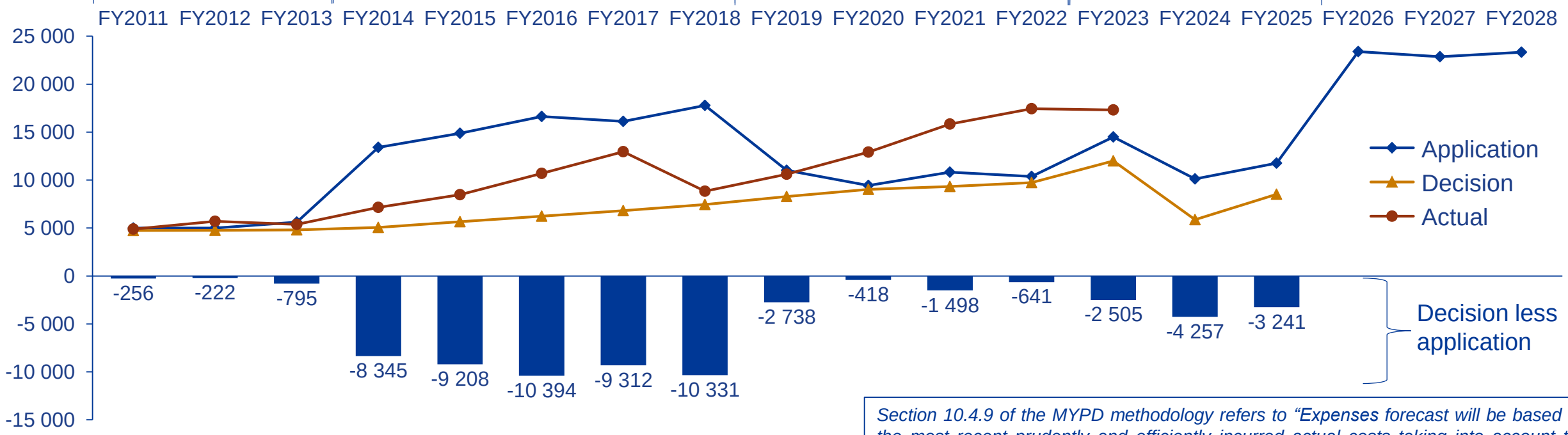
Variation in approaches to evaluate Other Opex

MYPD 2: NERSA allowed all cost for Gx and Tx. Dx was capped to NERSA inflation forecast

MYPD 3: Costs related to the expansion was not allowed and the other opex reverted to MYPD 2 levels before escalating by inflation resulting in a disallowed of R47.5bn over the period.

FY2019: FY17 was used a base to escalate by inflation for 2 years
MYPD 4: NERSA used a factor of 16% of total opex to arrive at an efficient level.

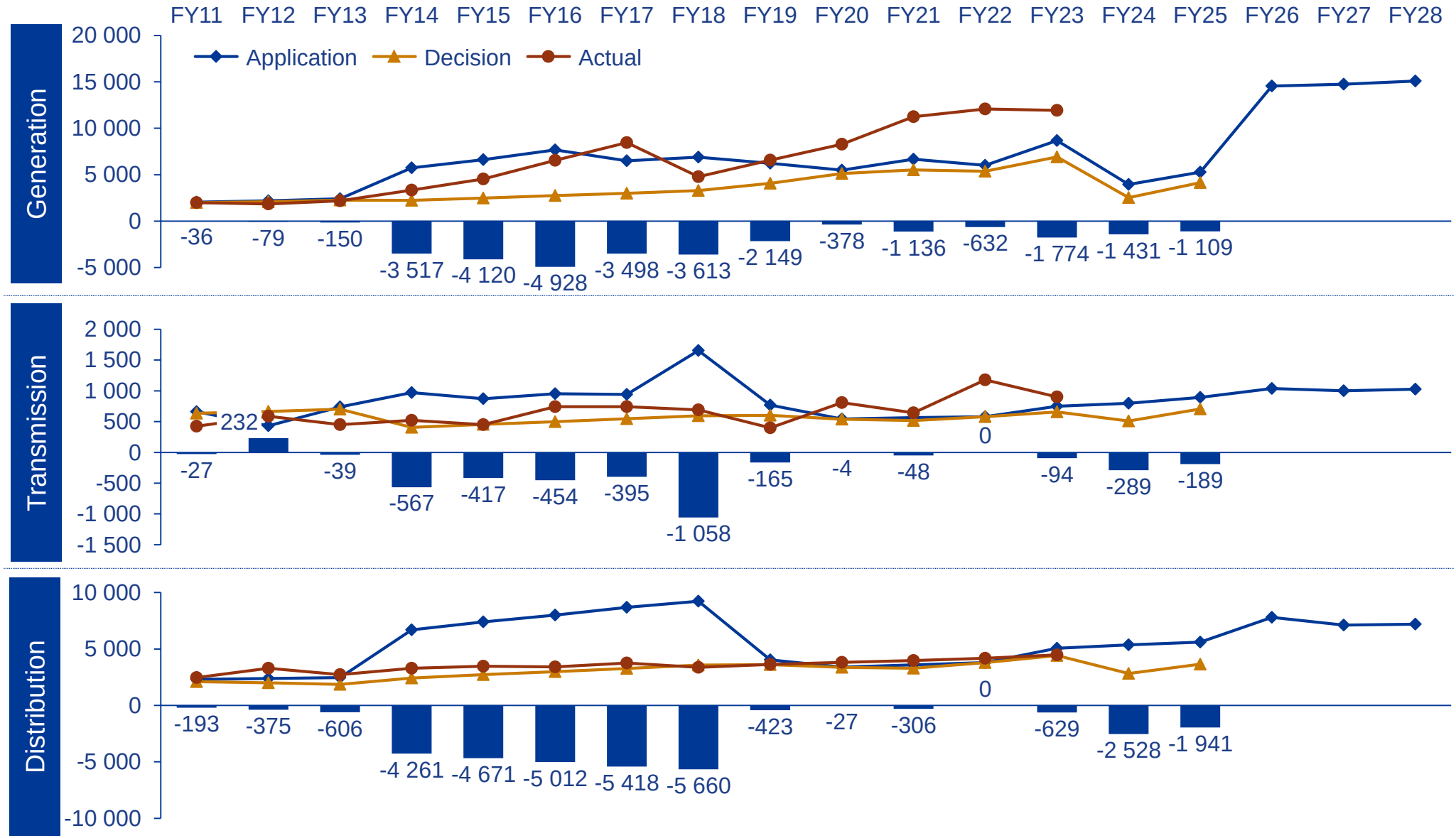
MYPD 5: NERSA starting point for other opex was lower by R1bn annually. Also reverted to FY14 levels as a measure of efficiency



Eskom had to borrow to sustain operations as the methodology did not allow Eskom to claim back the efficient and prudent expenditure to sustain the day-to-day operations

Section 10.4.9 of the MYPD methodology refers to "Expenses forecast will be based on the most recent prudently and efficiently incurred actual costs taking into account the fixed and variable nature of such costs" – thus, Eskom provides a motivation based on the latest actuals. However, NERSA bases its decision on a previous decision it made – and allows an increase for employee benefit costs on a previous decision. This ends up in a continuous incorrect spiral – since the basis is incorrect.

Other opex per division

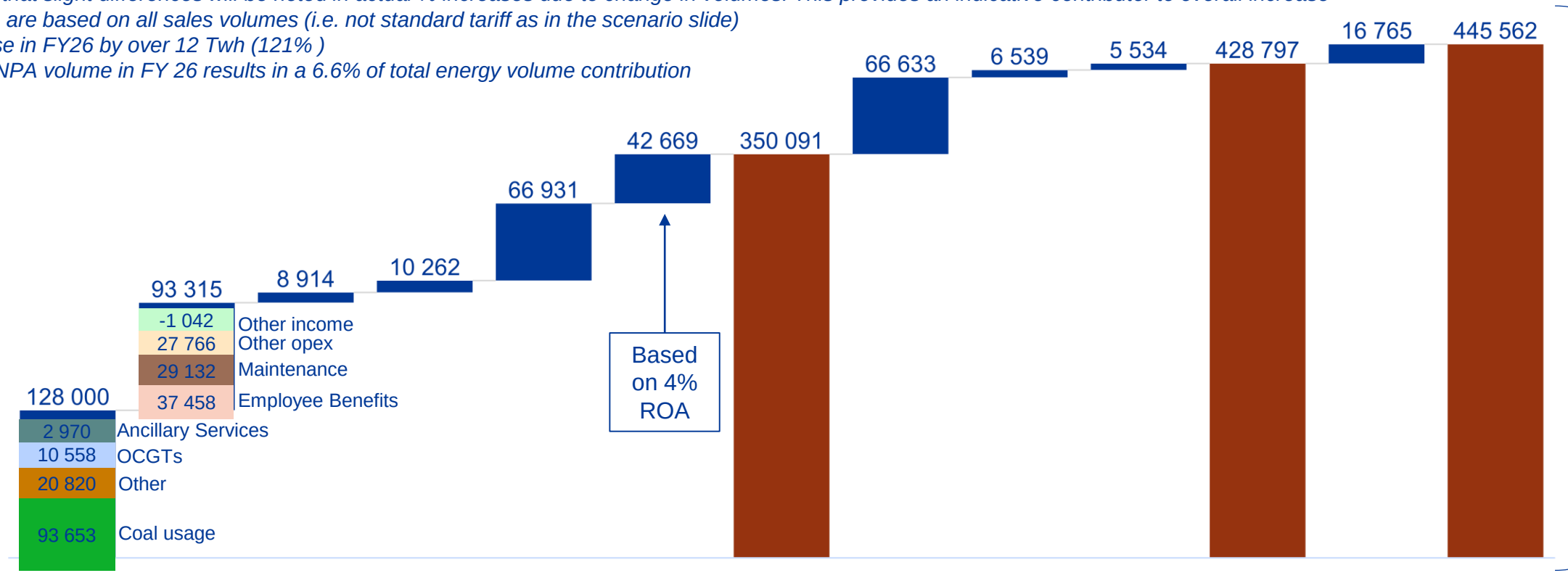


Drivers of other opex per division:

