

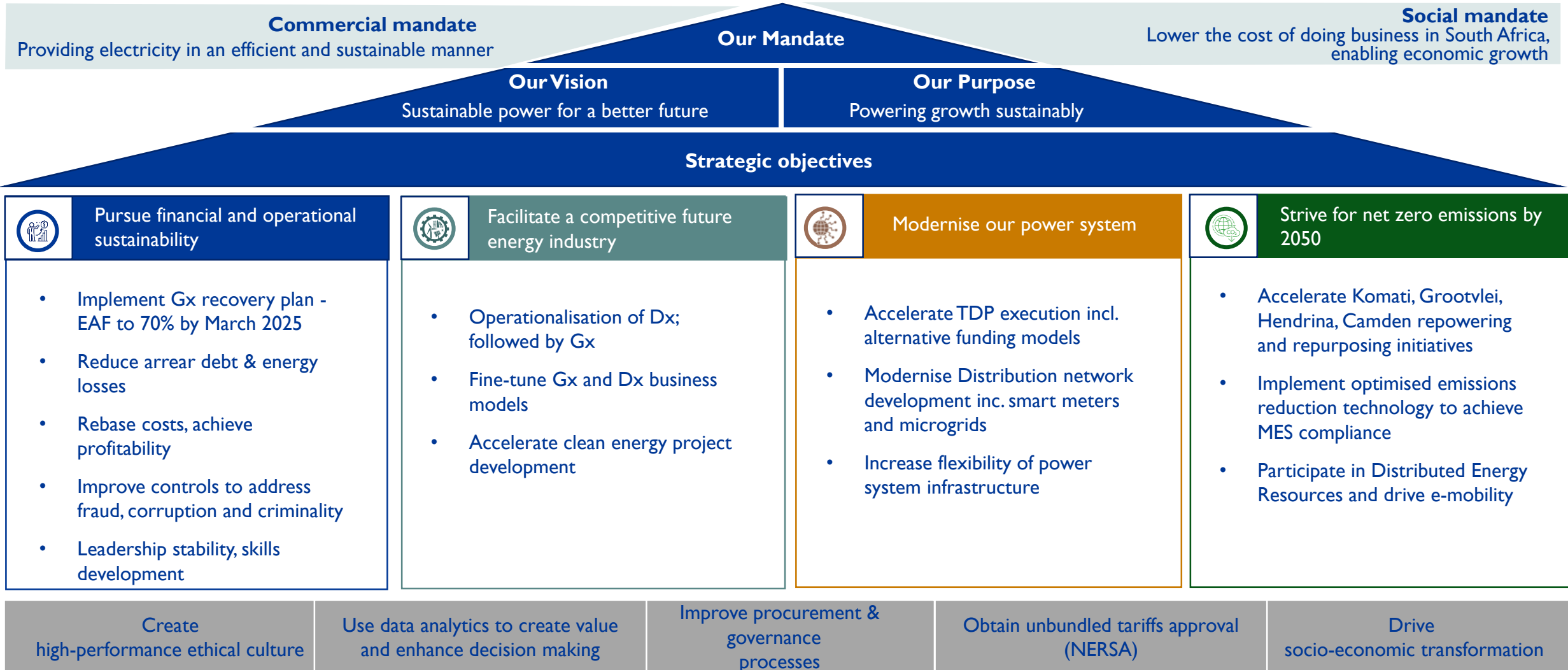
# *MYPD 6 Application*

**NERSA Public Hearings**  
**Soweto**

3 December 2024



# The Eskom Strategic turnaround is based on four strategic objectives to deliver the organisation's dual mandate



## OUR VALUES:



Zero Harm



Integrity



Innovation



Sinobuntu



Customer Satisfaction



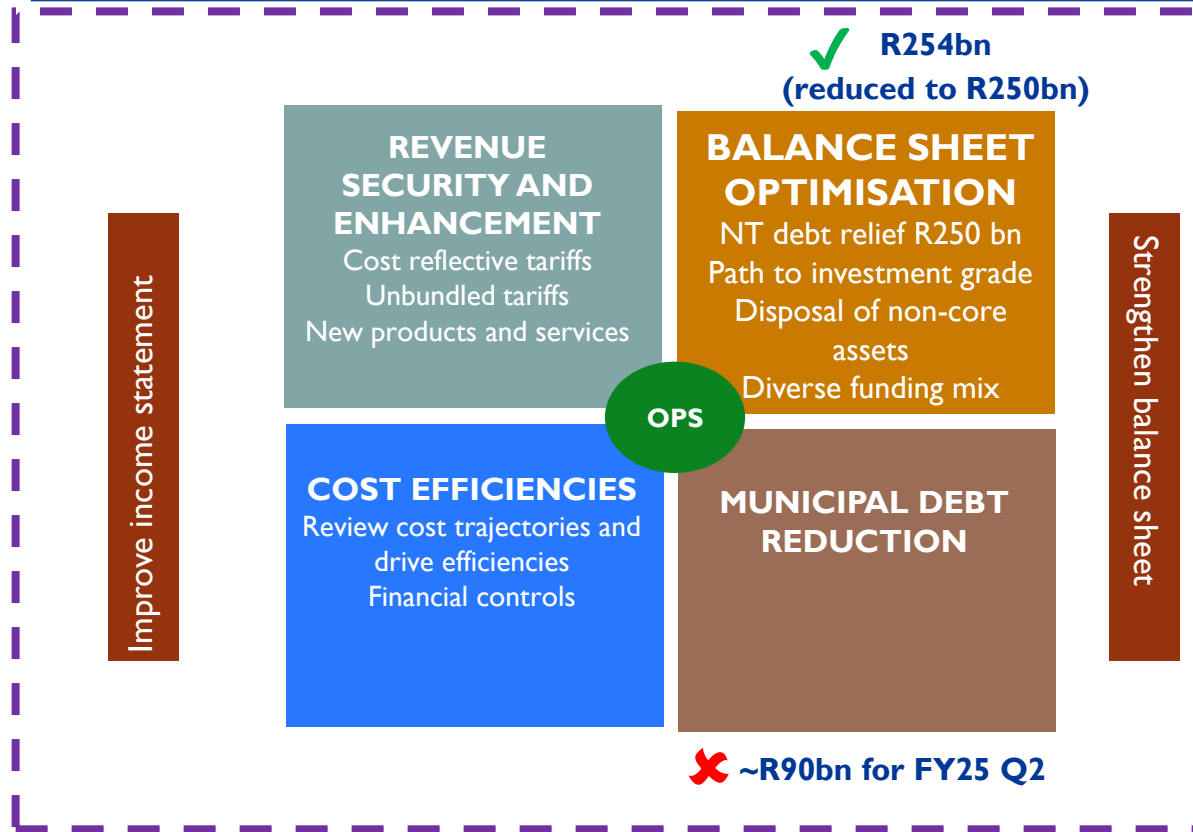
Excellence

## 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

# The tariff increase is a key component to achieving Eskom's financial turnaround

## Pillars of our financial strategy



## Insights

- Four pillars to financial recovery: (1) **Revenue security**, (2) **debt reduction**, (3) **cost containment** and (4) **reduction in municipal non-payment**
- We have implemented **cost efficiencies** in our cost base, for the last 3 financial years. To date operational performance has led to reduce diesel expenditure.
- The **debt relief** allowed the business to manage its high debt service costs and cash, to allocate the financial resources needed for Generation (to address the maintenance backlog and adequately prepare for outages). This served as the critical precursor for improved plant performance and financial recovery
- Limited success with the Municipal Debt Relief programme** with low adherence to the debt relief conditions. Municipal debt including metros **growing by more than R12 bn/annum**
- All four pillars need to be addressed at the same time if Eskom is to become financially independent

## Key risks



- 1 Tariff
- 2 Gx plant performance
- 3 IPP delays
- 4 Municipality non-payment
- 5 Unsustainable borrowings on the balance sheet

# 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 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

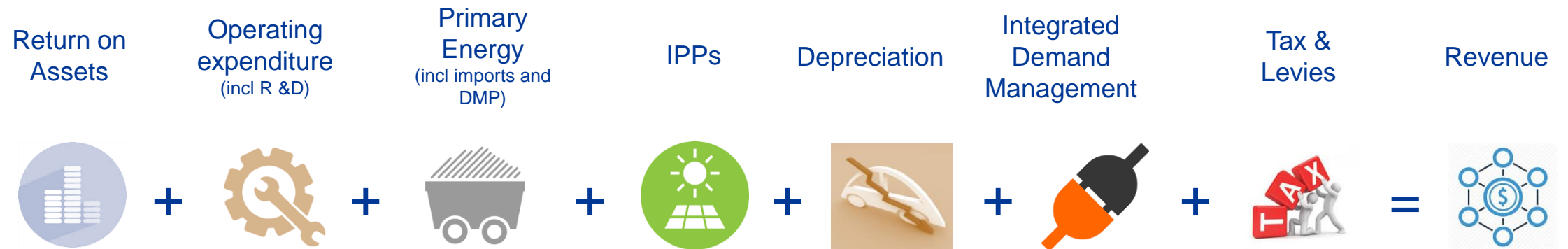
# We are making progress in stopping the leakage by addressing fraud and corruption



- 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.

