

Eskom Presentation

Briefing Meeting with the Portfolio Committee on Public Enterprises

17 February 2021



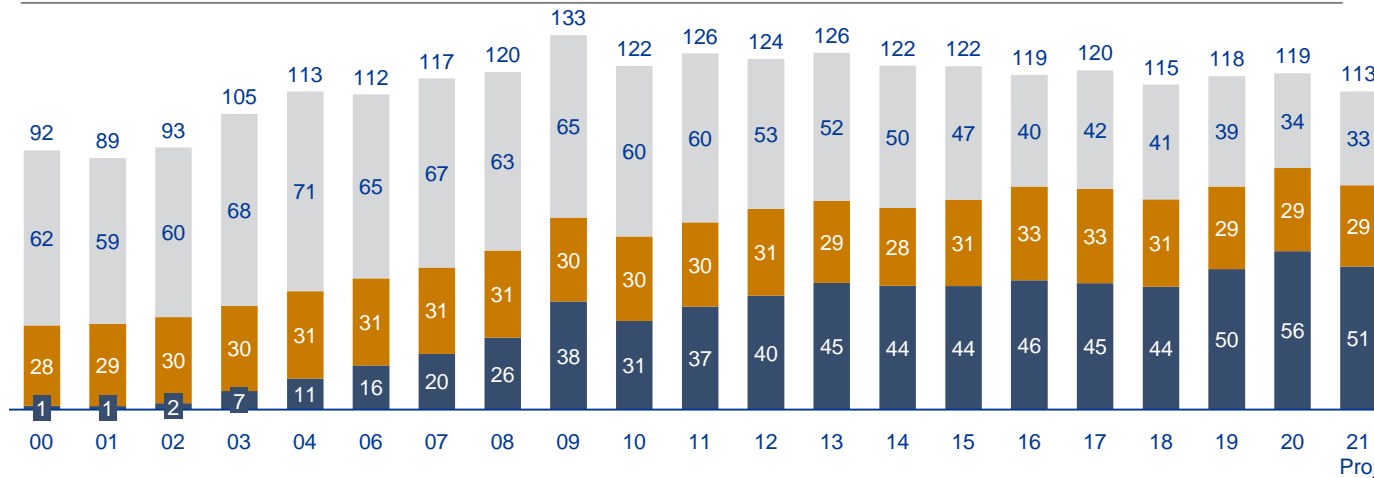
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- Eskom Coal Contracts
- Electricity Tariffs
- Medupi and Kusile Project Costs
- Wilge Residential Development Project

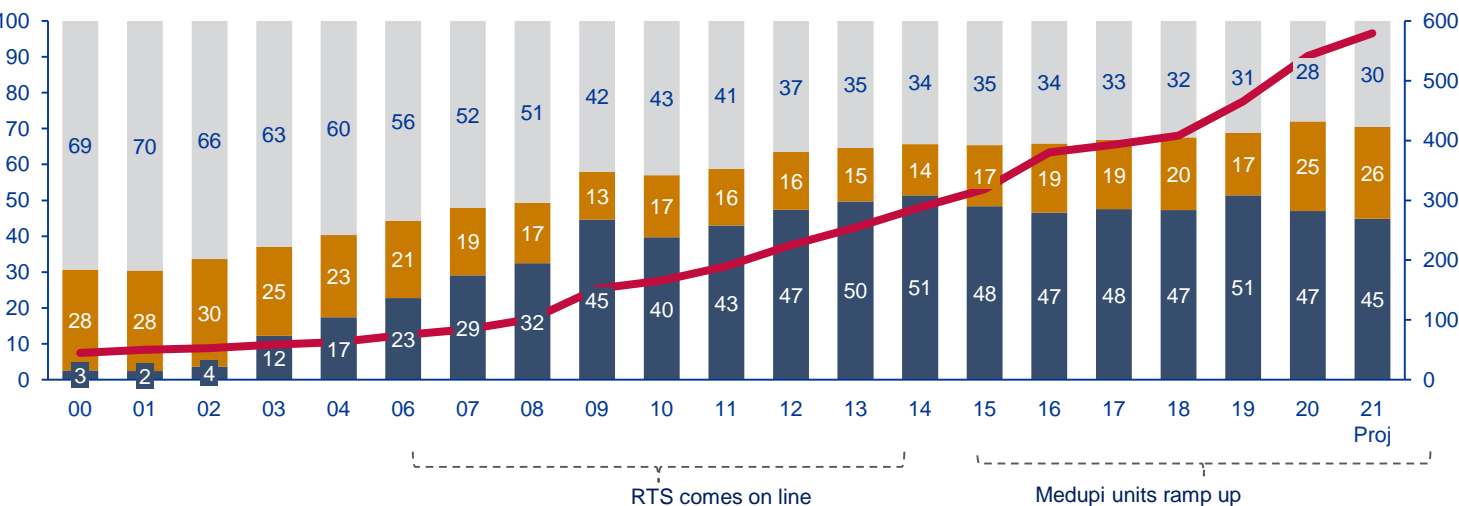
For a very similar/lower energy output historically, Eskom is producing a similar output with a much more expensive coal supply mix

Volume contribution (Mt)

Cost Plus Fixed Price Short/Medium Avg coal R/ton



Cost contribution (%)



- The use of **expensive power stations** (with no tied colliery) and a steady decrease in cost plus mine production due to a lack of investment has led to an increase in procurement on medium term contracts **with additional transport cost**. On average 30% of coal costs relate to the transporting of coal
- FY2019 – 42% **Medium term volume (~50Mt) contributes 51%** of the coal costs. Thus Medium term contracts remains the **most expensive coal contracts**
- The reduced production from the cost plus mines (volumes) and the associated inflationary fixed cost escalations at these cost plus mines results in a higher unit cost of coal. (i.e. the fixed costs remains the same with reduced volumes)

Eskom utilises 2 coal contract types, with an increase in shorter-term fixed price contracts in the last 10 years