- Insurance premiums
- Security services
- Operating lease expense
- Managerial, technical and other fees
- IT costs
- Contractor costs
- Electricity costs
- Facilities cost water, rates, taxes
- Travel and subsistence
- Legal and audit fees
- Fleet costs
- Information system costs
- Software annual licensing costs
- Legal Costs
- Customer related billing
- Bank Related costs
- Information technology costs

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*



NPAs													
5.7%	11.2%	10.3%	2.6%	0.4%	-1.2%	7.9%	36.9%	-2.3%	0.1%	1.6%	36.3%	-0.2%	36.2%

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

Measures for low-income households to have access to affordable electricity

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)

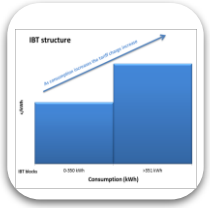
Social grants provided directly to customers through Free Basic Electricity of 50 kWh per household per month by national government to the indigent through the Equitable Share Fund

- 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 Inclining 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

Protecting the poor residential customer – Implementation requirements

Ensuring that Government policies are implemented

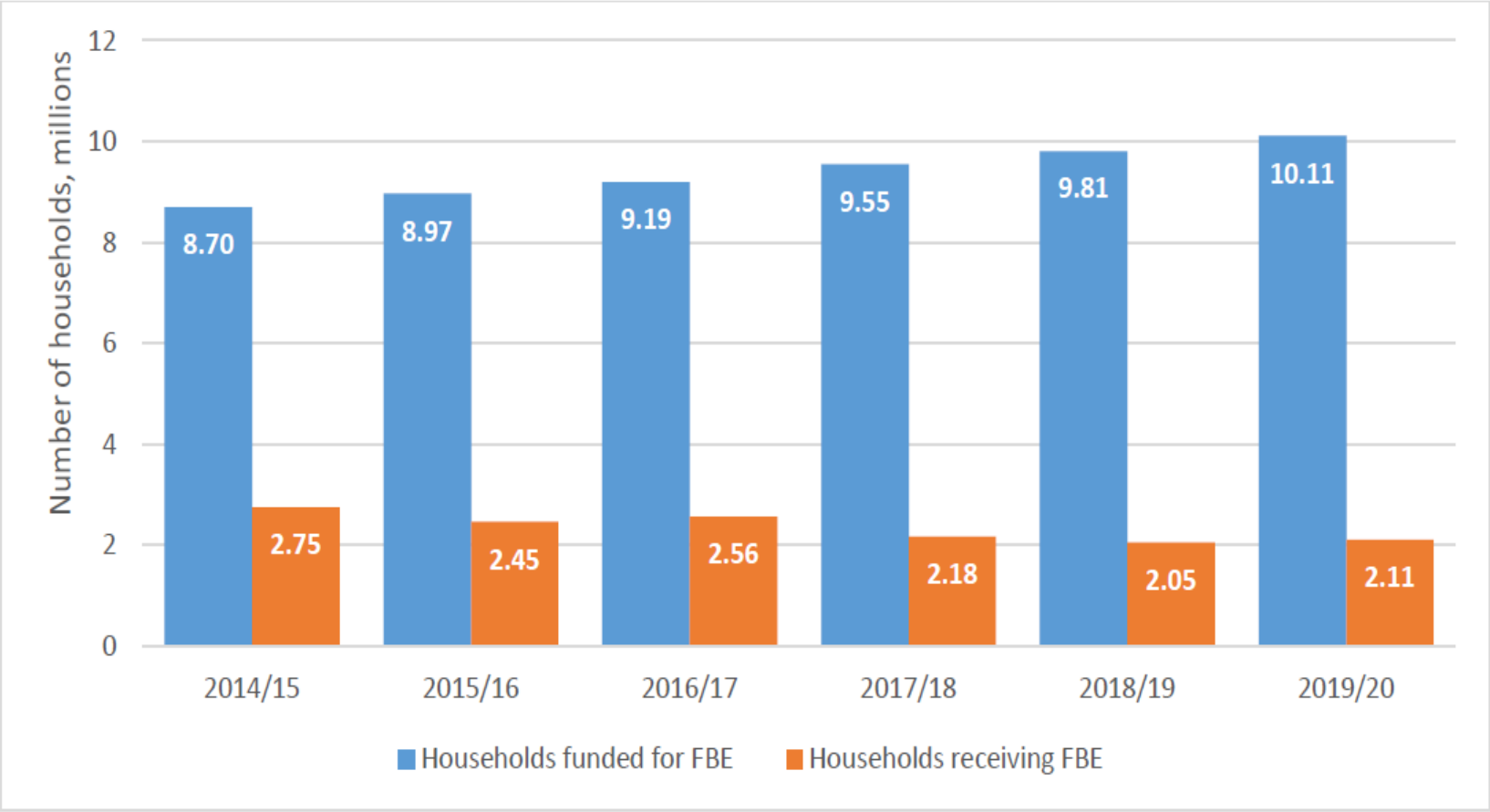
- The electrification programme is still underway
  - Government has a detailed programme in place to ensure that further areas are electrified
- It has been reported that the FBE of 50kWh is not being implemented to all relevant recipients
  - The Reserve Bank study indicates that only about 2 million recipients of a potential 10 million receive their FBE (2021)
  - Only Municipalities determine eligible recipients (indigent registers) – even if Eskom customers
  - Additional efforts are required to ensure that further recipients are identified
  - This is potentially a priority for NECOM to consider
  - The Government Departments will also have a role to play

Possible further policy changes that could be considered

- Eskom's Retail Tariff Plan (RTP) has made proposals to changes to the Inclining block tariff
  - To improve the benefit to poor residential customers, Eskom proposes **removing the IBT structure** and replacing it with a single energy rate charge for Homelight 20A customers.
  - This implies that converting the residential lifeline tariff, Homelight 20A into a single c/kWh energy rate.
  - This will protect the poor where an increased rate will not be paid by poor residential customers (for the second block)
  - This will further support poor residential customers
- The Government has indicated that protecting the poor is priority – other initiatives could be considered

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)

Conclusion

- 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

Primary Energy: Coal

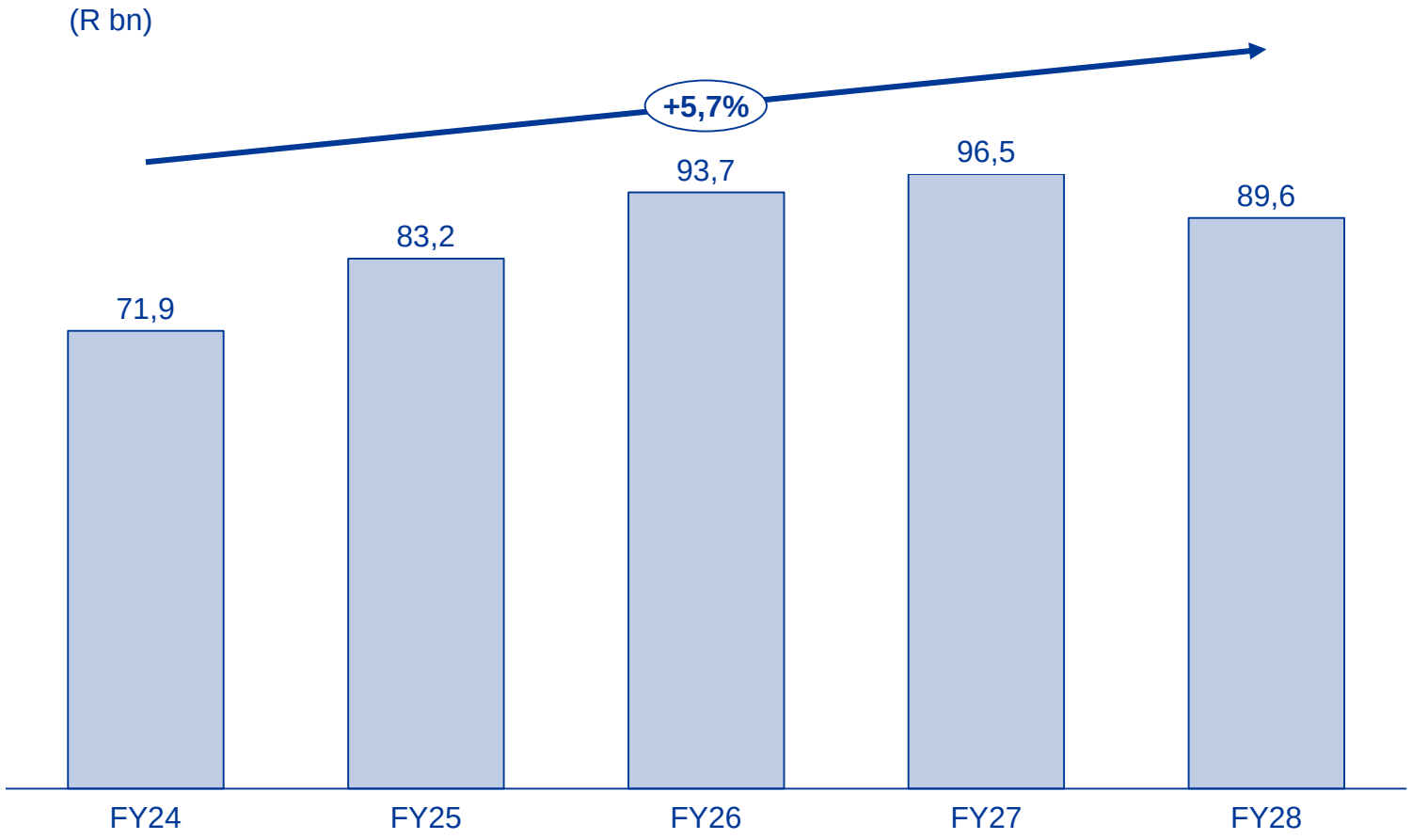
MYPD6 (FY26 – FY28)

November 2024

Introduction

- Coal usage increases at 5,7% on a CAGR basis from FY24 to FY28.
- The IPP program is significantly delayed compared to original estimated plans. This has resulted in an increase in coal usage and costs.
- Decision to keep the older Camden, Grootvlei and Hendrina Power Stations to 2030 does improve available energy capacity but has also resulted in a change in the mix of the power stations utilised which negatively impacts coal usage costs.
- IPP's continue to significantly displace Eskom generation into the future. The reduction in volumes have been taken into account in the MYPD plan submitted to NERSA.
- Mining inflation and related cost increases are different to the general inflation basket and typically trend higher.