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
<b>MYPD6 Allowable Revenue</b>			<b>336 057</b>	<b>428 798</b>	<b>481 355</b>	<b>536 778</b>	<b>585 691</b>	<b>641 450</b>
Add: Approved RCA/court order for liquidation	RCA		16 109	16 765	14 000	-	-	-
<b>TOTAL MYPD6 Allowable Revenue</b>	<b>R'm</b>		<b>352 166</b>	<b>445 563</b>	<b>495 355</b>	<b>536 778</b>	<b>585 691</b>	<b>641 450</b>



# 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

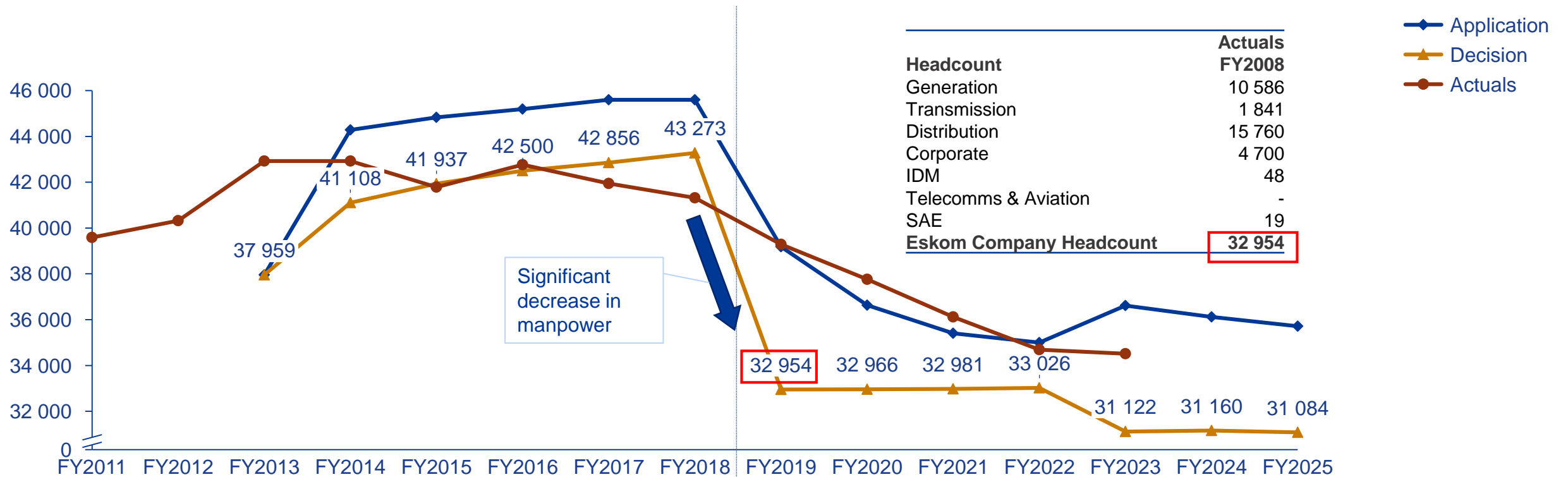
EPP, Codes, Strategic provides direction

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**)

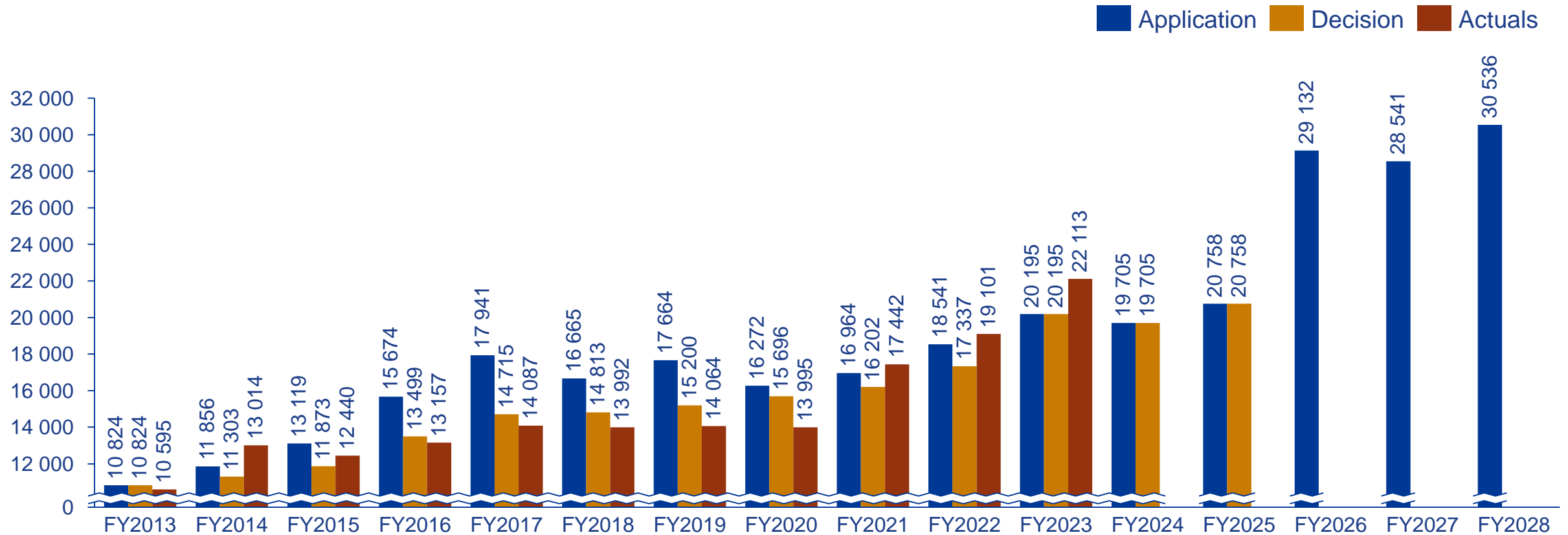
# Employee numbers have reduced since over last few years , there is a gap in FY 2023



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

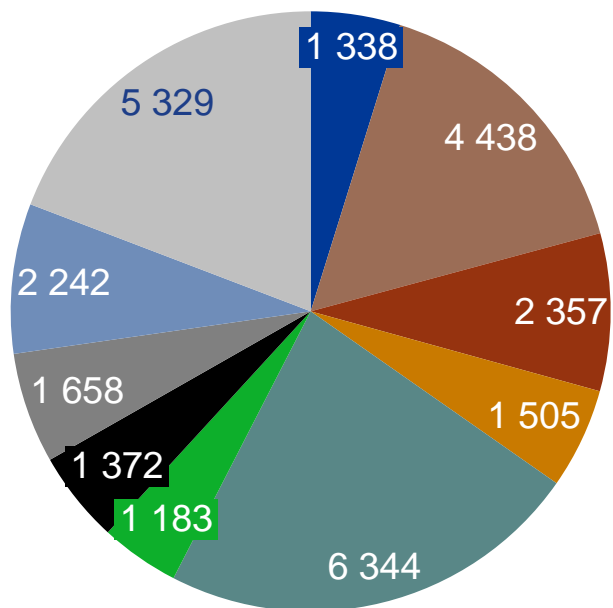


- Further maintenance required in accordance Generation operational recovery plan – 8 priority stations
- Requirement for continued operations –move from shift from “shut down” of older power stations
- More Kusile units operational
- Koeberg long-term outage

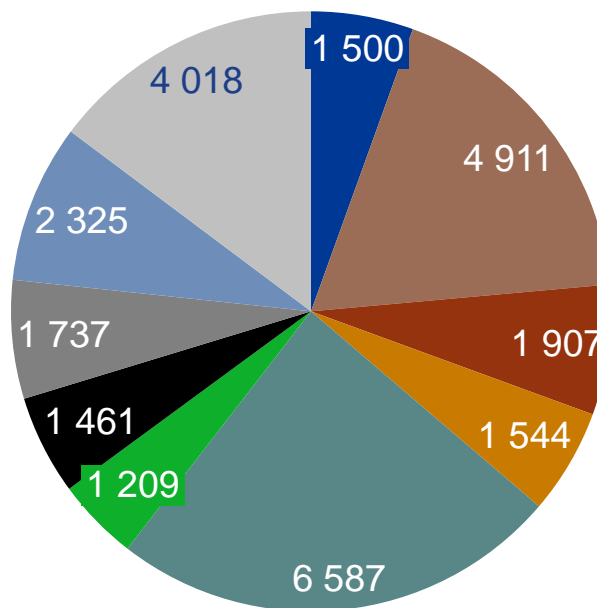
# Other operating cost split into cost items (Rm)

