

# Eskom Update

## SCOPA and PC on Public Enterprises

18 February 2020



- 1 Overview**
- 2 Procurement and contract management
- 3 Governance – internal investigations
- 4 New Build – Medupi and Kusile
- 5 Coal issues
- 6 Conclusion

- We remain grateful for the financial and strategic support from Government. Still an urgent need to restructure our balance sheet as total debt service obligations are at over R70 billion and will increase.
- Focused drive for internal cost efficiencies by optimizing primary energy costs, reprioritizing capital expenditure, procurement of goods and services and optimizing contract management
- The revenue collection strategy has seen an increased payment rate in Soweto from 12% to 25%, with the President's call to pay for services increasing payment levels
- Eskom is ramping up philosophy maintenance, which increases the likelihood of loadshedding over the next 18 months, but will ensure a reliable and sustainable plant fleet going forward
- Additional focus is on correcting new build defects, extending the life of operating units, reducing unplanned outages and managing coal quality and handling related issues
- We have accelerated efforts to step up and conclude internal and forensic audits, and are encouraged by the arrest of two former executives on corruption-related charges in December 2019
- We have adopted an approach to divisionalise Eskom into three entities under the oversight of divisional Boards. This approach will allow us to stress test our structures to set us up for success as we implement Government's policy on restructuring the electricity industry.

# Eskom Board Approved and Supports the Generation Recovery Plan on 29 January 2020



Going forward, philosophy maintenance and mid-life refurbishment will not be compromised, thereby returning the power station fleet and system to a more predictable state. As a result, and while we repair our plant, there is an increased likelihood of load shedding until winter 2021.

- ✓ Procurement agility via engaging the Government (e.g. NT and PFMA approval timeframes)
- ✓ Contracting with OEMs and reputable specialised companies (long term partnership with shared risk)
- ✓ Operation of the remaining operating units at Hendrina, Camden and Grootvlei beyond their previously approved shutdown dates
- ✓ Address the vacuum losses at Matimba (potential of 5 GWh per annum)
- ✓ Special dispensation to recruit externally where critical skills and experience cannot be sourced internally
- ✓ Revisit existing coal supply agreements to evaluate price, quality and possible solutions to address coal supply security via engagement with the relevant government departments
- ✓ Continue with 9-point recovery plan

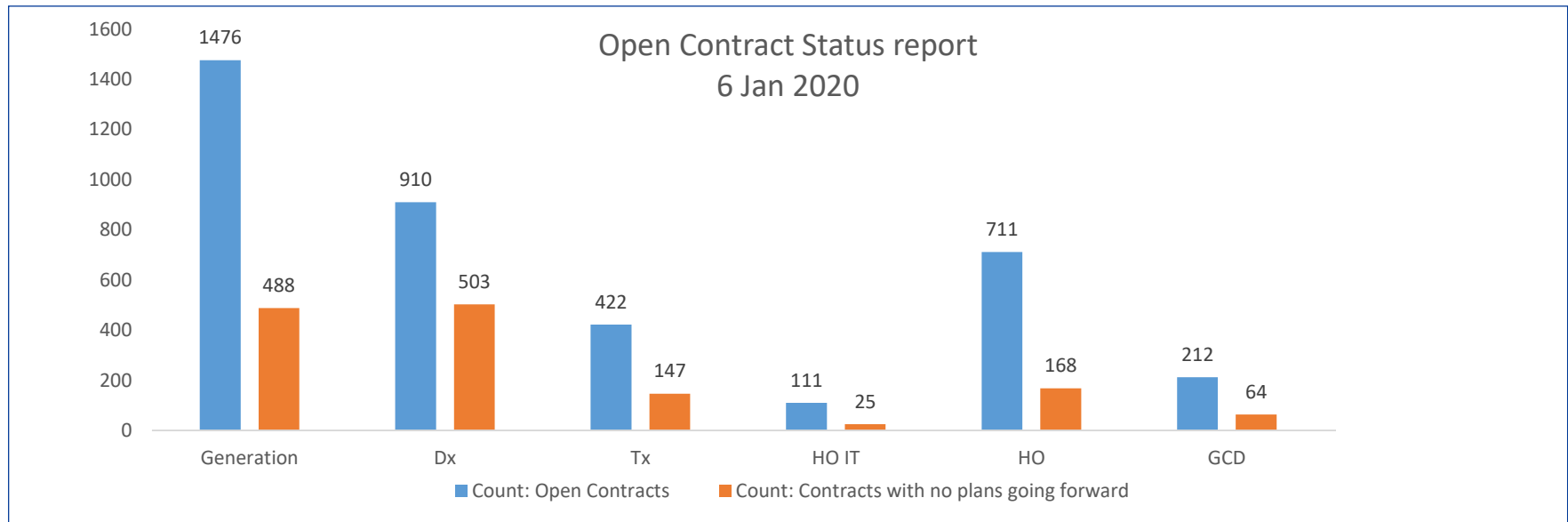
- Generation will:
  - ✓ Improve new build defects at Medupi and Kusile
  - ✓ Invest in life extension of Hendrina and Grootvlei units
  - ✓ Implement the five year Technical Plan and Life of Plant Plan to improve reliability
    - Started with philosophy maintenance on the following units (3 200 MW):
      - ❖ Hendrina 7; Kendal 5; Lethabo 6; Medupi 3; Kriel 5; Majuba 1
  - ✓ Manage coal quality and handling related issues to improve plant performance
- Prioritise refurbishment to improve the availability and reliability of the generation fleet focusing on the following power stations:
  - ✓ Duvha, Kendal, Kriel, Matimba, Matla, Lethabo, Majuba, Arnot and Tutuka
- The rest of the stations will be maintained under normal maintenance, without further investment due to their age, considering that they are to be retired in the next five years