Total Coal usage increase by 5.7%



Cost Drivers

- **Inflation:** On average an escalation of 7% assumed for future escalation.
- **Uncontracted new coal to be contracted:** Replacement of old coal contracts/supply based on current supply pricing.
- **Other**:
  - Take or pay contracts as a result of IPP's displacing Eskom generation.
  - Amortisation of capital expenditure/future fuel is higher because the depreciation period is decreasing due to shorter remaining tenure of the long-term contracts
  - Costs to rail coal from Medupi.

Eskom is navigating a dynamic coal environment with many challenges to manage

Coal **supply shortfall** at several power stations with contracts coming to an end

Uncertainty on when the stations will be decommissioned

Rising coal mining costs and the influence of the export prices on the domestic market

Increased pressure from local communities for **localization of Eskom** goods and services procurement

Competition from the export market for **Eskom grade coal** within the 4200-5500kcal range

Growing **Renewable Energy** sector disrupting Eskom's business model and no demand growth

Lack of new mining investment and execution of current mining rights

Investors and Funders pursuing clean energy**.** Signal - **disinvestment** in the South African coal industry by multinationals

Coal is sourced using three types of contracting formats

Long term Cost Plus

- Large mines
- Contracts structured to dedicate coal from a source to a power station
- Near or next to power station
- Transport mode is conveyor
- Establishment cost shared between mining house and Eskom
- Mining house earns a return on its share of capital contributed
- Eskom pays all coal mining related costs

Power Stations

- Kriel
- Kendal
- Lethabo
- Matla
- Tutuka

Long term Fixed Price

- Large multi-product mines
- Near or next to power station
- Transport mode is conveyor
- Establishment cost typically borne by mining house
- Eskom pays a R/ton or R/GJ for coal
- Coal price escalates with pre-determined and contractual escalation formulae which are linked to external indices

Power Stations

- Duvha
- Matimba
- Medupi
- Kusile

Short/Medium term

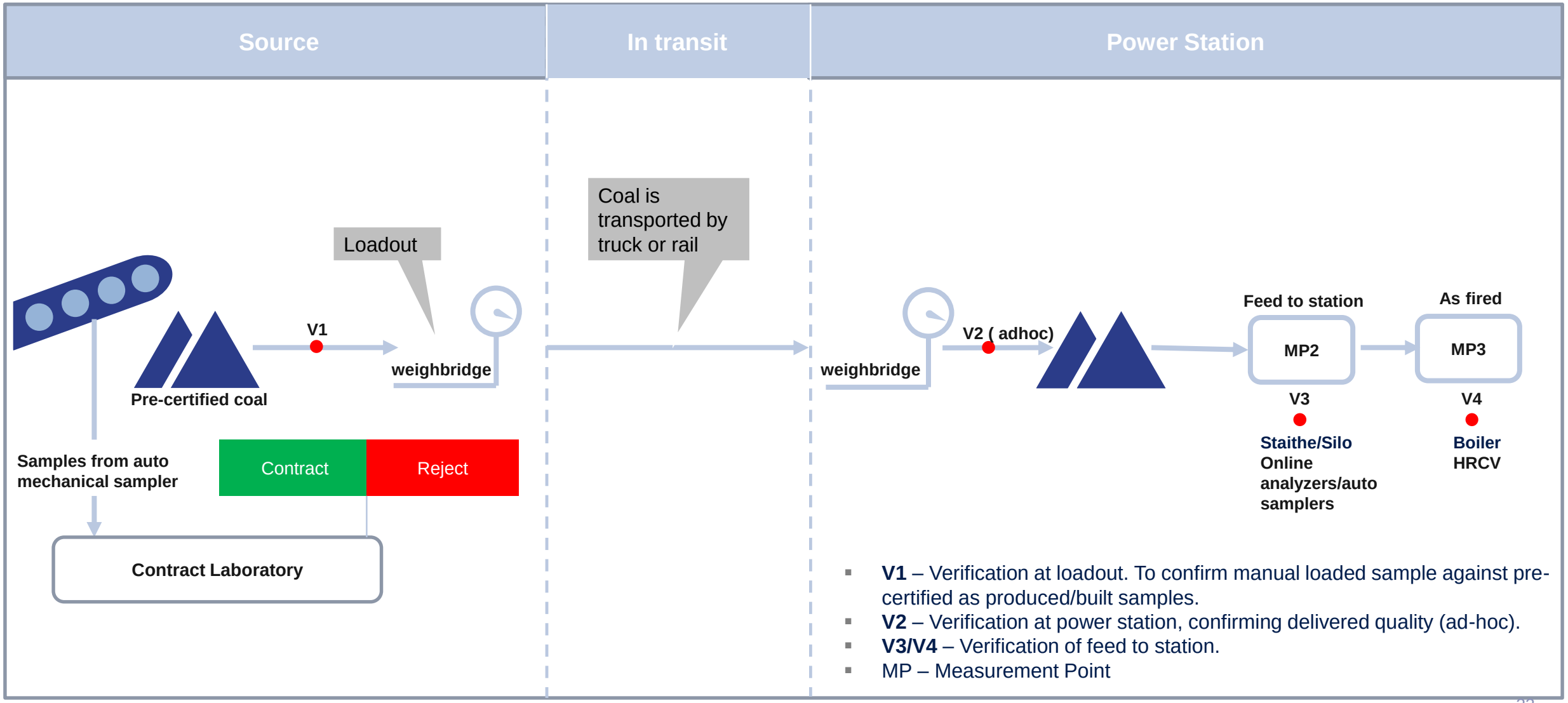
- Bridges the gap between coal required and coal procured from Cost Plus and Long-Term Fixed Price contracts
- Large and/or small mines that are Eskom dedicated and/or multi product mines
- Proximity to power station varies
- Transport mode may be truck, train or conveyor or a combination thereof

Power Stations*

- Arnot
- Camden
- Grootvlei
- Hendrina
- Majuba

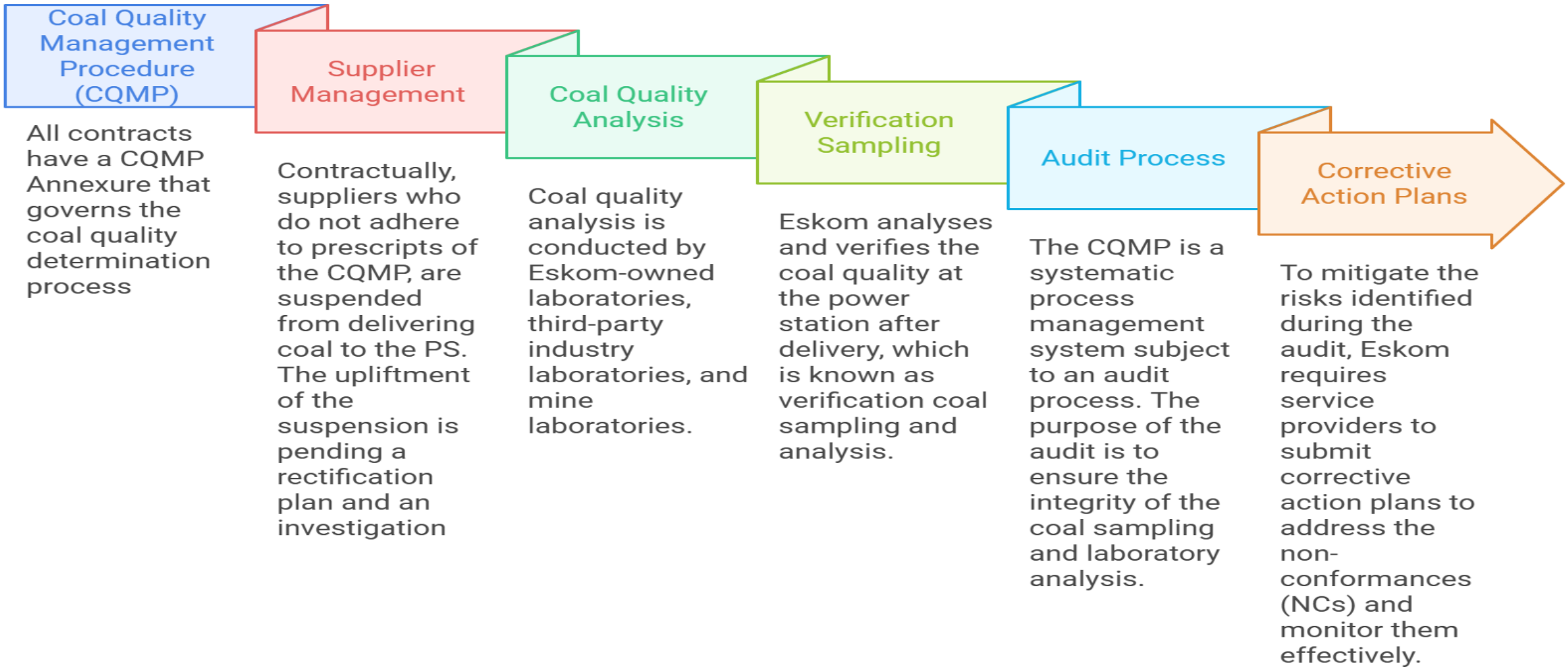
* These stations receive coal from short/medium term contracts only. All other stations receive coal from their primary contract and short/medium term contracts except for Medupi, Matimba and Lethabo which receive coal from dedicated mines only.