Cost splits are only items that are greater than R1 billion

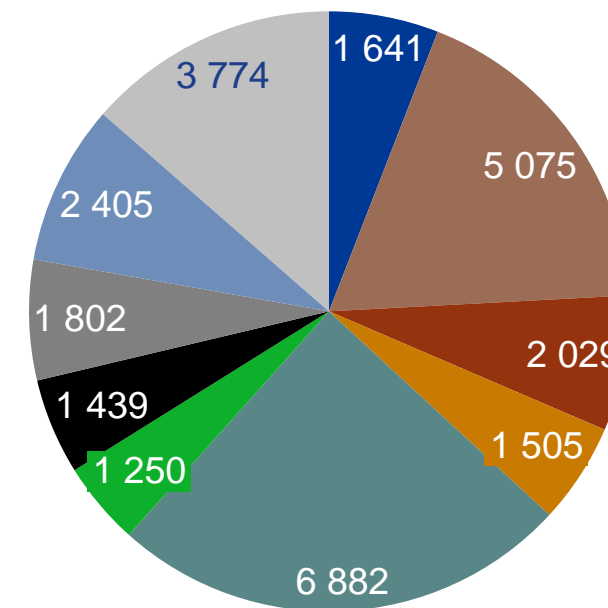
**FY2026**



**FY2027**



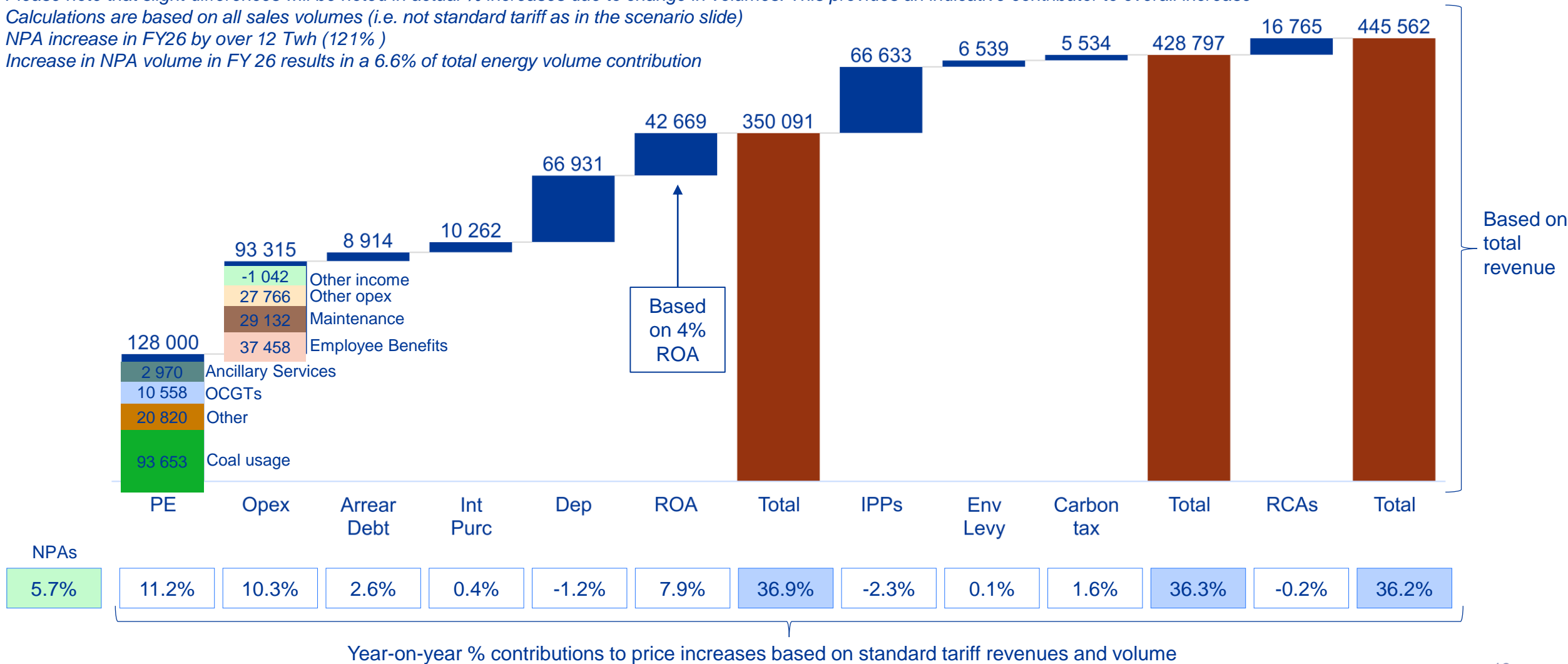
**FY2028**



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

# FY2026 revenue build-up and contributions to total price increase

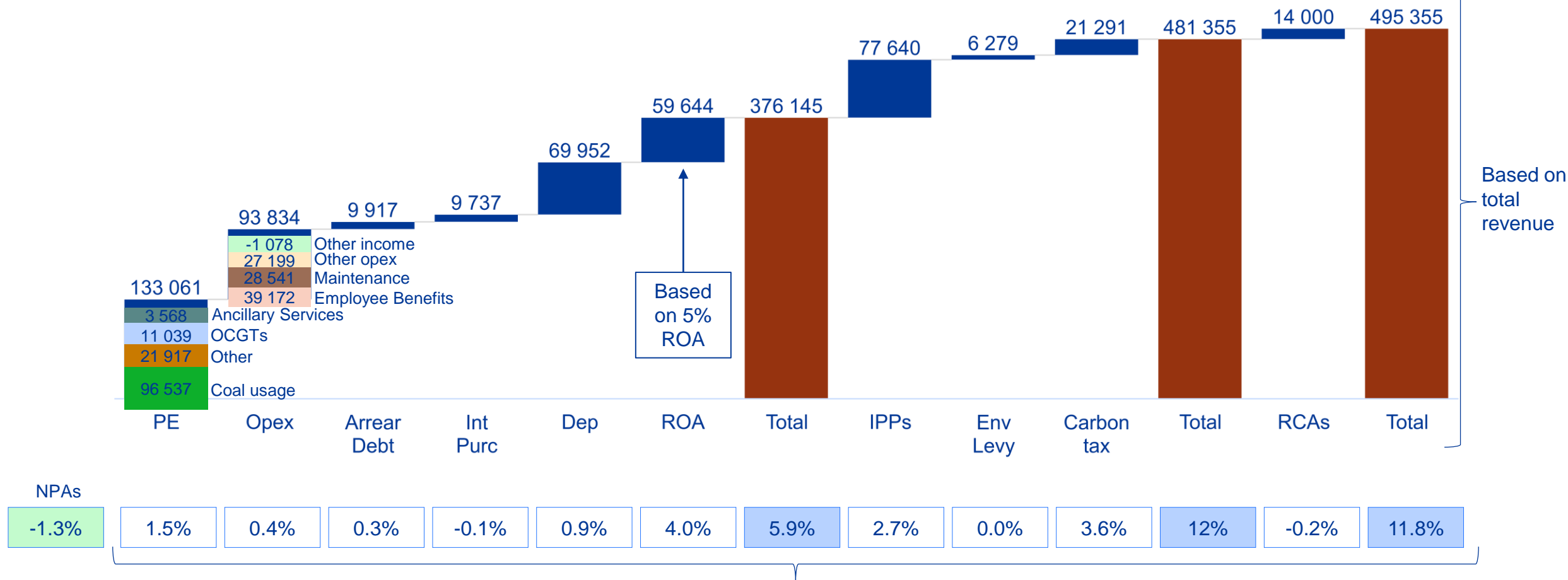
- The FY26 % increase is in comparison to the FY 25 NERSA decision
- Please note that slight differences will be noted in actual % increases due to change in volumes. This provides an indicative contributor to overall increase
- Calculations are based on all sales volumes (i.e. not standard tariff as 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



# 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)



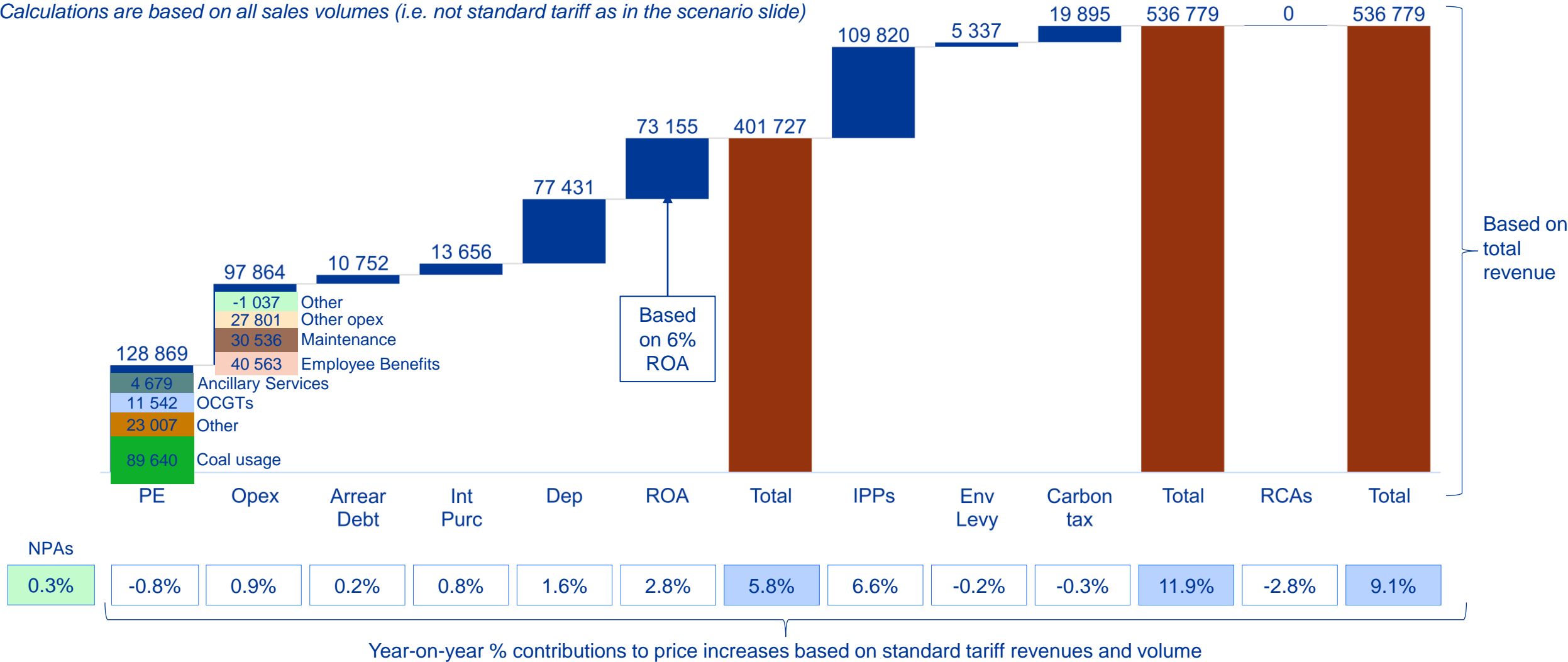
Year-on-year % contributions to price increases based on standard tariff revenues and volume

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)



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



## 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

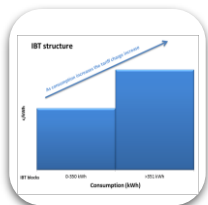
- Eskom provides FBE to customers in their area of supply as an agent for the municipalities