	Cost Plus Contracts	Fixed-price Long Term Contracts	Fixed-price Short-Medium Term Contracts
Description	<ul style="list-style-type: none"> In place for mines that are situated close to Eskom's power stations with all coal production dedicated to Eskom The coal price is based on mining costs plus an agreed profit consisting of management fees and a return on capital originally invested 	<ul style="list-style-type: none"> These contracts deliver coal to Eskom at a fixed price that is annually escalated according to an agreed composite escalation index Supply to Eskom, export market and other local markets 	<ul style="list-style-type: none"> Utilised to fill the remaining coal requirement that cannot be supplied by the cost-plus and fixed price contracts The short-medium term mines tend to have inherently higher cost structures Single source powerstations have outperformed powerstations with short term suppliers by 16% higher EAF since 2008, suggesting that multiple sources may lead to more variability and reduced reliability
Advantages	<ul style="list-style-type: none"> Historically lowest R/t cost and hedging against price fluctuations Transparency into mine operations Easiest long term negotiations, simplified financing 	<ul style="list-style-type: none"> Predictable prices Less price and quality variation risk exposure than Cost Plus 	<ul style="list-style-type: none"> Fast and easy to negotiate Predictable prices Flexibility through short contract durations and road and rail deliveries
Impact	<ul style="list-style-type: none"> Eskom carries almost all risk Mine has limited incentive to optimise operations Eskom provides initial and sustaining capital expenditure 	<ul style="list-style-type: none"> Prices can be high if Eskom has limited alternative options Dependent on global market demand, price and export volumes 	<ul style="list-style-type: none"> Substantial price premium for mining marginal deposits and for the miner's higher risk exposure Considerable contract management resources required

The Cost Plus mines are owned by 3 major mining companies



SN



Mine	Type of Operation	Power Station Supplied	Contract Duration	Start Date	End Date	Contractual Volume (Mt)	Current Volume (Mt)*
New Vaal	Opencast	Lethabo	40	1989/06/01	2029/06/30	17,8	14,8
New Denmark	Underground	Tutuka	40	1989/09/01	2029/08/31	5,1	2,6
Kriel Mine	Combined	Kriel	41.5	1979/12/01	2021/07/31	8,5	4,2
Khutala Mine	Underground	Kendal	40	1993/12/01	2033/12/31	13,30	5,8
Matla Mine	Underground	Matla	40	1983/07/01	2023/07/31	10,1	5,9



* Based on FY21 YE Projection at 31 December 2020

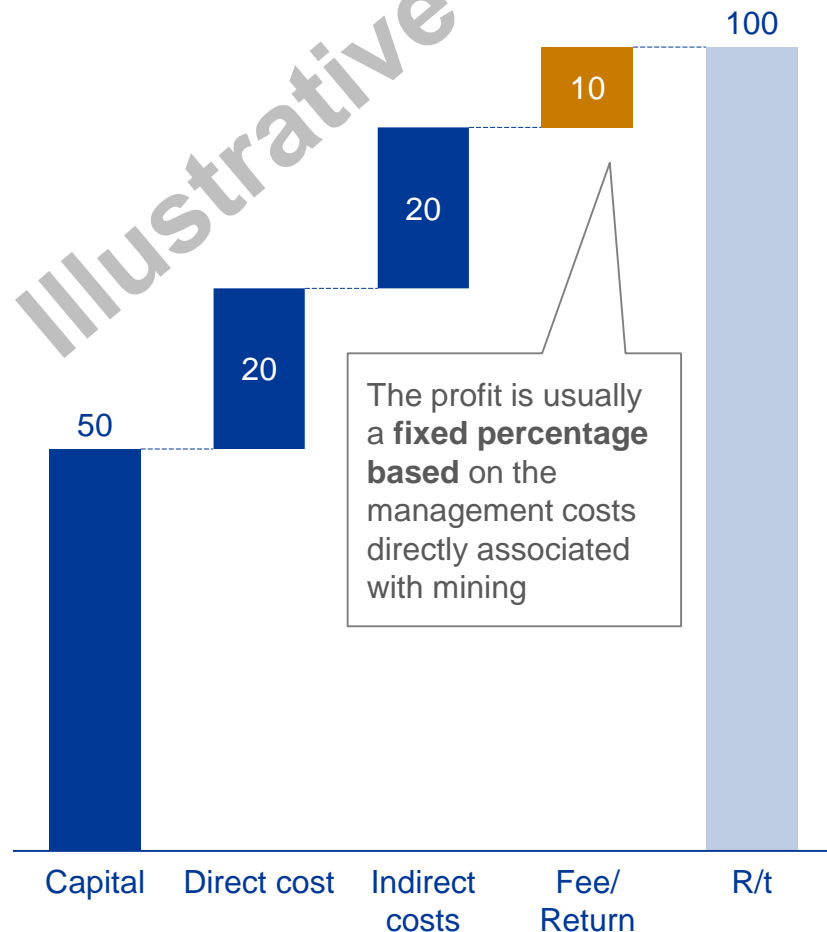
Cost plus mines have the distinct advantage of insulating Eskom from market price fluctuations

Generic breakdown of an Eskom cost plus contract

Average contribution percentage of unit cost (R/t)