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- Expiring contracts are identified timeously and the appointment of contractors is done through an open market process
- A new supplier review committee has been established to manage all contractual transgressions and irregularities
- During the current financial year, 1536 contracts were placed
- Eskom has put in measures to resolve the high number of expansions and deviations, which has resulted in a significant year to year decrease in transgressions
- Resourcing and training procurement resources remains critical, in particular to understand governance and legislative prescripts regulating procurement
- Resourcing of Procurement and Supply Chain Management has been temporarily placed on hold, until conclusion of Divisionalisation process
- An Instruction Note was issued to sensitise the business of the documented proof required to process payments, additional work required to ensure full control.
- Assessment records are currently uploaded on SAP as part of the approval of the service entry; in instances where supplier records are not in place, payments are put on-hold.
- Major overhaul of SAP required to address free text procurement and lack of cataloguing

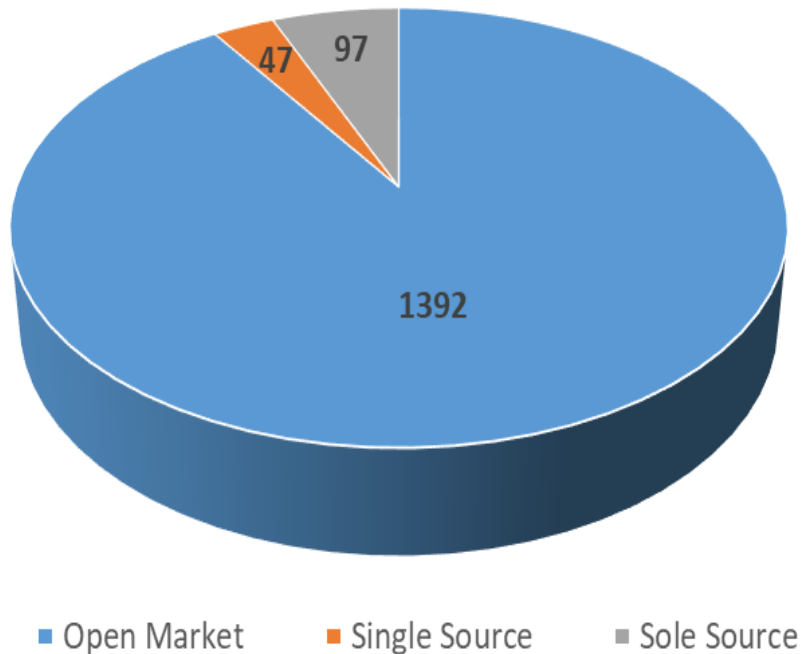
# Management of contracts and Procurement Plans 1/5 ( 6.1 / 6.13 )

- Monitor progress on the implementation, taking into account expiring contracts
- Tracking tool in place to monitor and report internally.
- A risk based approach is used in collating information, focussing on higher value contracts to embed the reporting requirements
- Submit status report to National Treasury on Quarterly basis, based on quarterly Divisional reporting.