## 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)

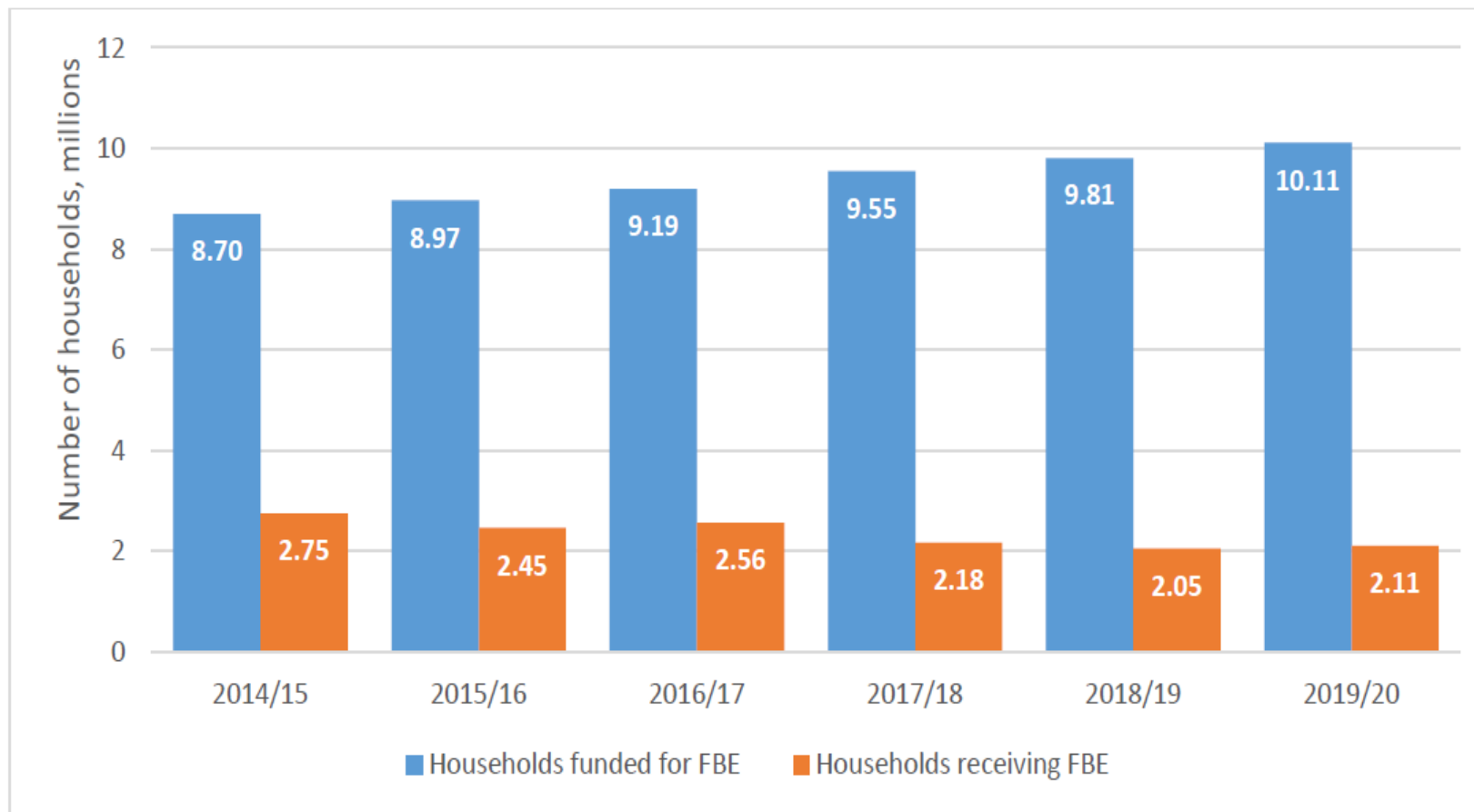
The IBT was implemented by NERSA to cushion low-income households that use very little electricity.

- 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 Performance Overview

3 December 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%<sup>1</sup>  
EAF

70%<sup>1</sup>  
EAF



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

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



**250 days**

of NO loadshedding

(As at 3 December 2024)



**R17+ bn**

In reduced diesel spend (1 April – 30 November 2024 vs same period last year)



**~6GW**

Reduction in unplanned load losses (18GW in May 23 vs 12GWYTD Oct 24)



**62.7% 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)



**11.8%**

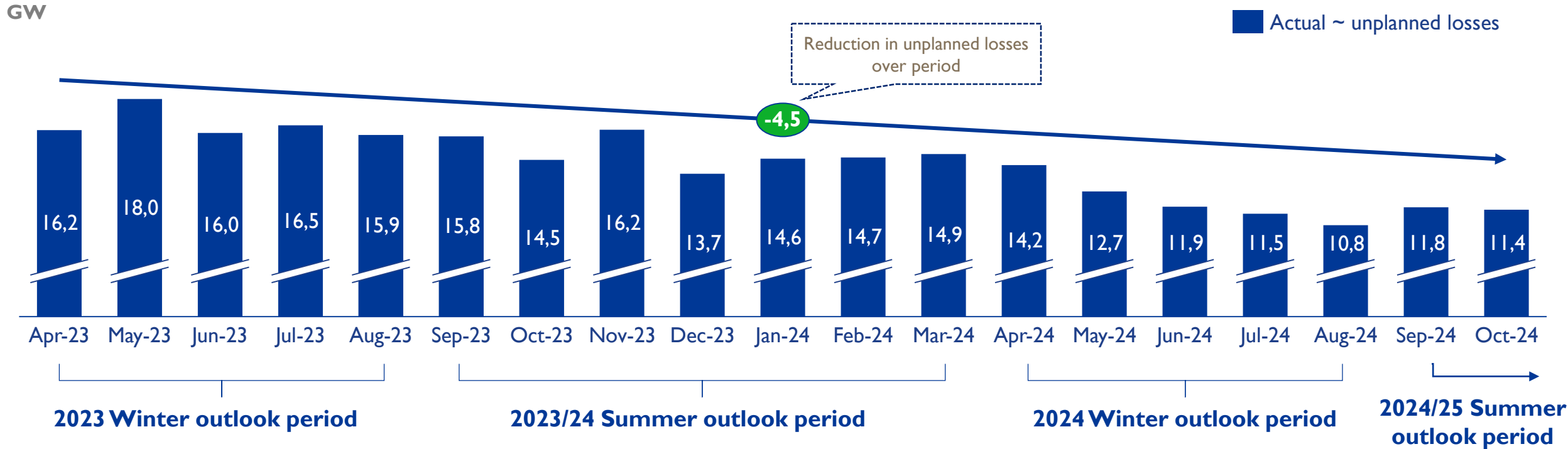
Planned maintenance, compared higher year-on-year than the previous two years

(As at 2 December 2024)

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



## Eskom Gx actual performance on unplanned losses<sup>1</sup>

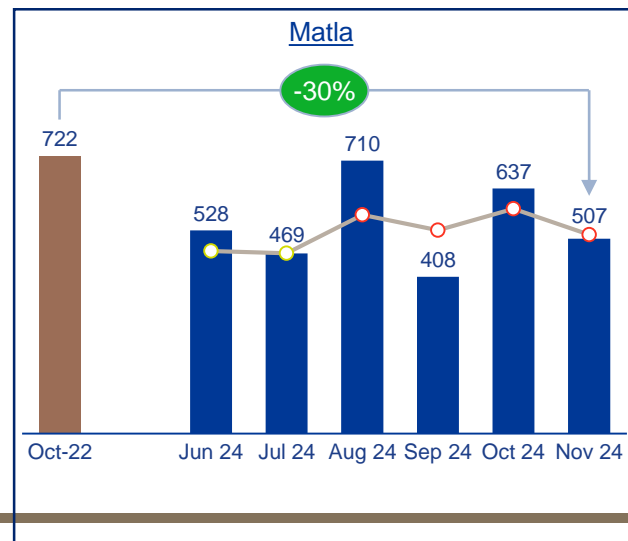
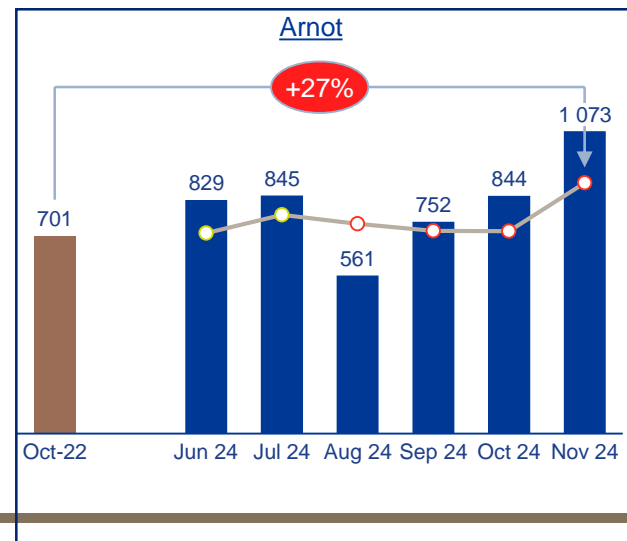
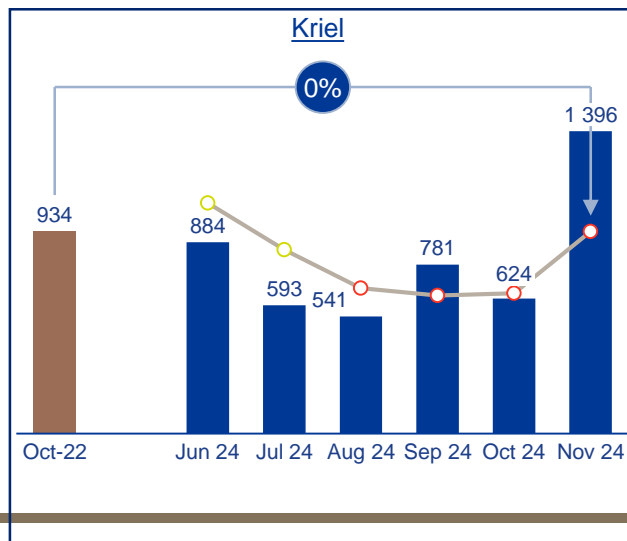
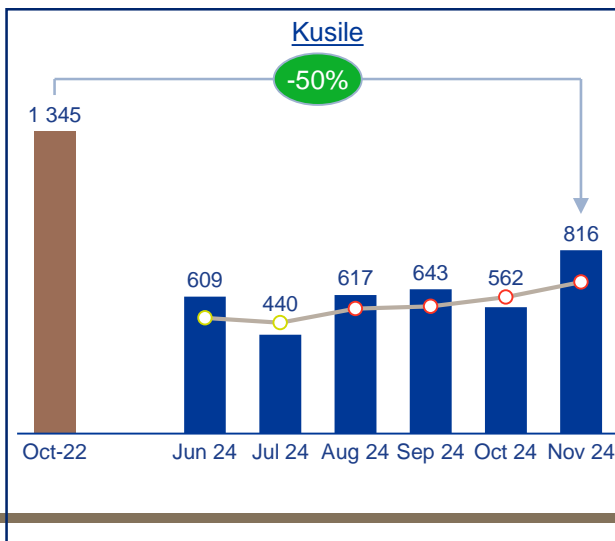
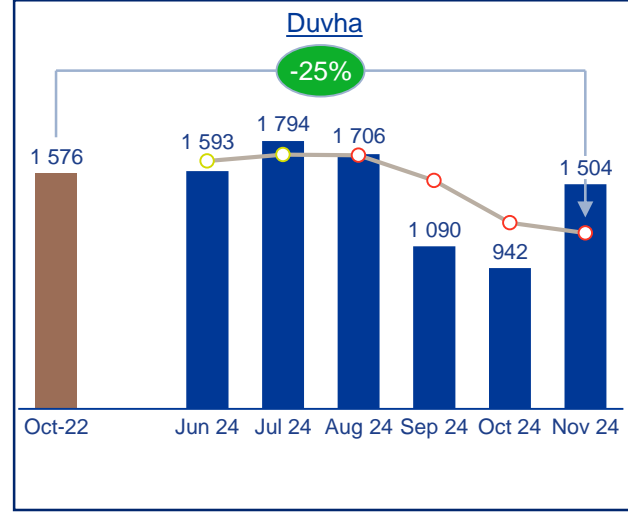
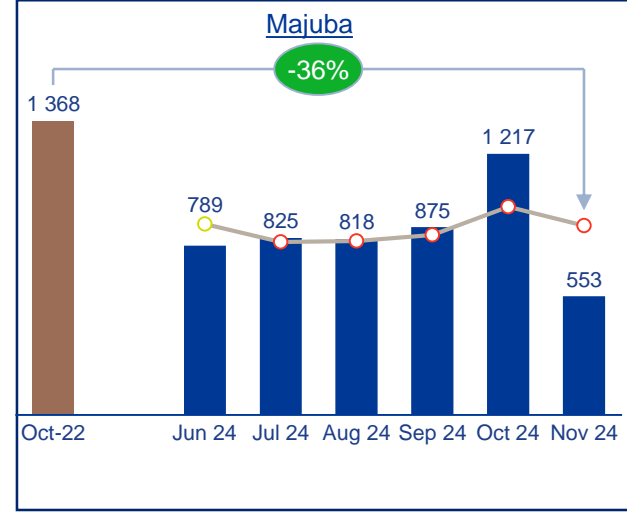
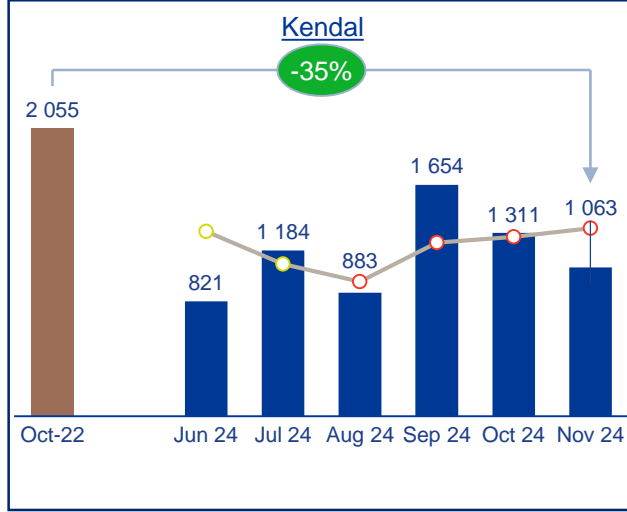
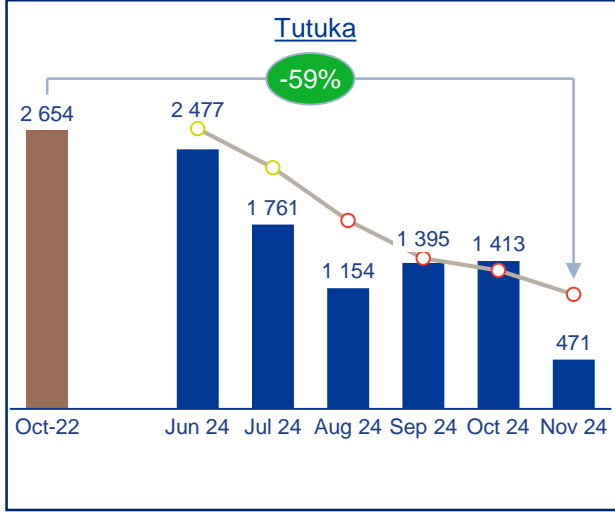