■ Unit cost reflected in income statement

■ Cost Eskom carries

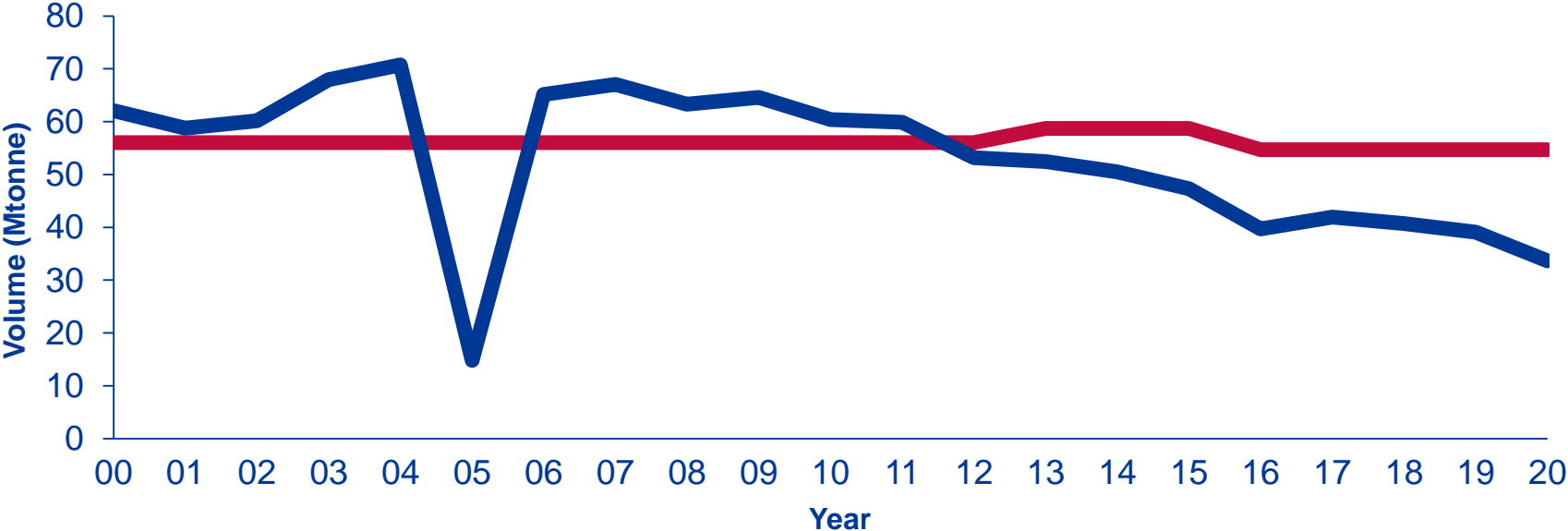


Insights

- In securing a Cost plus contract, Eskom is assured that all the coal in the reserve is dedicated to Eskom and the mining house cannot sell this coal to any one else, or use the mining equipment for any other mining operations
- A cost-plus contract refers to a contract when the contractor gets paid for the actual **mining related expenses (“Cost”)** as agreed
- The term “**plus**” in “Cost-plus” refers to the profit allowed to be earned by the contractor
- The profit is in the form of an annuity calculated on the initial investment made into the mine. This annuity is further split into a monthly fixed and variable component
 - The fixed component is a guaranteed component
 - The variable component is linked to production
- A cost-plus contract provides a **win situation for the contractor** because all risks are basically covered by Eskom, and all expenses are likely to be paid
- Historically **lowest R/t cost** and hedging against price fluctuations
- Provides Eskom **transparency into mine** operations and easier long term negotiations, simplified financing
- A disadvantage for Eskom is the mine **has no incentive to optimize** operational costs and efficiencies

Historically the Cost Plus mines produced above the contracted quantities compared to the current production quantities

- Contractual Cost Plus Mines
- Actual Cost Plus Mines



Under investment is the biggest contributor to the decline in production and this together with the corresponding replacement coal purchases, coal unit costs is negatively impacted

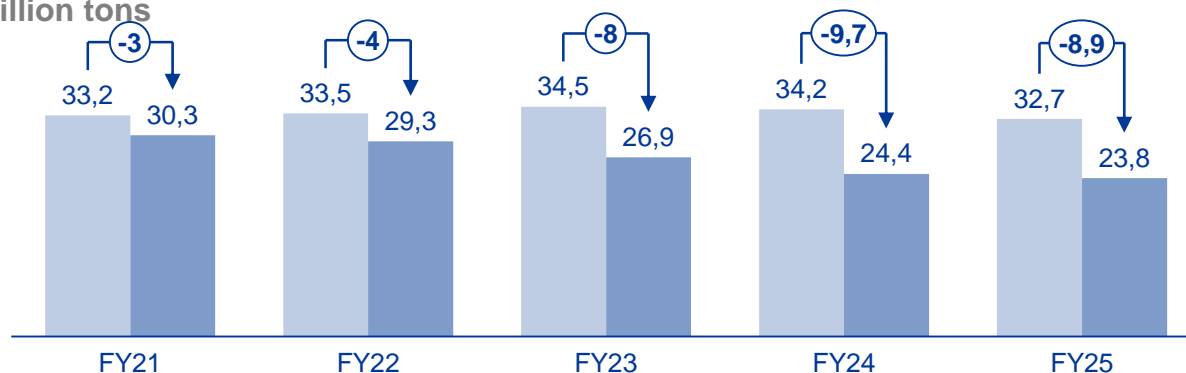
N.B. - December 05 - 3 month period due to change in Eskom Financial Year.
N.B. - The contractual quantity for New Denmark Colliery was assumed to be 5.1 Mtons as opposed to 10 Mtons per the CSA.

Investment of ~R15bn capital in the cost plus mines until FY25, could avoid spending an additional ~R35bn (Opex) in replacement coal

Volume from Cost Plus Mines

■ With Capex ■ Without Capex

Million tons

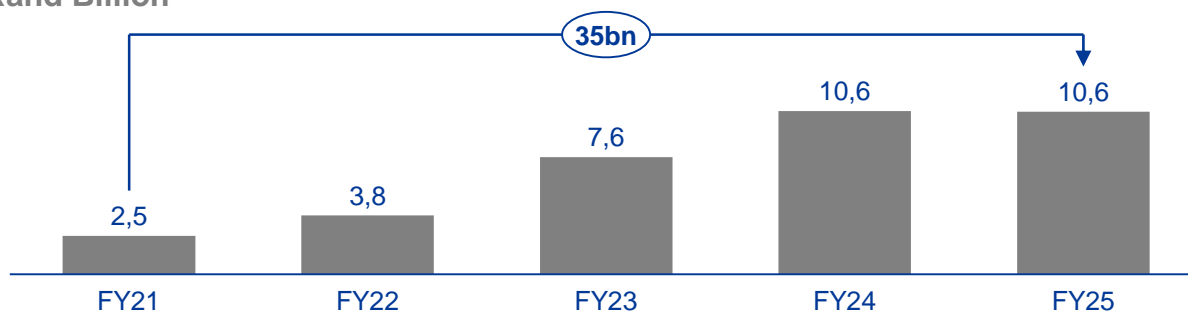


Insights

The **impact of no capex investment** into the cost plus mines will **result** in further coal supply **reduction** and **increased spend** on cost from replacement coal

Additional impact on Coal Purchase Costs as a result of NO capex/cost plus volumes

Rand Billion



High level purchasecost impact:	FY21	FY22	FY23	FY24	FY25
Avg assumed uncontracted price	844	919	1002	1092	1191

Source: High level analysis for “No Capex scenario” used. Detailed study would be needed to quantify benefits from capex spend. The above has been calculated in absence of signed-off Life of Mine Plans

Cost Plus Planned tonnage based on Draft Corporate plan 21 Oct 2020 ; Some benefits from capital expenditure will fall out of the current planning window.