The coal quality value chain at a glance



- **V1** – Verification at loadout. To confirm manual loaded sample against pre-certified as produced/built samples.
- **V2** – Verification at power station, confirming delivered quality (ad-hoc).
- **V3/V4** – Verification of feed to station.
- MP – Measurement Point

Coal Quality is rigorously managed



Additional Coal Assurance Initiatives to improve the Coal Quality Management Process

Coal Automation System (CAS) project

- An information and operational technology driven system to automate the coal supply value chain. CAS will improve the controls around coal volumes and qualities. The CAS project will be rolled out from April 2025

Weighbridge Automation Pilot Project

- Eskom is also implementing the Weighbridge Automation Pilot Project by leveraging existing and potentially new weighbridge automation systems at Eskom contracted mines.
- This solution provides real time automated reconciliation between the station and similarly equipped mine weighbridges, and vastly improved reconciliation at non-automated mine weighbridges, while eliminates the potential for fraudulent weighbridge transactions.

Weigh-In-Motion pilot project

- The continuous monitoring of the mass of coal being transported in trucks from mines to power stations. The solution is also able to detect loading from unauthorised sources and offloading at unauthorised locations.
- Tampering with and pilferage from loaded trucks is immediately detected and alerted to, preventing the trucks from entering power stations

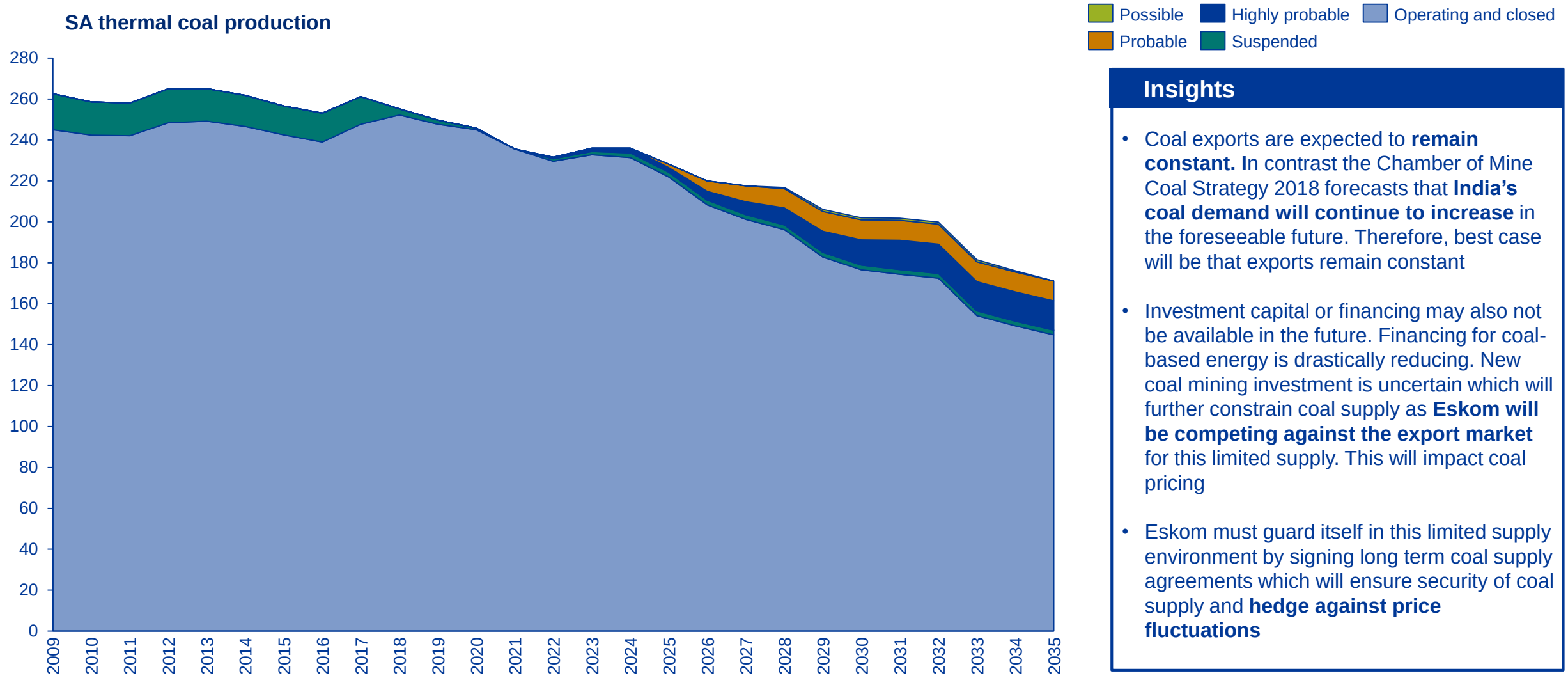
Collaborative Response

- Eskom is working with Security Cluster to deal with criminal syndicates and coal theft in the coal supply value . An active response in collaboration with SAPS, private security companies, Intelligence Agencies, Hawks and SIU is in place to provide dedicated teams to deal with the coal theft/swopping challenge

Coal supply quality challenges have mainly been isolated to 1 station

- Currently coal related load losses (OCLF) is only 0.33% for financial year to date (October 2024) .
- Eskom has isolated coal quality supply challenges to Matla coal supply which is mainly structural in nature.
- PED has focused on the following specific initiatives to improve coal quality supply from Matla Colliery:
  - Selective mining to avoid mining of extremely poor coal quality blocks.
  - Building a strategic stockpile that meets the power station coal quality requirement.
  - Stacking out poor coal quality production as to not feed this coal directly to the power station.
  - Introduction or implementation of controlled mixing/blending at Matla coal stockyard to reduce the variability of the coal quality supplied to Matla Power Station.
  - Assessing beneficiation plant technologies (concept) to improve and reduce the variability of the coal supplied to Matla Power Station.

SA thermal coal production is off its historic highs in 2017/18 and possibly at the beginning of terminal decline



Insights

- Coal exports are expected to **remain constant. I**n contrast the Chamber of Mine Coal Strategy 2018 forecasts that **India's coal demand will continue to increase** in the foreseeable future. Therefore, best case will be that exports remain constant
- Investment capital or financing may also not be available in the future. Financing for coal-based energy is drastically reducing. New coal mining investment is uncertain which will further constrain coal supply as **Eskom will be competing against the export market** for this limited supply. This will impact coal pricing
- Eskom must guard itself in this limited supply environment by signing long term coal supply agreements which will ensure security of coal supply and **hedge against price fluctuations**

Source: Wood Mackenzie. South Africa Coal Production Data CSS_Q3_2024_update

Eskom procures **Coal and Sorbent** in line with the PPPFA process that is legislated and transparent

An overview of the open tender process is shown below:

- Eskom relies on the **market to respond** to the enquiries issued and will not coerce anyone to tender.
- All respondents to a tender are evaluated on the same basis and only tenderers who meet the eligibility criteria and submit the mandatory tender returnable documents can be evaluated further.
- The tenderers who met the eligibility and technical criteria are shortlisted and ranked based on the tendered price as per the PPPFA.
- Further evaluations and price negotiations are then held with the shortlisted tenderers:
  - The evaluations also include a combustion test on a sample of the coal offered to determine its suitability for Eskom's boilers.
  - These negotiations also cover the terms and conditions of contract, including but not limited to, quantities, qualities as well as supplier development, localisation and industrialisation targets.
- Eskom always endeavours to conclude contracts with the highest ranked / lowest priced suppliers first before moving on to the next best offer.
- All contracts are now concluded on a Delivered basis (including transport to the power station).
- The open tender process timelines are typically in the range of 12 to 18 months.
- Eskom's approach to coal price negotiations for fixed-price indexed contracts is predicated on the cost of mining plus a risk adjusted fair return on investment.
- Eskom will always aspire to **ensure security of supply at optimal prices**. This is vital to ensure **a cost effective and predictable price path necessary for a regulated entity.**

The timelines to conclude coal contracts are dependent on the timely development of resources, the readiness of coal mining operations and successful negotiations with suppliers. Hence the timeline for coal procurement has distinctive dependencies when compared to the "traditional" procurement process