- **Downward trend** observed in unplanned losses, specifically driven by **priority 8 stations** (Tutuka, Majuba, Kusile, Kendal, Matla, Duvha, Arnot and Kriel)
- **Current unplanned losses of ~11.7GW for Oct 2024** are better than anticipated in the Summer outlook, as a result, no loadshedding is required
- 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)

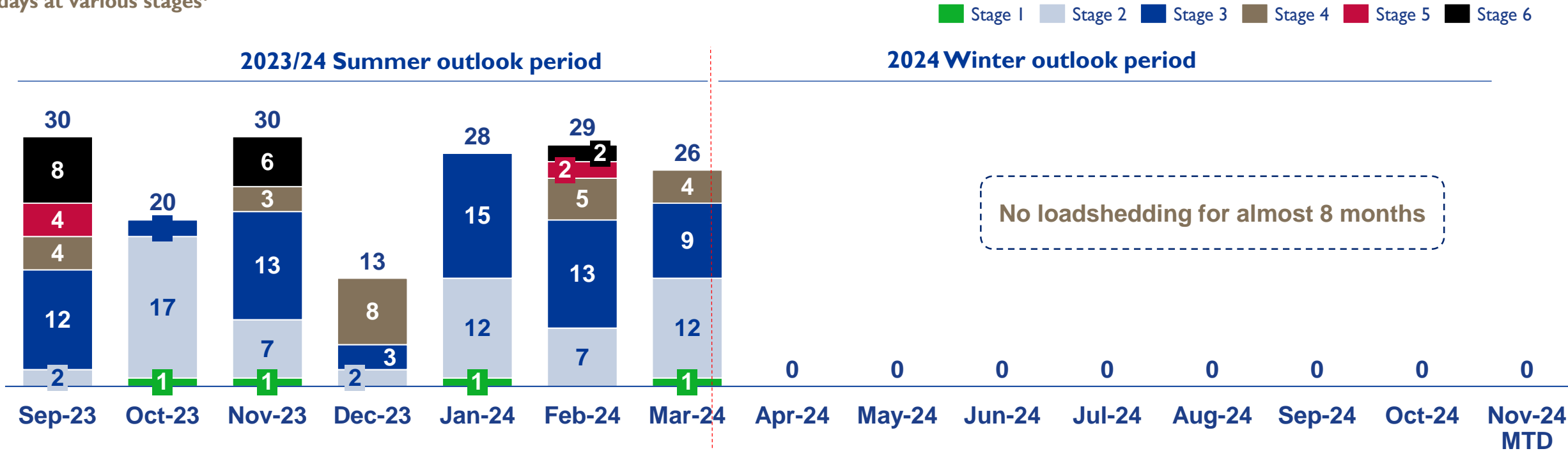


# Reflections: The continued improvement in Generation plant performance has resulted in 230+ days of continued no loadshedding



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

# of days at various stages<sup>1</sup>



- 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



# National Transmission Company South Africa

Date: 03 December 2024



## Key drivers on which the NTCSA's revenue application has been based

### Electricity Regulation Act (ERA)

- Objectives to facilitate investment in the electricity supply industry, promote the use of diverse energy sources and energy efficiency, and promote competitiveness and customer and end user choice.
- Enable an efficient licensee to recover full cost of its licensed activities, including a reasonable margin

### Transmission Development Plan

- Integrate new generation capacity
- Address system stability requirements
- Sustain and allow for future demand growth
- Ensure reliability of supply and network optimisation

### Licensing

- Application is in accordance with provisions of licenses to carry out the following functions:
- Transmission Network Service Provider, System Operator, Transmission System Planner, and Grid Code Secretariat function.
- Import and export energy
- Trading in electricity in South Africa

### Multi-Year Price Determination (MYPD) Methodology

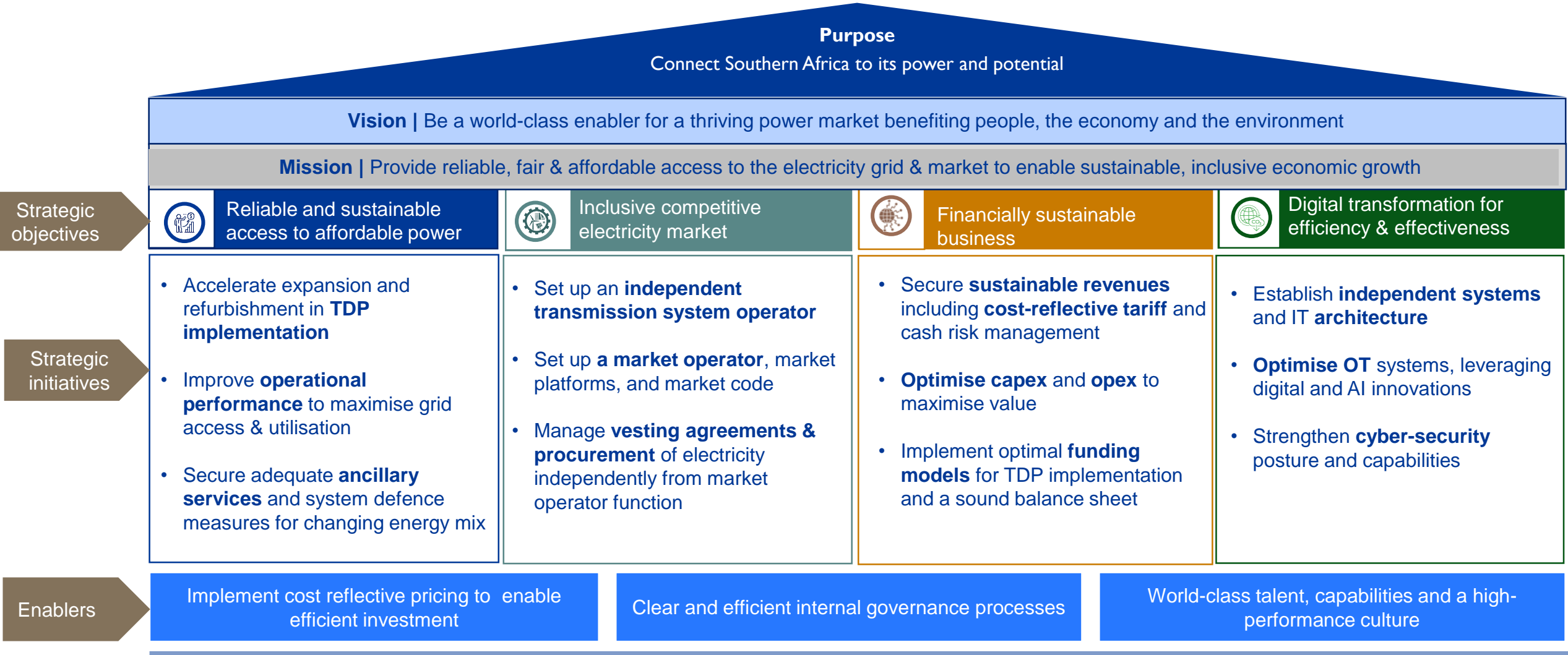
- Determines allowable revenue (AR) for efficient costs and fair return