Capex FC (15bn) will also need to be revised based on latest plan

Cost impact used uncontracted coal cost assumption as per above (Based on average of offers received in July 2018):

Due to the low stock days experienced in FY19, a number of ST/MT coal contracts were signed under emergency procurement

Coal Shortfall

Cost plus mines undersupply due to lack of capital investment for expansion required replacement coal from road and rail delivered Medium Term (MT) suppliers

Negotiations between Eskom and Glencore started in 2017 but due to price Eskom was not prepared to conclude these contracts

Eskom started FY19 with 10Mt uncontracted coal to match the burn requirements and adequate coal stock holding

The unexpected loss 8.5Mt of contracted coal supply, when Tegeta went under business rescue accelerated the coal stock decline

Poor responses to urgent coal procurement did not achieve desired volumes of required coal

Eskom Board approved the Eskom Long Term Coal Strategy which is currently being implemented. The primary objectives of the strategy is to ensure security of coal supply with a predictable price path and to avoid this type of situation in the future

The coal stock levels deteriorated to a level where no further decline could be tolerated. 10 power stations dropped below 20 days of stock holding and 6 of these stations were below 10 days

Emergency procurement was undertaken with the support of the Eskom Executive Committee, Eskom Response Command Centre(ERCC) and National Treasury

- 28 coal contracts were concluded under the emergency procurement
- Most contracts concluded under the emergency procurement have a tenure less than 24 months
- PED approached the Exco to obtain permission to conclude contracts with Glencore at high prices

Coal stock days well above expected levels

Coal stock days recovery to above minimum levels

<FY18

Apr 2018

Oct 2018

Dec 2018

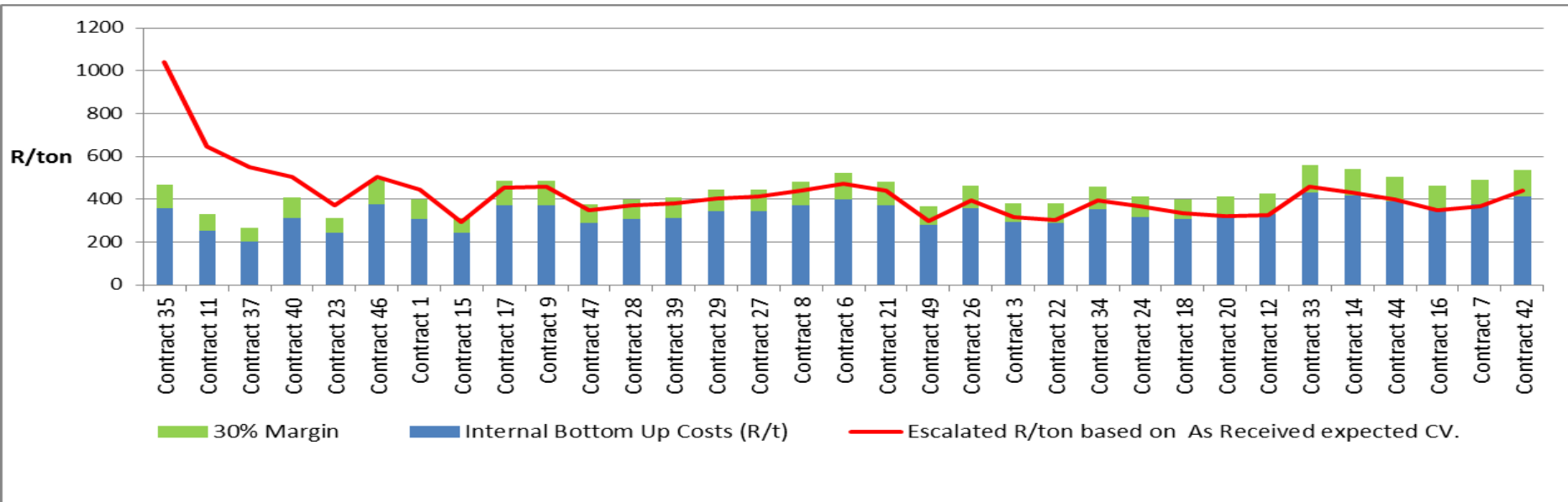
Mar 2019

Mar 2020

2021

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In Sept 2019 Eskom undertook an exercise to estimate the mining cost breakdown per Short/Medium Term (SMT) suppliers¹ compared to escalated contracted price*



- The exercise was based on information available to Eskom and the knowledge of internal coal mining subject matter experts.
- 30% was seen as a fair return for miners and only suppliers above this threshold were considered for intervention/re-negotiation
- Contracts with remaining tenure of more than a year were prioritised to maximise potential savings for Eskom
- Most of the coal contracts identified to be earning above market profit margins were signed during the emergency procurement in FY2019, when coal stock levels were very low. Most of these contracts have since expired
- 7 suppliers were identified and engagements were held with these suppliers (ie suppliers with high profit margins) to explore opportunities to reduce the contracted prices. While most suppliers were amenable to engage with Eskom, unfortunately, these engagements did not achieve the intended result of cash savings for Eskom.

¹ Of the 49 contracts analyzed as part of the bottom up cost analysis, 16 have since expired and are not shown in the graph. ² The graph does not show the current 5 Medium/Short Term contracts that were concluded after the bottom up cost analysis was conducted. * Escalated to Dec 2020



- **Eskom approached suppliers on individual contracts**; however, it soon became apparent that most of the suppliers were only **willing to engage on a portfolio basis**. This meant that the lower-priced contracts would be included for reopening of price discussions. **This resulted in higher overall cash costs to Eskom.**
- Suppliers saw this as **an opportunity to increase their overall supply to Eskom** by either offering additional volumes or new resources as a condition for price reductions. This approach **did not present cash savings for Eskom**, as the additional coal offered was not the cheapest option and, given the current low demand and high stock days, this was not a viable solution.
- One of Eskom's cash cost reduction levers is **the optimisation of the coal inventory through reducing coal deliveries** to minimum contractual levels for all contracts, without compromising stock levels. This operational requirement posed challenges to the renegotiation process, as some suppliers wanted the resolution of operational issues as a prerequisite for any engagements on cost reduction initiatives. Given the current high stock levels, an increase in monthly volumes back to nominal levels was not feasible.
- Eskom was **unsuccessful in achieving the desired outcomes of renegotiating the prices down**, and therefore, **the direct savings value** attached to the above high-priced contract renegotiation initiatives **is now zero**. The main reasons for the unsuccessful outcome related to **suppliers requesting increased prices on other contracts**, contract **volume increases**, and/or **increases in the delivery profile of coal**, all of which were assessed to be more expensive than other alternatives.
- **Eskom is implementing a long-term coal strategy**, which will ensure a **predictable coal price path and security of coal supply**. The strategy gives preference to dedicated long-term coal contracts, with coal delivered on conveyors.