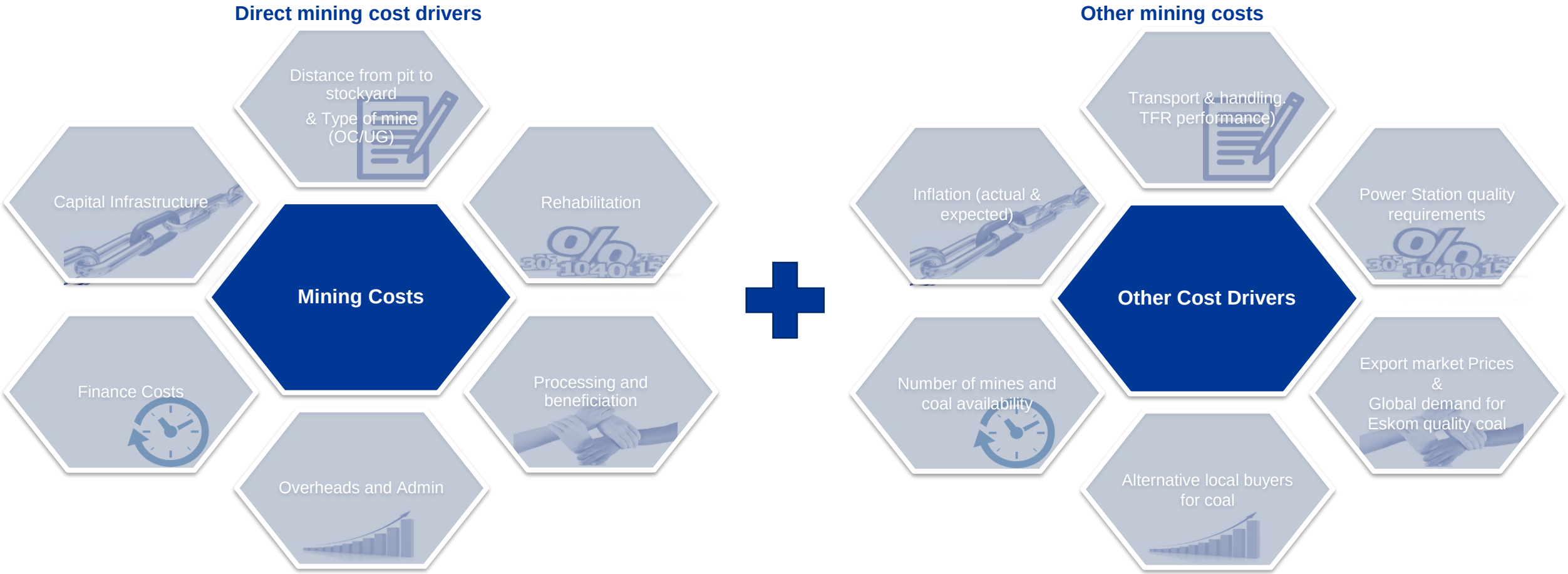
Bottom-Up Cost Analysis - Various factors influence the delivered cost of coal. These factors will also apply to Sorbent but to different extents

Factor	Specifics
Location of resource	• Coal from mines close or adjacent to a power station have much lower transport cost
Depth of coal	• Deeper coal is more expensive to mine • Underground mines generally have a high fixed cost (shafts, ventilation etc)
Geology	• Intrusions, faults, partings and rock conditions can significantly reduce equipment productivity and increase costs
In-situ qualities	• Low in-situ coal qualities require high cost selective mining, or further processing ('washing') with corresponding costs and yield losses
Size of resource	• Larger resources generally support efficient operations and full amortisation of establishment capital
Export potential of resource	• Eskom coal sourced from the tailings of export mines (''middlings coal') was generally significantly cheaper as it has historically been a waste product. But increased demand for this grade of coal in the export market has led to prices increasing
Mining expertise	• Miners with greater expertise and experience will generally mine more efficiently and with higher reliability
Mining Equipment	• Most of the mining equipment is imported and subject to rate of exchange, with the poor Rand value these items contribute significantly to mining costs

Mines can have vastly different costs for producing comparable coal
These factors are largely related to the nature of the coal resource

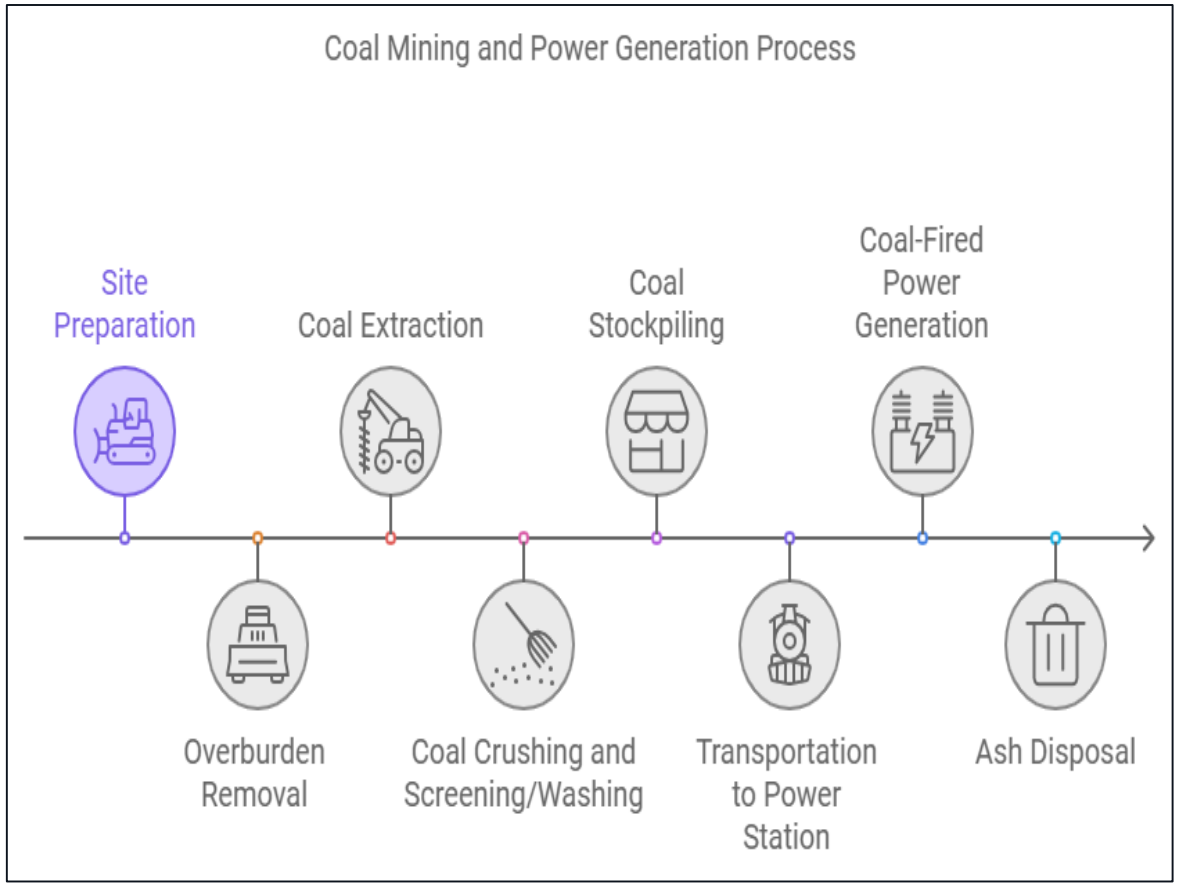
Source: PED Fuel Sourcing

Cost drivers that impact Eskom's coal costs are different to the general PPI or CPI basket. Hence the inflation expectation cannot be the same as general PPI or CPI



Source: PED Fuel Sourcing

Costs are incurred at each step in the mining and generation process



- **Site Preparation**
  - Land clearing
  - Removal of vegetation and topsoil
- **Overburden Removal**
  - Stripping of overburden (soil and rock above coal seam)
  - Use of heavy machinery (excavators, bulldozers)
- **Coal Extraction**
  - Drilling and blasting (if necessary)
  - Excavation of coal using shovels and loaders
  - Transport of coal to the surface
- **Coal Crushing and Screening**
  - Crushing of large coal pieces
  - Screening to separate different sizes
- **Coal Stockpiling**
  - Temporary storage of coal
  - Quality control (sampling for moisture and ash content)
- **Transportation to, and coal management at, Power Station**

- **The costs at each mine differ, depending on the type of mine and the characteristics of the operation**