### Government Support Framework Agreement (GSFA) and MFMA requirements

- Collective approval is required from the Department of Mineral Resources and Energy, Department of Public Enterprises and National Treasury for Section 34 (of the ERA) independent power purchases and associated costs.
- Consultation with SALGA and National Treasury

# The NTCSA strategy is aimed at positioning the company to make a significant and positive impact to improving security of supply and the just energy transition



**OUR VALUES:**



**Excellence**



**Integrity**



**Reliability**



**Zero Harm**



**Sinobuntu**

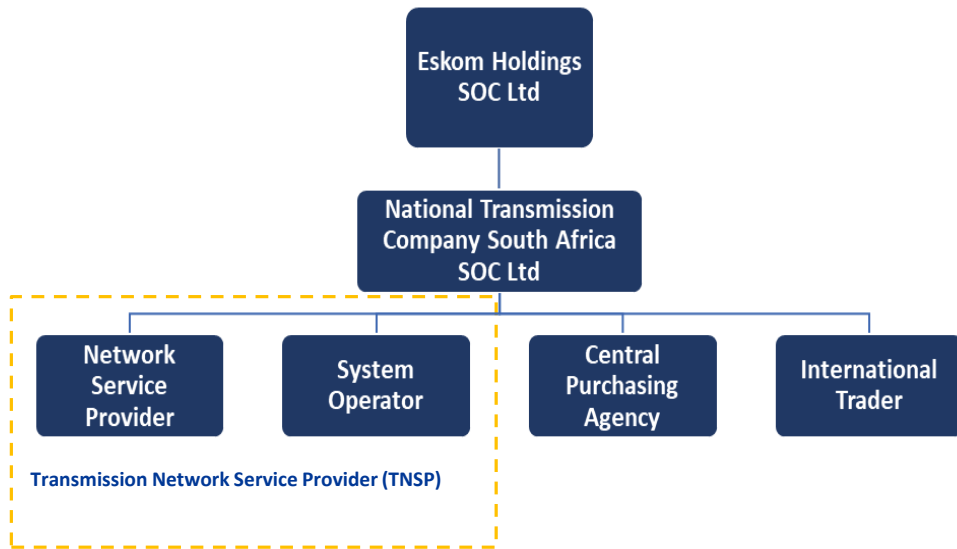


**Collaboration**

# NERSA has licensed NTCSA to (1) operate Tx Facilities, (2) Import/ Export electricity and (3) Trade electricity in South Africa

NTCSA has been awarded three licences and is entitled to the revenue associated with each licence.

- Transmission Facilities (**Transmission Network Service Provider**)
- Import and Export (**International Trader**)
- Trading (**Central Purchasing Agency**)



<p><b>TNSP</b></p>	<ul style="list-style-type: none"> <li>• The Network Service Provider – build, own, operate and maintain the network assets.</li> <li>• The System Operator – responsible for real-time supply and demand balance</li> <li>• Grid Code Secretariat - administering and supporting NERSA with development and application of the Grid Code</li> </ul>
<p><b>International Trader</b></p>	<ul style="list-style-type: none"> <li>• Import/Export cross border energy purchases and sales with countries that are interconnected within the Southern African Power Pool</li> </ul>
<p><b>Central Purchasing Agency</b></p>	<ul style="list-style-type: none"> <li>• Purchases electricity from Eskom Generation, the IPPs as well as imports, and sells to Eskom Distribution.</li> <li>• Counterparty to S34 REIPPs</li> </ul>

# Transmission Development Plan

*Connecting 56GW to the national grid by 2034*





## The Transmission Development Plan has four main objectives



Determine **new network infrastructure requirements** to **integrate new generation capacity** and **address system stability requirements**



Determine **new network infrastructure requirements** to sustain and allow for future demand growth



**Consider asset replacement requirements** to ensure **reliability of supply** and **network optimisation**



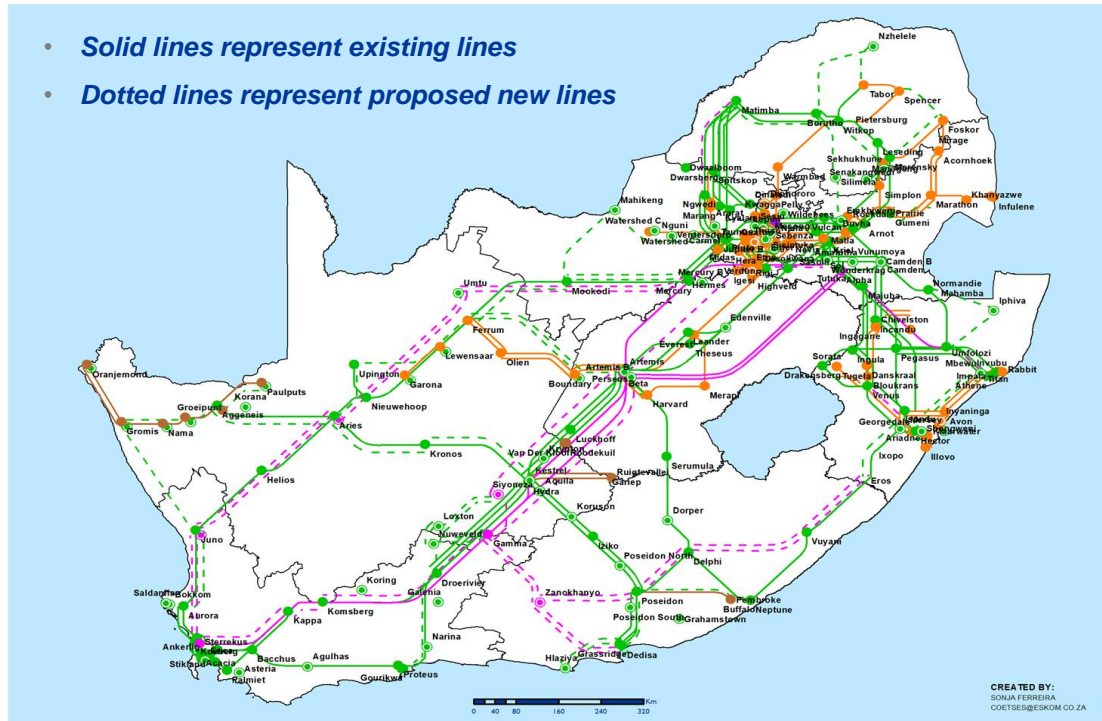
Attain **Grid Code compliance** by resolving both substation and line violations (N-1)



## Power Lines (km)

Transmission Assets Nationally	Total New Assets: 2025 - 2029	Total New Assets: 2030 - 2034	Total New Assets: 2025 - 2034
<b>Power lines (km)</b>			
765 kV	767	6190	6957
400 kV	4251	3226	7477
275 kV	26	34	60
<b>Total length (km)</b>	<b>5044</b>	<b>9450</b>	<b>14494</b>

- Solid lines represent existing lines
- Dotted lines represent proposed new lines



## Transformers

Transmission Assets Nationally	Total New Assets: 2025 - 2029	Total New Assets: 2030 - 2034	Total New Assets: 2025 - 2034
<b>Transformers</b>			
<b>Number of Units</b>	<b>87</b>	<b>123</b>	<b>210</b>
<b>Capacity (MVA)</b>	<b>41325</b>	<b>91325</b>	<b>132650</b>



## Reactors

Transmission Assets Nationally	Total New Assets: 2025 - 2029	Total New Assets: 2030 - 2034	Total New Assets: 2025 - 2034
<b>Reactors</b>			
<b>Number of Units</b>	<b>14</b>	<b>45</b>	<b>59</b>
<b>Capacity (MVar)</b>	<b>3260</b>	<b>13000</b>	<b>16260</b>