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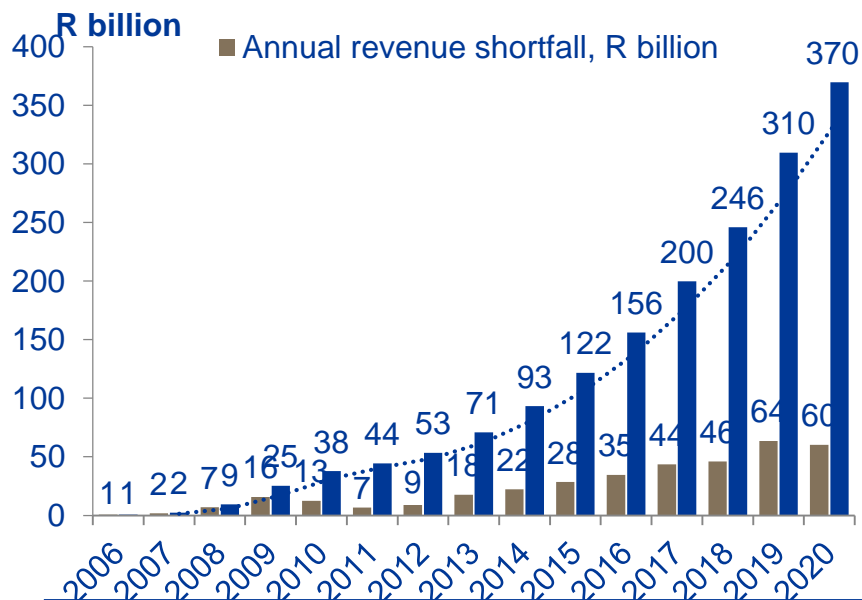
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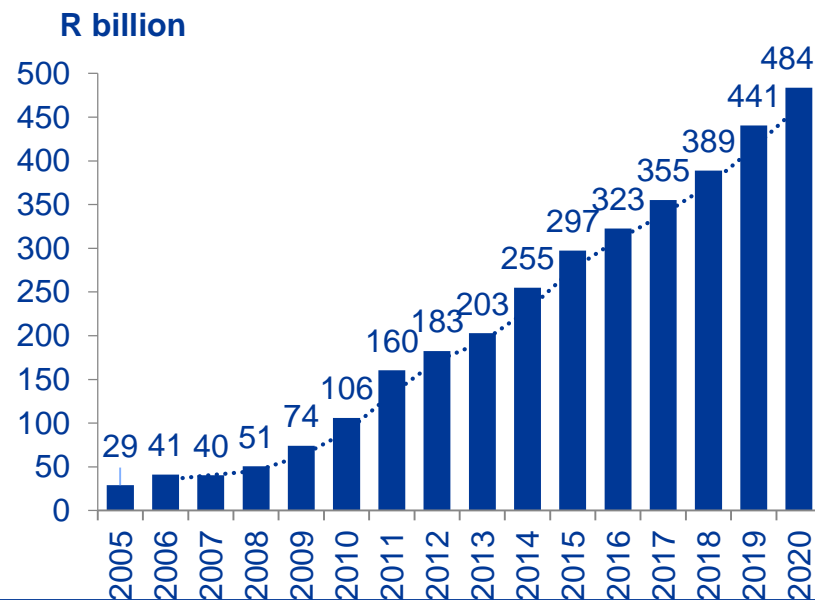
- Eskom has been more and more dependent on **government equity support** and further debt due to the shortfall in recovering its efficient costs and a fair return.
- NERSA and Eskom have been on a **journey towards achieving prices reflective of efficient costs** and a fair return for many years.
- This is in accordance with **the Electricity Regulation Act**.
- The **efficient costs do not go away**; if the consumer does not pay, then the taxpayer has to pay.
- This negatively affects other **government priorities**.
- The High Court confirmed that **NERSA had been deviating** from its methodology, resulting in incorrect decisions.
- This has resulted in a **further shortfalls being experienced by Eskom**.
- The **dependence on government equity has increased** – to address the gaps caused by inadequate price increases.
- Measures are in place **to protect vulnerable sectors**, especially:
 - poor residential customers (who have free basic electricity and subsidies); and
 - identified energy-intensive customers (the Department of Mineral Resources and Energy (DMRE) has provided for short- and long-term negotiated pricing agreements).
- **Further price increases** are required to limit the burden on the fiscus.

Eskom's balance sheet continues to threaten its sustainability and the sovereign

Cumulative revenue shortfall



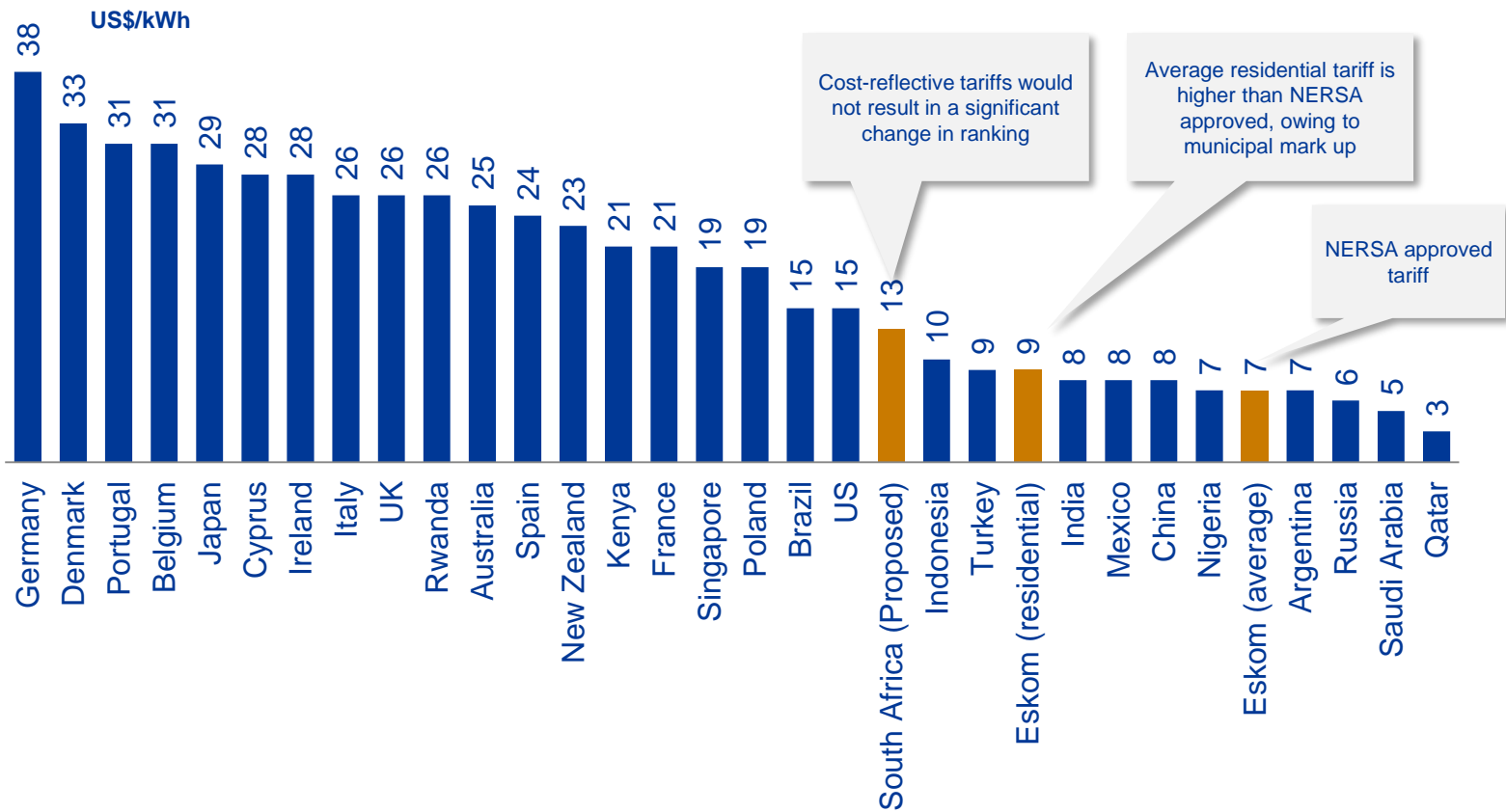
Growth in debt securities and borrowings since FY2006