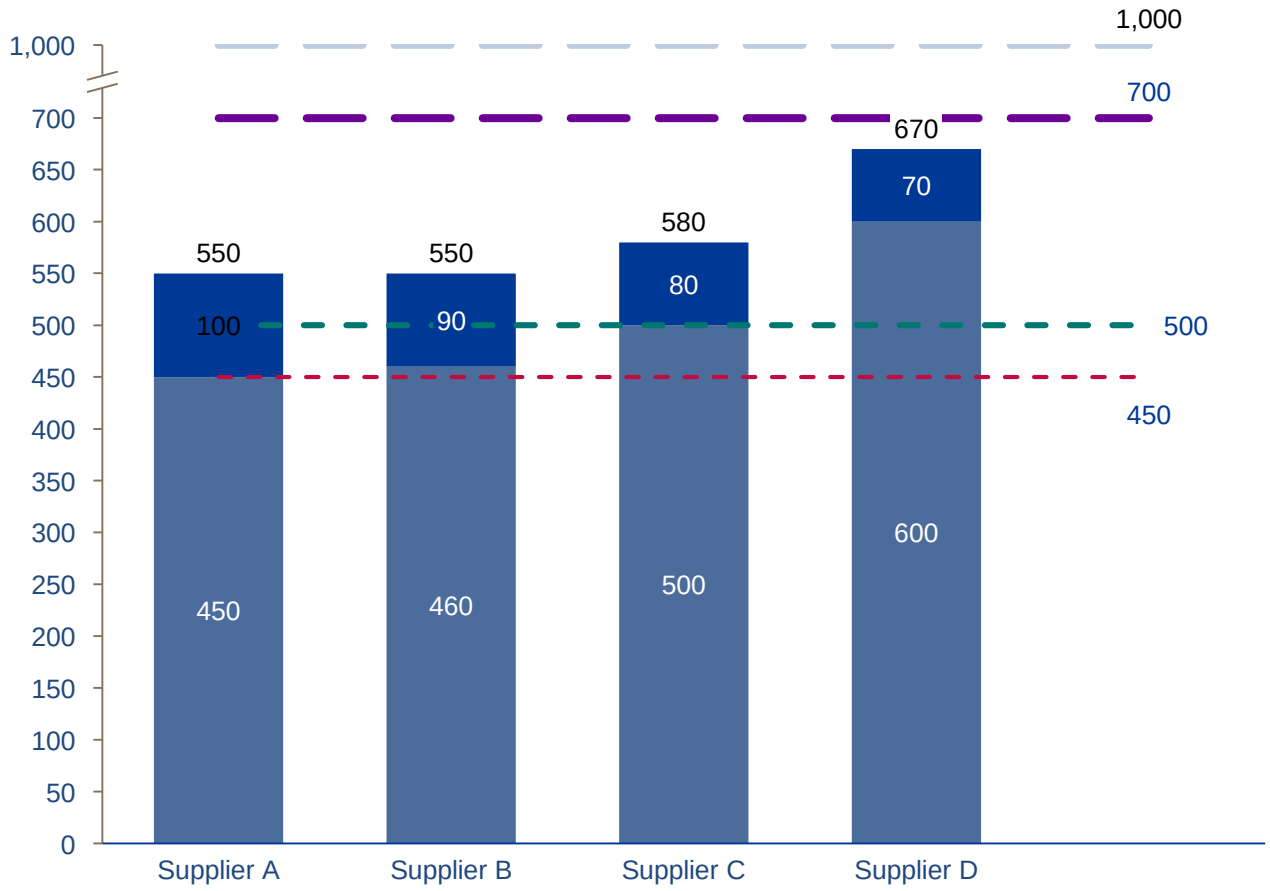
Eskom analyses mining costs in detail (where possible) before price negotiations commence and contracts are concluded

GEOLOGY AND MINING	
Underground/ Opencast	**Opencast Initially and will mine from Highwall later**
Processing ie. crush/screen washed	**Mixed, Crush, screen and wash**
Depth	Multi seam deposit and the seams occur from 10m up
Seam Thickness	Cut off of 1.0m and max 4.3m
Strip Ratio(OB/Coal thick.)	4.5
ROM	91 463
Yield	82%
Sales	75 000

Capital
Mining right/ Exploration
Land purchases, infrastructure
-Total
Mining
Mining-Opencast
Hauling(Pit to Plant ROM Stockyard)
Rehabilitation
-Total
Processing
-Load to plant
-Crush/screen, Wash, Discards
-Total
Precertification
-Build, Load, Haul to plant, Tarp
-Total
Management and Finance
Overheads, Finance costs
TOTAL
GRAND TOTAL (R/T)
Rands per Gigajoule
As Rec
R/G cost based
Margin 12%
R/Gj including Margin

Each negotiation is also preceded by an analysis of the market (from an external perspective), at that time, to understand market factors

Benchmarks



Insights

- Tendered prices are compared with external and internal coal prices to assess the reasonability of the tendered price.

* EPP: Export Parity Price

Negotiated coal contracts include contractual coal price adjustments (CPA) that are linked to external published indices

Cost Component	Proportion	Index and Source Table	Base Date Index Value (B)	Base Date	Frequency of Adjustments
Labour	26%	SEIFSA labour index (Table C4)			Annually
Diesel	8%	DME 0.05% Sulphur Reef			Monthly
Electricity	4%	Stats SA Electricity PPI (P0142.1, Table 3)			Annually
Mining Supplies	6%	Stats SA General and special purpose machinery (P0142.1, Table 1)			Annually
	4.5%	Stats SA Rubber and plastic products (P0142.1, Table 1)			Annually
	4.5%	Stats SA Structural and fabricated metal products (P0142.1 Table 1)			Annually
Overheads	7.5%	Stats SA CPI headline items (P0141 Table A all items)			Annually
	7.5%	Stats SA PPI final manufactured goods (P0142.1, Table 1)			Annually
Profit & Capital	11%	Stats SA CPI headline items (P0141 Table A all items)			Annually
	11%	Stats SA PPI Coal and Gas (P0142.1, Table 4)			Annually
Fixed	10%	Fixed			Not applicable
Total	**100%**				

Contact Price Adjustment

- Coal contracts longer than 12 months are adjusted annually on the anniversary date of the contract
- The diesel component is adjusted monthly
- CPA calculation is transparent. Anyone can therefore verify and calculate the adjustment.

Source: PED Fuel Sourcing

Committed or signed contracts have generally many obligations behind them for all the counter parties

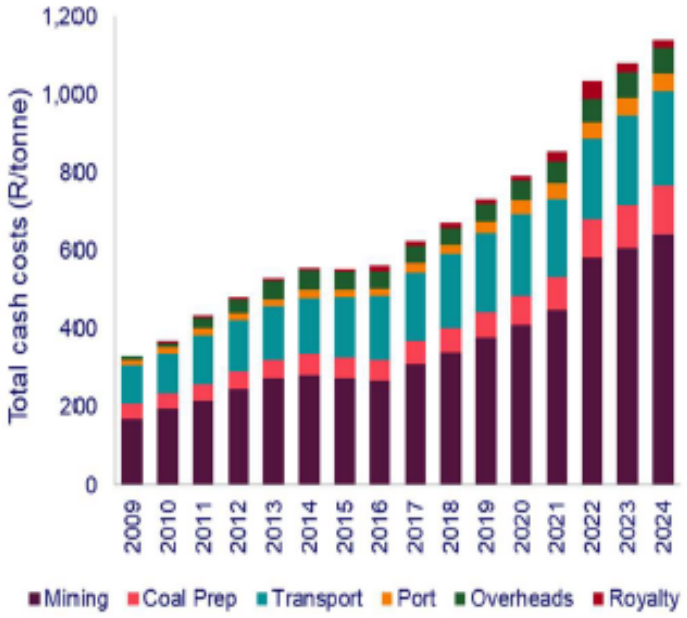
- Potential coal suppliers spend significant costs (mining exploration costs) to develop their resource at risk. This spend is before any contract is signed and usually does not get financed by banks or financial institutions.
- Thereafter potential suppliers develop their mine to an investable business case (the cost to get to this stage is usually also done at risk without the availability of finance) by obtaining mining permits, environmental approvals, EIA's, EMPRS's, social and labour plans, etc.,
- Once a contract is signed with Eskom, the mining company begins to develop the project by typically doing the following:
    - Obtain finance to build the mine, buy equipment, buy plant, commit to insurance agreements, guarantees for rehabilitation, etc.
    - Commit to logistics solutions to deliver their coal (offloading and loading facilities, rail siding agreements, trucks, etc).
    - Sell some equity in their business to facilitate financing as financing for coal projects is very limited and expensive.
    - Funders require personal guarantees, bonds, personal assets put up for as collateral, etc.
- So, it is very difficult to go back and renegotiate a signed and committed coal contract because suppliers have made huge commitments on the back of the signed deal. Any re-negotiation could significantly affect their financial viability, their contracted value chain and potentially thousands of jobs.

Expert coal analysts indicate that mining costs have increased in excess of 8,5% (CAGR) with continued upward pressure; but the weakening SA/USD exchange rate has kept the SA export coal competitive

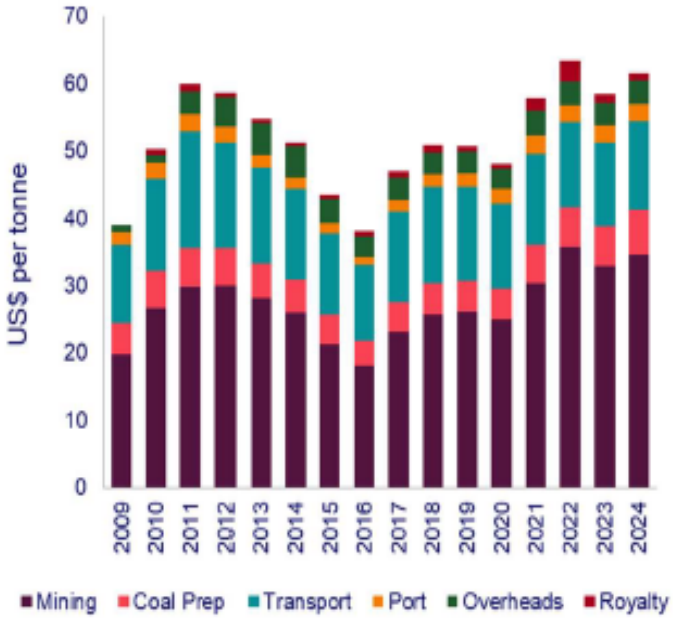
Upward pressure for South African costs continue

Cost increases have risen 8.5% year-on-year over the past decade in Rand terms, but weaker FX has kept South Africa competitive within the export market. Export costs in US$ terms jumped above 2011 levels again in 2022.