## Synchronous Condensers

20 Synchronous Condensers to be installed at 7 substations

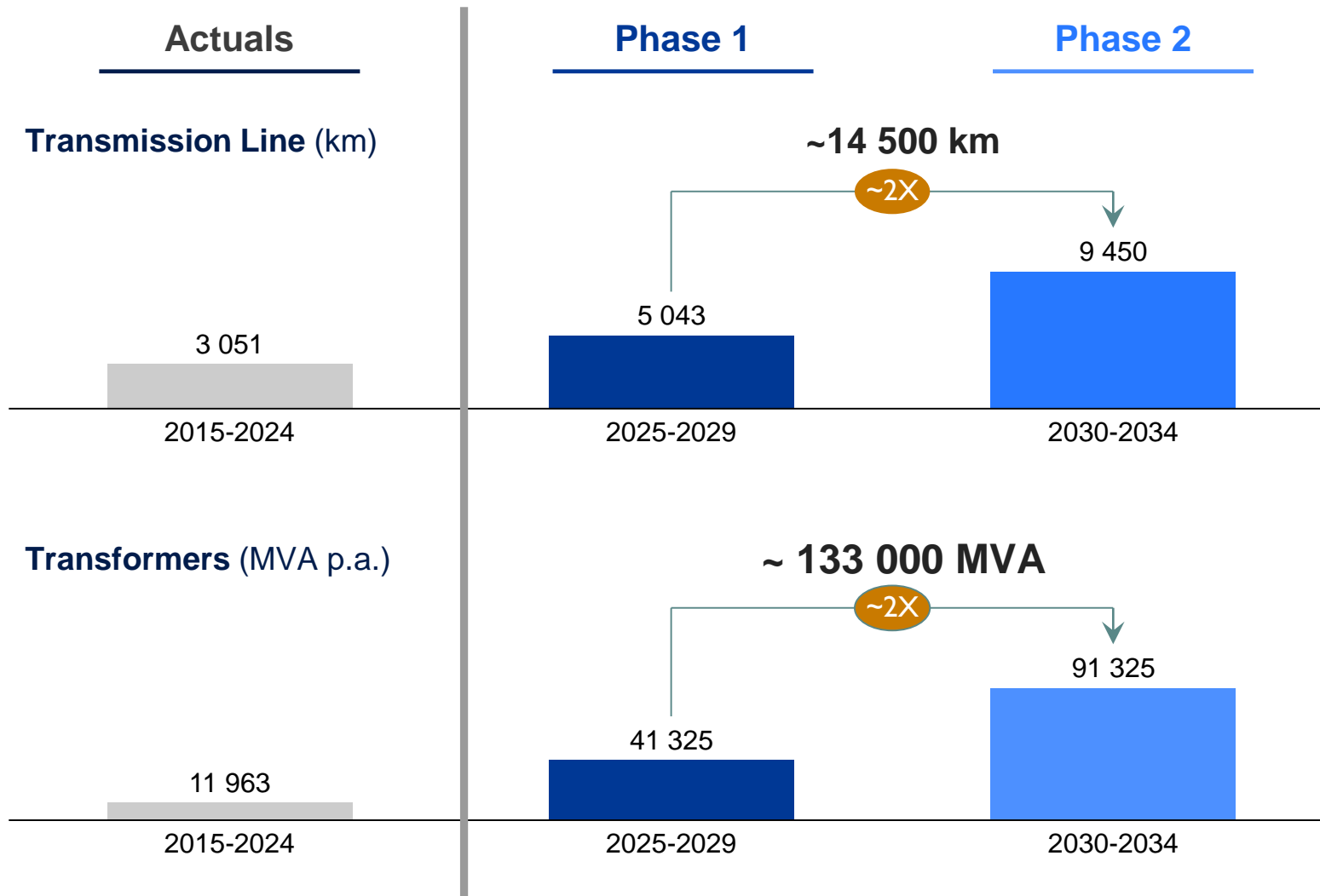


## Capacitors

Transmission Assets Nationally	Total New Assets: 2025 - 2029	Total New Assets: 2030 - 2034	Total New Assets: 2025 - 2034
<b>Capacitors</b>			
<b>Number of Units</b>	<b>15</b>	<b>25</b>	<b>40</b>
<b>Capacity (MVar)</b>	<b>1032</b>	<b>1660</b>	<b>2692</b>







### Transmission Lines

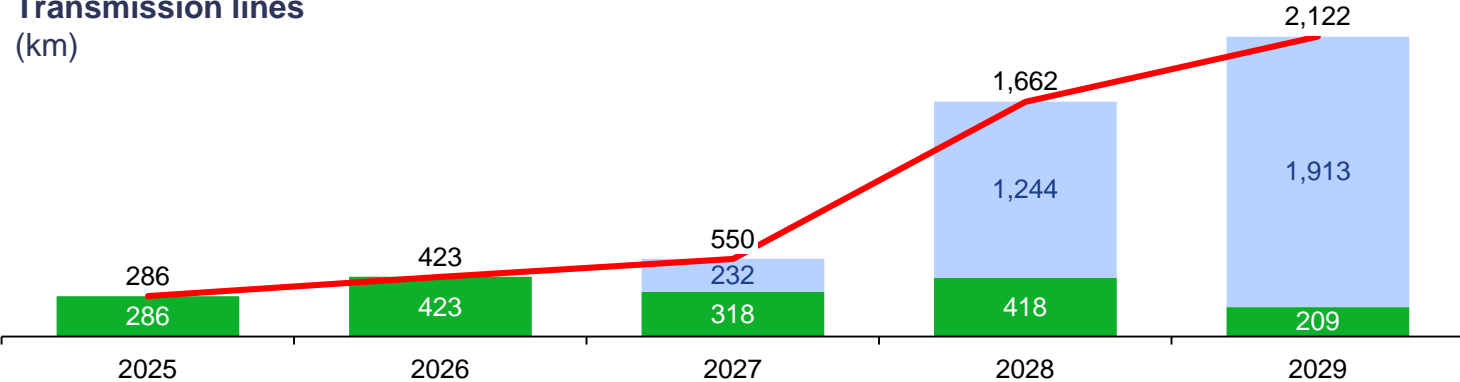
- ~14 500 km of lines to be installed over 2025 to 2034
- ~5X greater than the actual installation over 2015-2024
- Phase 2 is ~ 2X larger than Phase 1

### Transformers

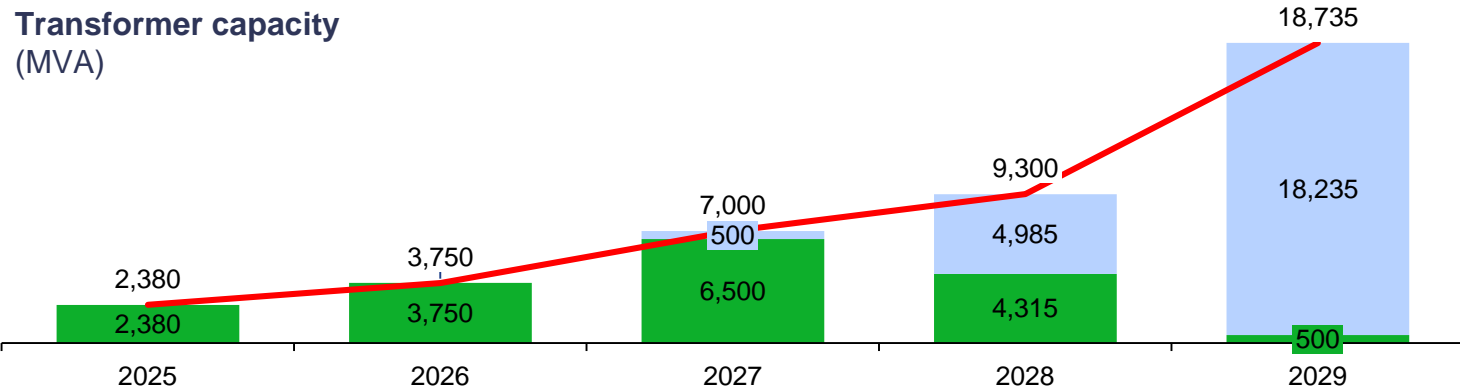
- ~133 000 MVA required by 2034
- ~10 X greater than the actual installation over 2015-2024
- Phase 2 is ~ 2X larger than Phase 1

Over the next 5 years the TDP projects will enable ~30 GW of generation capacity through construction of ~5,000 km of lines and 41,000 MVA of transformer capacity

**Transmission lines**  
(km)



**Transformer capacity**  
(MVA)



Under Development Ready for Execution Target

**Tx lines**

**Ready for Execution**

- 15 projects (~ 1 700 km) ready for or already under execution

**In development**

- 29 projects (~3 300 km) under various stages of development

**Transformer Capacity**

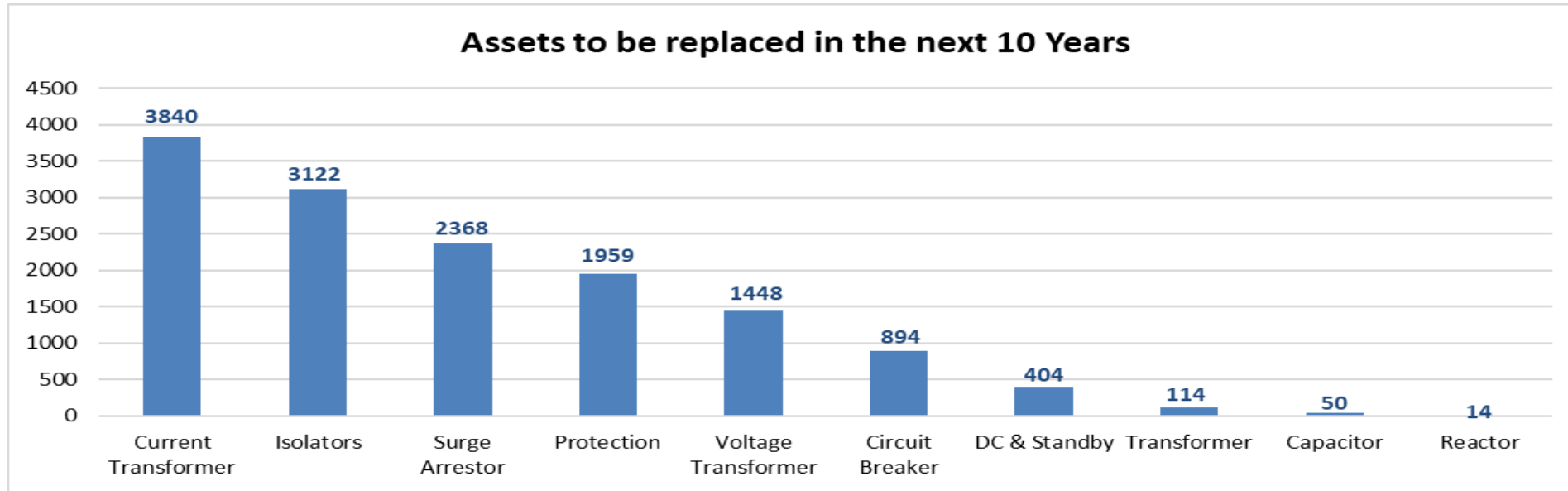
**Ready for Execution**

- 28 projects (~17 500 MVA) ready for or already under execution

**In development**

- 36 projects (~24 000 MVA) under development
- Transformer projects have a shorter development cycle compared to Transmission lines