- Adverse NERSA decisions have resulted in a **R370bn cumulative revenue shortfall**
- Borrowing at the time assumed cost-reflective tariffs in future – including a reasonable and market-related return on assets
- Mismatch in debt tenor for the new build programme is relatively short (10 years) - while the recovery of the asset is over 50 years
- High cost to service debt coupled with sub-cost reflective tariffs resulted in a need to borrow to service debt

Even after adjustment, SA tariffs will remain competitive globally to support investment and economic growth

Global electricity tariff benchmark

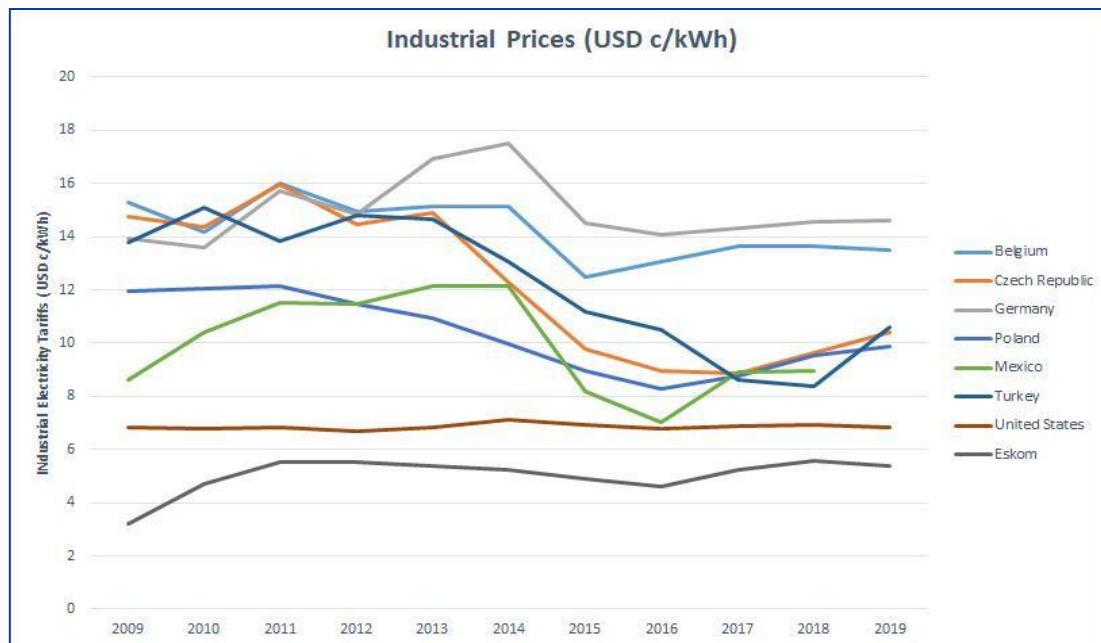
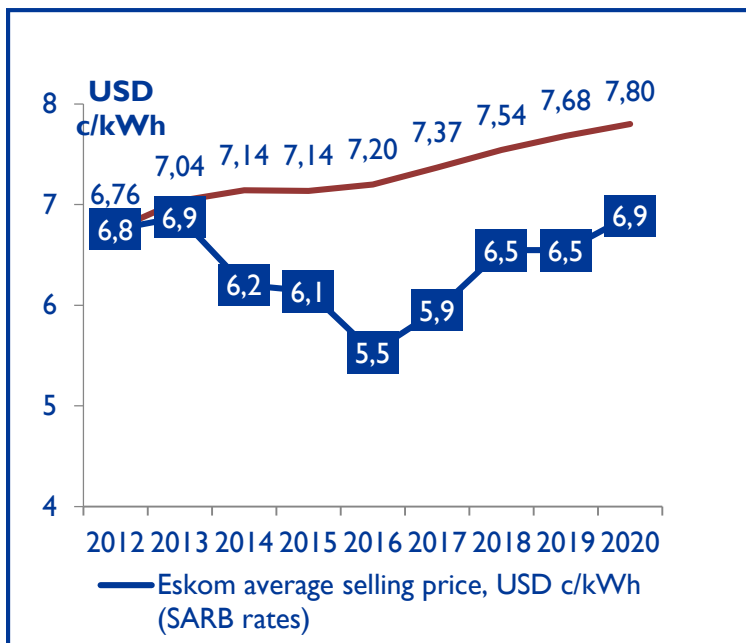


Update on revenue and price decisions to be made

NERSA has made decisions that will define the price of electricity effective from 1 April 2021 is approximately 126c/KWh and will result in an 8% increase from the previous financial year. Eskom is awaiting further possible decisions from NERSA and courts before the final price can be determined. These decisions are expected by end February 2021.