SA ave total thermal export cash costs (Rand/t)



SA ave total thermal export cash costs (US$/t)



Wood Mackenzie

Source: Wood Mackenzie, Dataset May 2024, Nominal terms

23

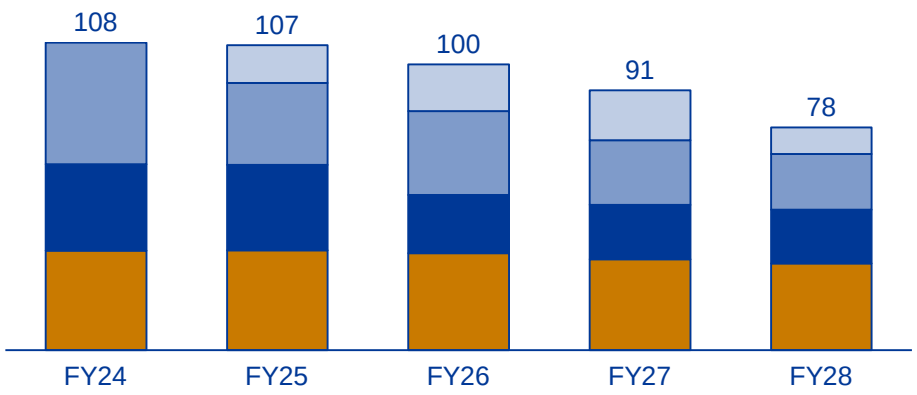
Impact of ZAR/USD exchange rate

- Weak exchange rate has resulted in SA coal exporters still receiving good returns in ZAR terms for exported coal.
- Weak exchange rate has cushioned SA exporters from rising costs eating into profits.
- Exchange rate has kept SA coal prices reasonable/affordable for global markets.
- Exchange rates are not expected to strengthen significantly but are expected to remain in the R16 – R18 to the USD range for the MYPD6 period. Could weaken with, at least, the differential in USA vs SA inflation.

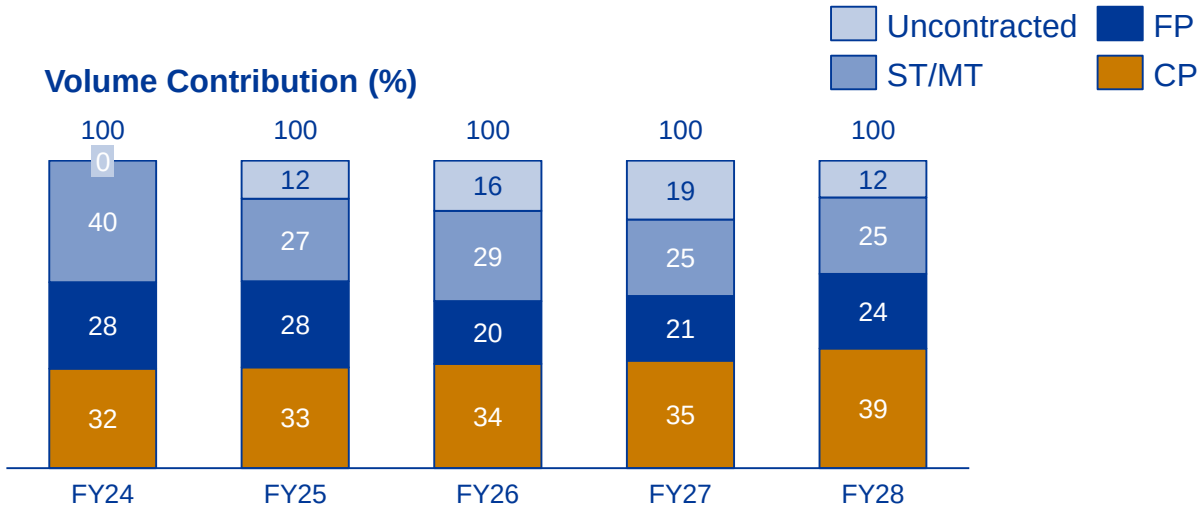
Source: Wood Mackenzie. 2024. Global Thermal Coal. Presentation to Eskom PED.

Total coal purchases increase by 5% - on a CAGR basis.
Between 81% and 88% of Eskom's future requirements are contracted

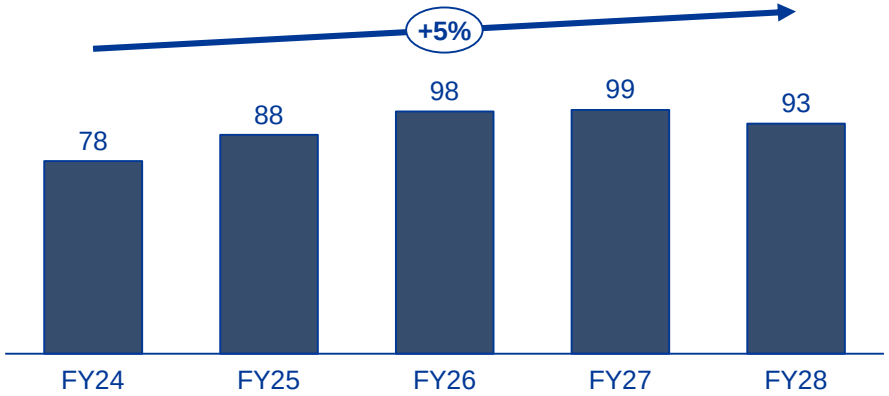
Volume (Mtons)



Volume Contribution (%)



Coal Purchases Costs (Rbn)



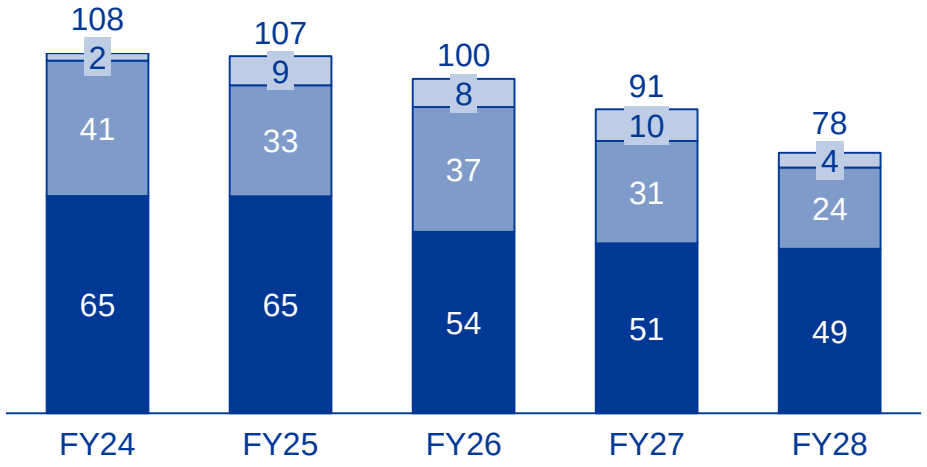
Insights

- Eskom has already contracted between 81% and 88% of its future annual supply requirements. Large portions of this have some form of guaranteed offtake or financial commitment.
- Therefore Eskom can technically only influence approximately between 18% and 21% of its future supply from a coal pricing perspective.
- Eskom contracts coal in terms of the PPPFA legislation (open tender).
- Eskom negotiates with coal suppliers taking factors like geology of the resource, mining methods, stripping ratios, quality of coal, beneficiation methods, infrastructure costs, etc
- Eskom negotiates with coal suppliers using a multi disciplinary team of Mining engineers, geologists, financial analysts, commercial experts, legal experts, metallurgists to inform the company of the best outcome before conclusion of contract. This is then approved at bid adjudicating committees before contract signature.

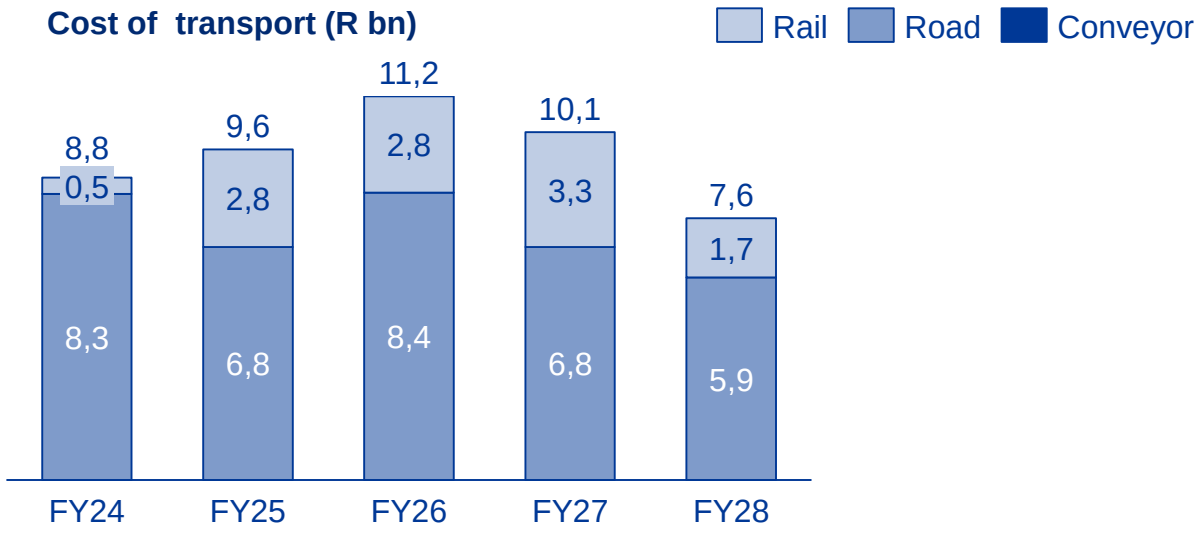
Source: PED Finance

Transport costs add approximately 25% to the delivered cost of coal

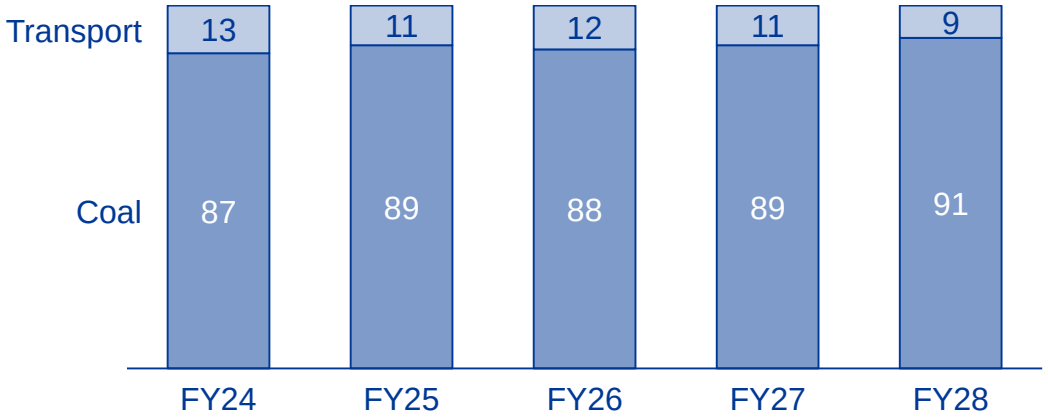
Mode of transport (Mt)