**Project adds connect new generation and demand and ensure reliability**



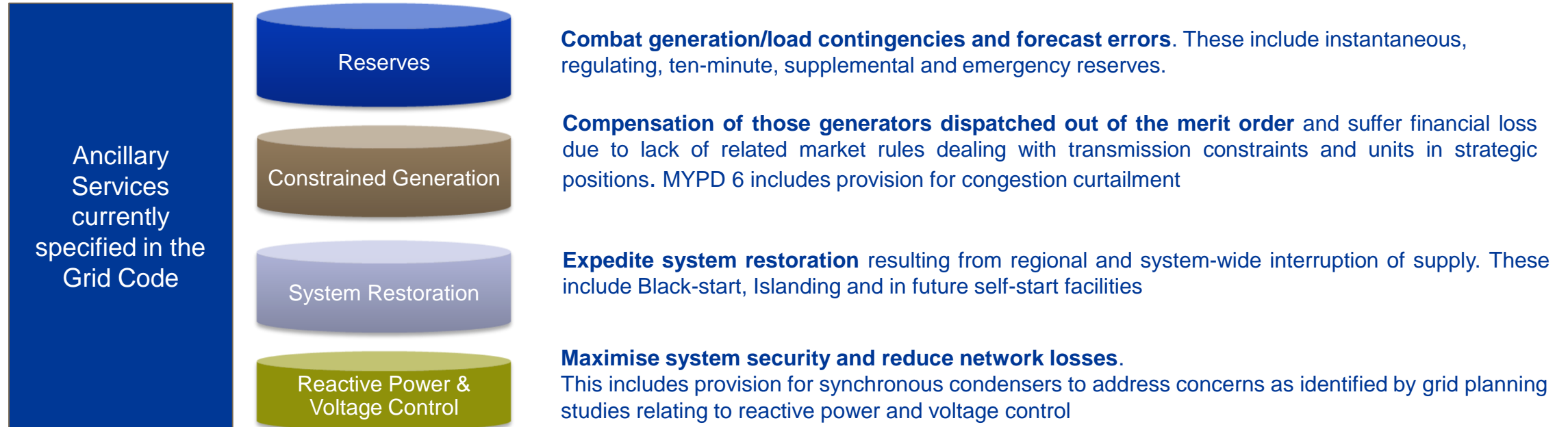
- Refurbishment is critical to **network sustainability** and deals with the systematic **renewal** of the network assets, based on plant **performance** and equipment **condition**.
- To sustain desired performance levels in existing infrastructure, NTCSA **must replace unreliable assets** while considering network constraints.

# Ancillary Services



# Ancillary Services – A license and Grid Code Requirement

Ancillary Services are set of activities undertaken by generators, consumers and network service providers, coordinated by the System Operator to maintain the stability and reliability of the electrical power system as defined in the **South African Grid Code**



- Additional services are required to ensure the safe, secure and reliable operation of the power system.
- Providers of AS programmes include Eskom Generation and IPPs (within and outside the Sec 34 DMRE programme)
- Power Alert has been included as part of AS

- As the energy mix in South Africa transitions towards a greater reliance on **variable renewable energy (VRE)**, the **intermittency** and **unpredictability** of these resources necessitate new ancillary services.
- The System Operator must ensure that there are adequate, traditional and new ancillary services procured to support the energy transition while ensuring **resilience** and **reliability** of the power system



#### Frequency control.

- Grid frequency must be controlled to prevent system instability.
- Battery storage and demand-side management will be key in correcting imbalances brought by RE variability



#### Voltage control

- Reactive power compensation from advanced inverters or synchronous condensers is essential to maintain voltage stability.



#### Provision for congestion curtailment

- Curtailment of energy resources to assist with network congestion



#### System Restoration Capability

- New system restoration resources strategically located across the network are vital for restarting a decentralised system



#### Reserves

- Backup reserves are key to address drops in generation as VRE sources are connected
- Gas turbines or BESS can fill this gap effectively.

# MYPD 6 Application





# The application process started while Transmission Division was legally separating from Eskom during a dynamic and complex environment. Collaboration is key to success



**Aug 23 (1<sup>st</sup> Approval), Mar 24 (Final)**  
Approval of IPP energy in terms of Government Support Framework Agreement (GSFA)

**Sep 23 – Mar 24**  
Finalisation of assumptions for MYPD 6 revenue application

**Feb - Mar 24**  
Appointment of NTCSA Board and legal separation

**30 Apr 24**  
Eskom Board Approves draft revenue application for consultation in terms of MFMA

**Jun - Jul 24**  
SALGA and National Treasury consultation process (MFMA) stakeholders' comments

**1 July 24**  
**Operationalization of NTCSA**

**16 Aug 24**  
Final submission to NERSA

**Sep 24**  
NTCSA strategy review

### Other notable events

- Aug 2024 – ERAA assented into Law and awaiting implementation
- Oct 2024 – TDP 2024 published,
- Nov 2024 – NERSA public hearings commenced

## Operation and Maintenance



The TNSP function within the NTCSA shall own, operate and maintain the Licensee's assets constituting its transmission network in accordance with the Grid Code

## Reliability



Ensure system reliability, stability, safety and security;  
Acquire sufficient Ancillary Services;

## TDP



The Licensee shall compile and publish a national Indicative transmission development plan for the electricity supply industry in accordance with the Grid Code

## Economic Efficiency



The Licensee shall perform the licensed activity in conformity with the economic efficiency principles and the objective to achieve the lowest costs with the defined quality and performance standards

- NERSA conducts annual **audits** on NTCSA's **substation assets** to assess the condition of substation plant assets and to confirm that maintenance has been conducted as required.
- In general, the reports have shown that even though NTCSA is operating an **ageing asset base**, the maintenance is being conducted as required to ensure the reliability of the plant.
- NERSA also conducts **audits** in terms of the Grid Code on our Transmission Development Plan and that **investments** conform with the requirements of the Code. These audits have shown a satisfactory compliance with the Grid Code requirements.

# Submitted Revenue Application for NTCSA

- During this transition period (legal separation of Transmission), Eskom submitted a ring-fenced NTCSA revenue application for FY26 to FY28 based on the MYPD methodology.
- It is critical that revenue determination is set in a transparent, fair, and cost-reflective manner to enable NTCSA to recover its efficient costs and earn a reasonable return.
- **NTCSA revenue application is R101bn, R115bn and R155bn for the FY2026, FY2027 and FY2028, respectively includes.**
  - The phasing-in of Return on Asset of 4%, 5% and 6% for respective 3 years of application.
  - Operating & Maintenance costs
  - Ancillary Services increased to allow additional services to be purchased from Independent Power Producers (IPPs)
  - In addition, the revenue application includes the IPP costs and International Purchases
  - Capital investments of R96bn are assumed for the MYPD6 period to enable new generation connections and meet sustainability and compliance requirements

## Summary of the Allowable Revenue Requirements

Cost Item (Rm)	AR	Formula	FY2026 Application	FY2027 Application	FY2028 Application	FY2029 Post Application	FY2030 Post Application
Ave Regulatory Asset Base	RAB		116 667	146 325	176 193	211 428	248 072
Rate of Return	ROA	X	4.00%	5.00%	6.00%	7.47%	9.69%
ROA (Rate x Ave RAB)			4 667	7 316	10 572	15 802	24 048
IPPs	PE	+	66 633	77 640	109 820	135 510	140 943
International Purchases	PE	+	10 249	9 724	13 642	11 838	12 371
Ancillary services	PE	+	2 946	3 544	4 653	4 197	5 410
Employee Benefits	E	+	4 423	4 634	4 822	5 023	5 253
Maintenance	E	+	1 675	1 857	1 968	2 039	2 114
Other operating costs	E	+	1 670	1 579	1 703	1 808	1 921
Depreciation	D	+	6 461	6 949	7 816	9 096	10 447
AR before RCAs (Rm)			98 724	113 242	154 994	185 314	202 507
Add: Approved RCA/court order for liquidation	RCA	+	1 802	1 636	0	0	0
<b>Total Allowable Revenue</b>			<b>100 526</b>	<b>114 878</b>	<b>154 994</b>	<b>185 314</b>	<b>202 507</b>

# NTCSA requires cost reflective revenues to fund the significant capital build and ensure reliable operation of the integrated power system

- As a newly established company, NTCSA is **balancing a complex, dynamic and challenging environment**, delivering on the TDP objectives, meeting the interests of the public, whilst remaining a financially sustainable entity.
- The new Electricity Regulation Amendment Act 2024, once implemented provides for additional responsibilities for NTCSA
- In order to meet these objectives, NTCSA requires an appropriate revenues which enables **full recovery of efficient costs and a reasonable return**.
- A pathway to **full recovery of efficient costs and a reasonable return** is essential to achieve the following:
  - NTCSA's ability to fund an **aggressive build programme, connecting 56GW of new generation capacity by 2034**;
  - NTCSA's ability to become increasingly **financially sustainable**, with less reliance on support from its parent company or fiscus;
  - An alignment with the **requirements ERA, EPP, and MYPD Methodology**

- NTCSA was operationalised on 1 July 2024, and has developed a strategy aimed at positioning the company to make a significant and **positive impact** to improving security of supply, advancing the just energy transition and reliability of the power system
- Over the next 5 years the TDP projects will enable ~30 GW of **generation capacity** through construction of ~5,000 km of lines and 41,000 MVA of transformer capacity
- Maintaining **system security** and **stability**, due to large scale renewable energy integration, will increasingly become a challenge into the future and is being addressed by the acquisition of **ancillary services** and introduction of **synchronous condensers** at strategic locations on the transmission grid
- The targets flowing from the TDP requires a **significant step change** in both capital investment and execution as well as additional resources including resources to **integrate new generation sources**, ensure **system reliability** and to meet **future demand requirements**.
- This application motivates that the key enabler to ensure delivery of the build programme while remaining financially sustainable is NTCSA's ability to achieve a path that enables full recovery of its **efficient costs** of operation and earn **a reasonable return** with **regulatory certainty**.
- The successful implementation of the TDP 2024 and related essential activities is critical to the security of energy supply, advancing the just energy transition and economic growth.



Thank you