Item	NERSA reviewed decision	Eskom Application	Amount Reviewed/ Application	NERSA reviewed decision	Status
FY 2019 revenue	X		R5bn	R1.3bn	NERSA decisions made. NERSA to approve liquidation
FY 2015 -17 RCA	X		R27bn	R4.7bn	NERSA decision made. NERSA to determine liquidation
Recovery of incorrect deduction of Government equity	X		R69bn	TBD	NERSA appealed decision in Supreme Court of Appeal. NERSA opposed execution while awaiting appeal
FY 2018 RCA	X		R14bn	TBD	Court to determine hearing date
FY 2020 RCA		X	R8bn	TBD	NERSA to analyse and make decision of Eskom submission made on 11 Dec 2020

The tariff has remained relatively flat for industry, but mitigation steps are required




Potential mechanisms to mitigate the impact

- Remove existing 1980s R8 bn subsidy from industry to agricultural users
- Increase FBE from 50kWh/month to 100kWh/month for indigent users
- Raise licensing cap from 1MW to 50MW to allow consumers to self-generate
- Extend 12L Income Tax Act for energy efficient investment
- Use NPA for energy intensive users to mitigate impact of price increases
- Address discrepancies in municipal tariffs – mark-ups vary widely from 18% - 161%



Through the MYPD process NERSA approves the prudent and efficient revenue that must be recovered by Eskom to remain financially sustainable. Eskom must therefore recover the full revenue as approved by NERSA.

- **If one customer group pays less** (are subsidised) within the tariff base, **another customer group must pay more** (to pay for the subsidies) as costs do not go away and Eskom must still recover approved revenue.
- **Eskom does not have the mandate** to determine which customers should be subsidised – government should develop and integrated policy.
 - International regulatory practices clearly make a distinction between role players in the industry
 - **Government:** Policy
 - **Regulator:** Implementation rules and ensuring implementation of policy
 - **Utility:** Implementation of policy according to regulatory rules
- The Eskom Retail Tariff and Structural Adjustment (ERTSA) methodology, however, provides for “.....the **Energy Regulator to.....allow cross-subsidies between various customer groups**”.
- **Increase FBE** from 50kWh/month to 100kWh/month for indigent users
- In the past **NERSA has made a decision to limit the increase to the 2 blocks** of the Eskom lifeline tariff (Homelight 20A) to protect the poor. Regulators typically do not have policy powers which are normally reserved for Governments.

- 
- Striving for **‘User Pay’ principle as alluded to by the President and Minister of Finance**
 - Currently Eskom’s **average** price is <US\$ 0.07/kWh (at R15.75: US\$1), which is extremely low by any credible international benchmark. Is significantly below cost-reflectivity and main cause of Eskom’s financial unsustainability. Once cost-reflectivity is achieved around US\$ 0.09, price will still be very low and competitive. Eskom price is still inelastic
 - In the short term Eskom, similar to any other company, has three sources of funding namely revenue, debt and equity. In the longer term there is only one source namely revenue.
 - Eskom has been **dependent on further and further borrowings and shareholder support** in the recent past ; this avenue has been exhausted and is not sustainable
 - **Missing link has been tariff that reflects efficient costs** – this is where further progress is needed
 - Economy is better served by increasing tariffs
 - Once-off additional 10% increase in FY 2022 – equivalent to continuous annual R23bn injections
 - **IRP refers to competitive electricity price at least 25% more than Eskom’s price**
 - **IPPs are in sustainable situation** – their efficient and prudent costs and a competitive return is recovered through the Eskom tariff. **However, the same does not apply to Eskom business.**
 - It is **accepted that a migratory path needs to be followed** for the average price of electricity
 - **Electricity price is not only determinant for economic growth** – other factors include policy, labour costs, logistical costs

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A

We remain focused on bringing new capacity online and driving effective plant defect corrections



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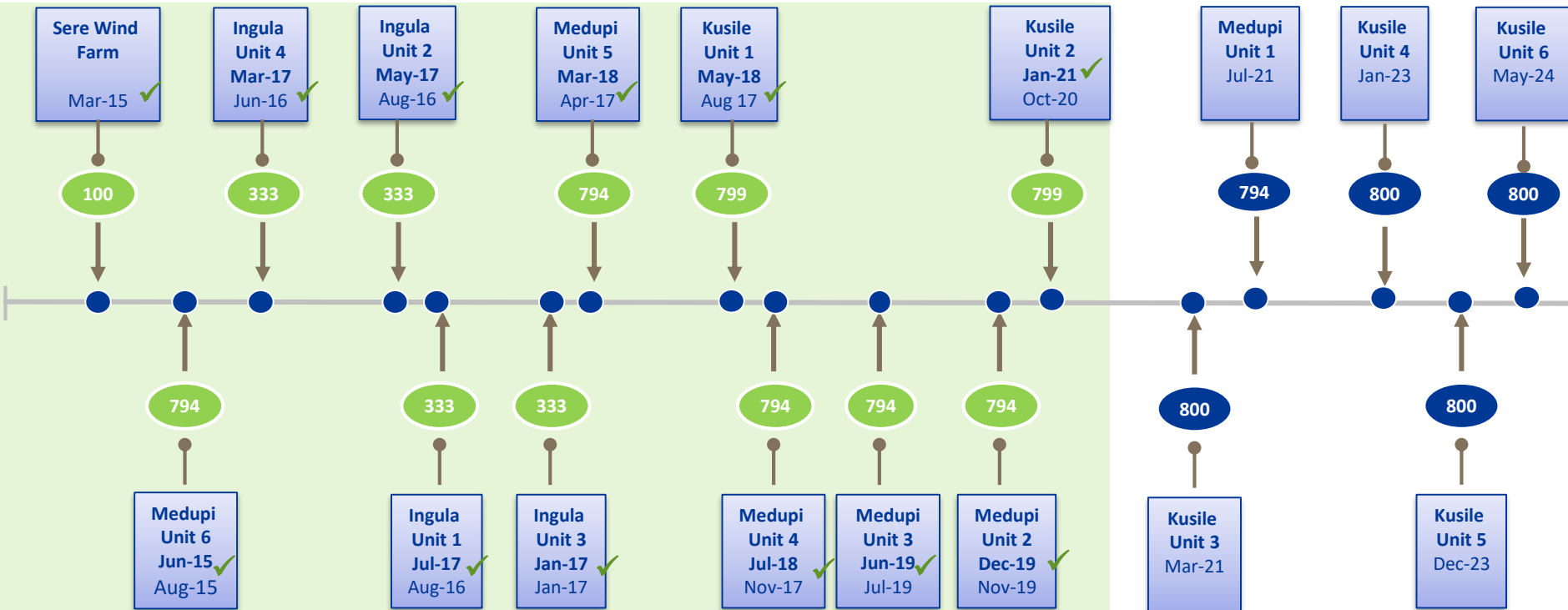
Target schedule Achieved CO on or earlier than target

Completed Units

Latest Eskom Board Approved Target Dates

FY 2015 – FY 2021

FY 2021 – FY 2025



7 000MW commissioned since 2015 & 13 137MW commissioned since 2005 ...