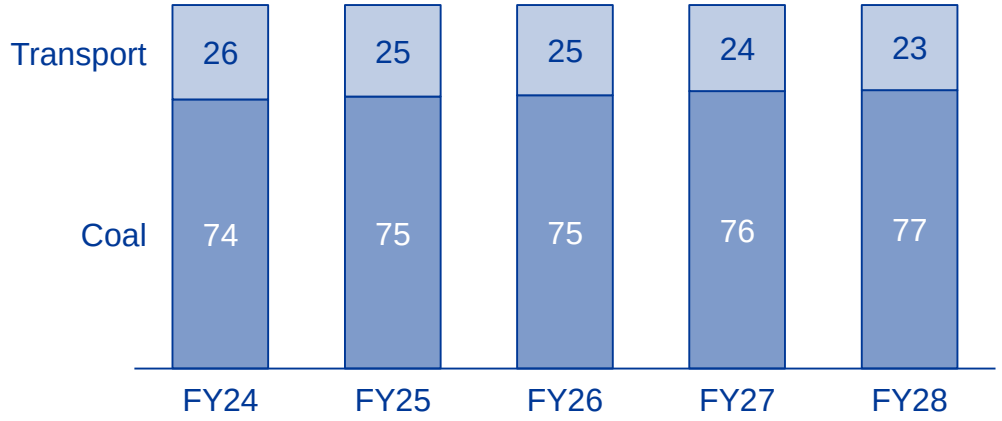
Cost of transport (R bn)



Transport costs as % of total coal cost

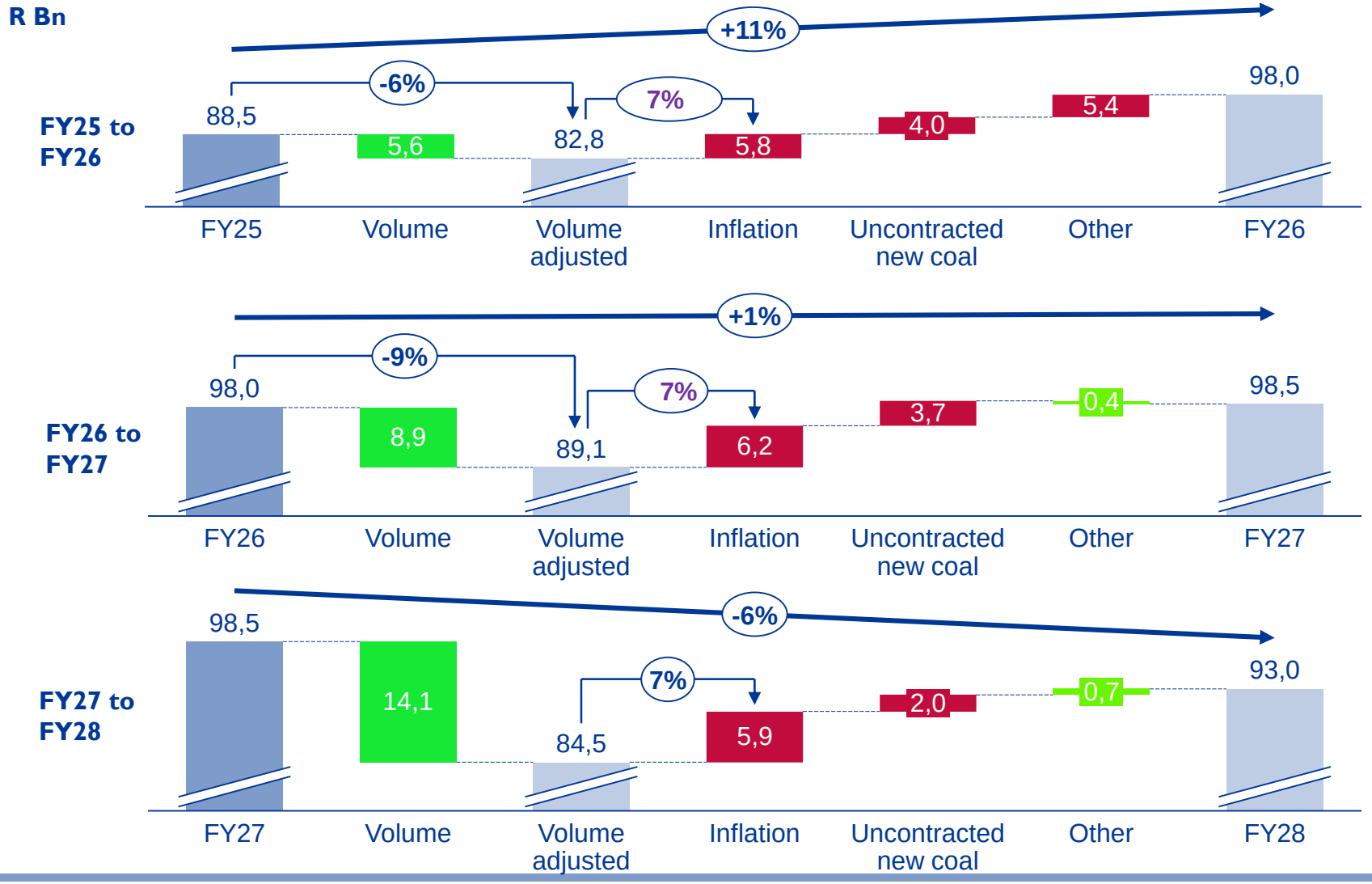


Transport costs as % of STMT coal cost



Source: PED Finance

Cost drivers impacting coal usage costs in the MYPD 6 application



Cost Drivers

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- **Uncontracted new coal to be contracted:** Replacement of old coal contracts/supply based on current supply pricing.
- **Other**: Take or pay contracts as a result of IPP's displacing Eskom generation.
- Amortisation of capital expenditure/future fuel is higher because the depreciation period is decreasing due to shorter remaining tenure of the long-term contracts
- Costs to rail coal from Medupi.

Why we are planning to move coal from Medupi to Witbank

- Eskom has an approximately 19,5 Mtons of total stock/coal at Medupi Power Station with approximately 16 Mtons of coal on the excess strategic stockpile.
- Eskom is fully contracted at Medupi and Matimba Power Station.
- Eskom will consume the coal stored on the excess stockpile if and when Medupi Power Station produces energy that is above the minimum contracted levels with the mine. This will take several years to run down/consume the stockpile into the future.
- While Eskom is consuming this excess coal stockpile over time, it will need to manage the excess coal stockpile from spontaneous combustion, degradation and other factors.
- Should, for any reason, Eskom not be able to consume this coal into the future, then Eskom will be faced with an environmental exposure – (Coal mined cannot be put back underground. It has to be consumed or utilised). Thus, Eskom will need to deal with this matter in a prudent manner should any risk materialise.
- Transporting coal from Lephalale to Witbank is a form of risk mitigation.
- In transporting coal from Lephalale to Witbank, Eskom will consider the most efficient transport solutions i.e. first rail, a combination of rail and road and lastly road.
- The cost of the coal stored on the excess strategic stockpile is effectively a sunk cost. It is the logistics cost that becomes a relevant cost. Eskom will thus evaluate this cost against the cost of alternative supply for that station.
- The Medupi coal at this stage will only be able to be burnt at Kusile Power Station and in very limited quantities and Kendal Power Station.

Conclusion

- Coal usage increases at 5,7% on a CAGR basis from FY24 to FY28.
- The IPP program is significantly delayed compared to original estimated plans. This has resulted in an increase in coal usage and costs.
- Decision to keep the older Camden, Grootvlei and Hendrina Power Stations to 2030 does improve available energy capacity but has also resulted in a change in the mix of the power stations utilised which negatively impacts coal usage costs.
- IPP's continue to significantly displace Eskom generation into the future. The reduction in volumes have been taken into account in the MYPD plan submitted to NERSA.
- Mining inflation and related cost increases are different to the general inflation basket and typically trend higher.

Thank you

Proposed further details to be provided at public hearings

Item	Public Hearing Venue	Additional written comments
Economic Impact studies	Done at Nelspruit	Have submitted studies
Generation Performance and Maintenance	Klerksdorp	Have provided details, further details can be provided
Understanding NT Debt support	Klerksdorp	Will provide details, if needed
Eskom contribution to economic impact of price increase for rest of customer base	Klerksdorp	Will provide details, if needed
Sales projections	Klerksdorp	Will provide details, if needed
Munic Debt, arrear debt	Klerksdorp	Will provide details, if needed
Coal	Polokwane	Will provide details, if needed
Opex	Polokwane	Will provide details, if needed