...3 994MW to be commissioned over the next 4 years

Total new Generation capacity, end of the build programme : 17 132MW

Year to Date: Progress on Synchronization milestones

- Kusile Unit 3 1st sync Apr 19
- Medupi Unit 1 1st sync Aug 19

In total, six major plant defects are applicable to Medupi and Kusile and one major plant defect is applicable to Ingula

Medupi/Kusile

- Pulse jet fabric filter plant (PJFF)
- Mill defects
- Dust handling plant (DHP), ash silos and conditioning plant
- Furnace exit gas temperatures (FEGT) and reheater spray flows
- Gas air heater (GAH) performance and fouling
- Control and instrumentation (C&I) repeated distributed control system (DCS) card failures.

Ingula

- Dual-Load Rejection (defect closed)

Note:

- At this stage, the defect costs will be **split on a 50%-share basis** between Eskom and the contractor (MHPSA) at both Medupi and Kusile. Meanwhile, an important **contractual process** (Clause 3.5 Consultations, Determinations) is under way through the **Dispute Arbitration Board (DAB)** to determine liability.
- The current estimation for **completing** the effective correction of the major boiler plant defects at Medupi and Kusile is **2023**, depending on the outage availability of the units as per the Generation Division outage plan.

We are making steady progress in resolving the major new plant defect challenges:

- Major New Plant Defect Correction Plan is being executed and closely monitored
- **Effective February 2020, the Ingula dual-load rejection defect was corrected successfully (units upgraded from 245MW to 331MW sent out capacity)**
- The availability and reliability of the synchronised units at Medupi and Kusile are gradually improving
- Medupi Unit 3 identified as a test case to implement defects resolutions and establish root cause analyses, before implementing all the solutions on the other units.
- **In April 2020, Medupi Unit 3 reached full generation capacity (793MW) after implementing design defect modifications. The Unit has achieved seven consecutive months of improved performance on the modified plant since the implementation thereof.**



Medupi Power Station




- **December 2020: Evaluation tests and inspections completed on Medupi Unit 3.** Roll-out is progressing and further improvements are being developed.
- **Design modifications** roll-out include:
 - ✓ **June 2020:** Unit 6 - Gas Air Heater and Fabric Filter Plant
 - ✓ **September 2020:** Unit 1 - Gas Air Heater, Fabric Filter Plant, Erosion Protection, Short Lead Items on Milling Plant
 - ✓ **October 2020:** Unit 4 - Gas Air Heater, Fabric Filter Plant, Erosion Protection, Short Lead Items on Milling Plant
 - **January 2021:** Unit 2 – 75 day outage completion
 - **May 2021:** Unit 5 – 75 day outage start

Kusile Power Station

- **Boiler plant modification outages to start mid 2021** for running units (1, 2 and 3)
- **Boiler plant modifications on construction units (4, 5 and 6) to be done before Commercial Operation** of each respective unit
- **Unit 3** is currently in its **testing and optimisation phase**
- **June 2021:** Unit 1 – 75 day outage start
- **September 2021:** Unit 2 – 75 day outage start
- **January 2022:** Unit 3 – 75 day outage start

C

Medupi and Kusile budgets have not changed since 2015 Eskom Board approval

	Project cost (ERA), P80	Project expenditure (Inception to date, Dec 2020)	Commercial operation (CO) and target dates
 Medupi	R145,00 bn	R120,64 bn	<input checked="" type="checkbox"/> First unit: Aug-15 <input checked="" type="checkbox"/> Last unit: Jul-21
 Kusile	R161,40 bn	R140,62 bn	<input checked="" type="checkbox"/> First unit: Aug-17 <input checked="" type="checkbox"/> Last unit: May-24
 TOTAL	R306,4 billion	R261,26 billion	

Costs excluding IDC

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- The Wilge Residential Development Project was **undertaken in 2012** to build residential units for the Kusile Power Station Project **to accommodate artisans** during the construction of Kusile Power Station.
 - The Wilge Residential Development **contract was awarded at R260,46 million** for the completion of 336 unit-flats by **December 2013**. The **cost incurred to date is R632,64 million** on the development of the flats and **an additional R207,44 million on common infrastructure** and related work.
 - On **4 August 2017**, the Board Tender Committee resolved that **Eskom should negotiate the termination** of the contract with **Liviero Wilge Joint Venture** for the construction of **336 residential flats**. Following this, the Contractor's obligation to complete the works was **terminated on 31 August 2017**.
 - In **December 2019**, Exco approved the **strategy not to continue with the construction** of the Wilge Residential Development Project and **approved that the disposal process be initiated**.
 - In accordance with Department of Public Enterprises **procedure governing the disposal of non-core assets**, SOCs are required to **give government the first right of refusal**. Eskom has engaged with the DPE to dispose of the property. Government is currently conducting their **due diligence in accordance with the PFMA**.
 - Eskom has **declared R840 million** as fruitless and wasteful expenditure.

Figure 1: Status of Wilge Residential Development.



Historic 'time and cost' modifications submitted and approved

Modification No.	Approval Date	Approved Contract Value	Reasons for Change	Who Approved Modification?
0	3 May 2012	R226 485 875	Initial Approval	R300M PTC
1	8 May 2013	R264 795 470	Inclusion of project labour agreement	R300M PTC
2	10 December 2013	R264 795 470	Labour and Design Issues. Extension of time no cost.	R50M-R300M PTC
3	25 July 2014	R264 795 470	Legal Dispute	R50M-R300M PTC
4	25 March 2015	R388 249 150	First Addendum Condonation	EXCO PSC
5	28 June 2016	R447 749 277	Memorandum of understanding	EXCO PSC
6	4 August 2017	R608 879 139	Termination cost	Board Tender Committee
Final	9 May 2018	R632 644 166	Adjudication outcome	
Other(Upgrading water / sewer / electrical infrastructure, Professional Services , security, furniture, legal costs etc.)		R207 438 643		
Total including CPA & Provision for CE & Other		R 840 082 809		



- **In 2019**, Eskom appointed **Bowman Gilfillan Inc.** (“Bowmans”) to investigate various allegations of **fraud, corruption and financial irregularities**, pertaining to, inter alia, the Kusile Power Station build project (Kusile). Part of their findings included **fruitless and wasteful expenditure** on the Wilge Project.
- **Also in 2019**, Eskom instituted **disciplinary action against the General Manager of Facilities** of which the Wilge Project is part. The disciplinary process was **concluded in January 2020** and the General Manager was found guilty and subsequently, **Eskom terminated his employment.**
- Eskom is **currently concluding disciplinary process** on an **additional implicated employee**, this process is at an advance stage
- Eskom has **initiated a legal process recovering moneys** from the General Manager concerned