Number of contracts created 1 April 2019 to 31 January 2020



## Comments

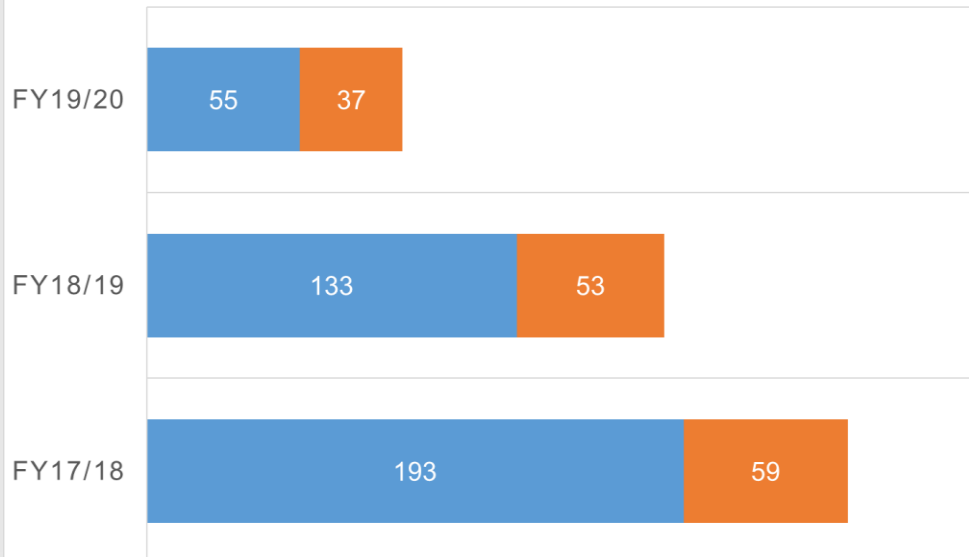
- During the current financial year, 1536 contracts were placed:
  - 47 contracts were single sources (3.1%)
  - 97 contracts were sole sources (6.4%)
  - 1392 contracts were open market tenders
- During January 2019 system controls were introduced to indicate the sourcing mechanism during the procurement process of the tender

**Expiring contracts are identified timeously and the appointment of contractors is done through an open market process**

# Management of contracts 3/5: Total number of expansions and deviations has seen a significant downward trend from FY17 to FY20 2/2 (6.1)

**NUMBER OF EXPANSIONS AND DEVIATIONS  
(FY17/18 – FY19/20)**

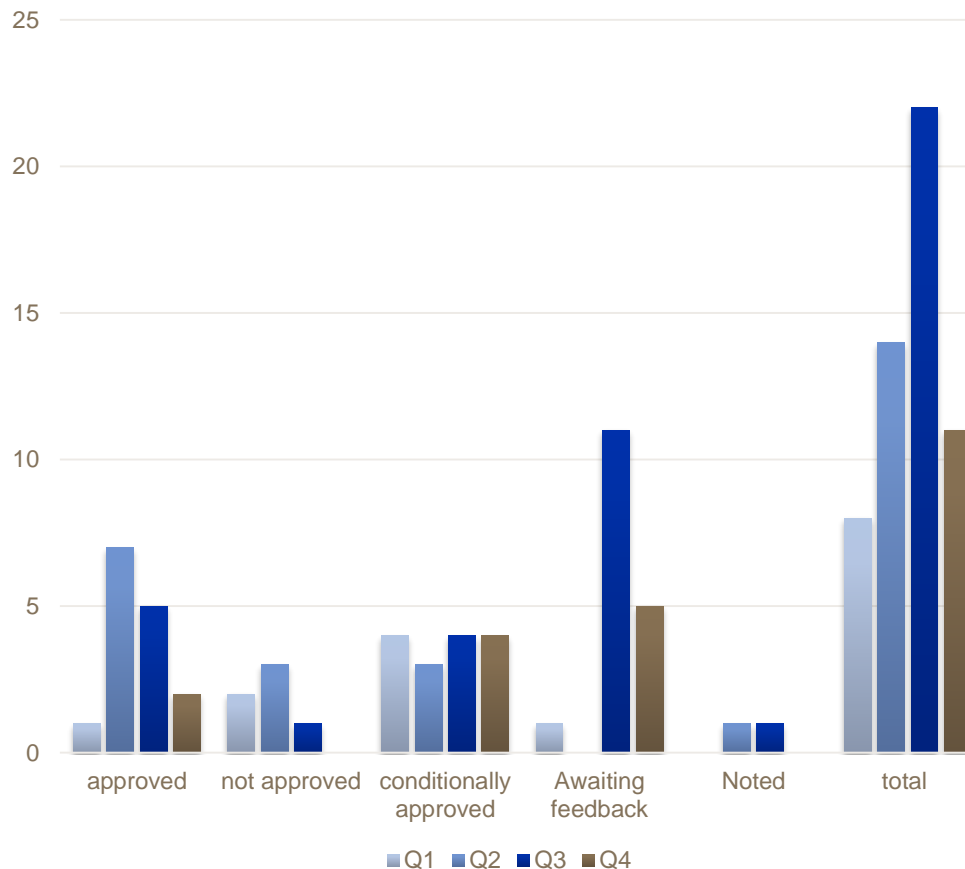
■ Expansions ■ Deviations



## Comments

Eskom has put in measures to resolve the high number of expansions and deviations, which has resulted in a significant year to year decrease in transgressions

## 2019/20 Expansions submitted to National Treasury per quarter

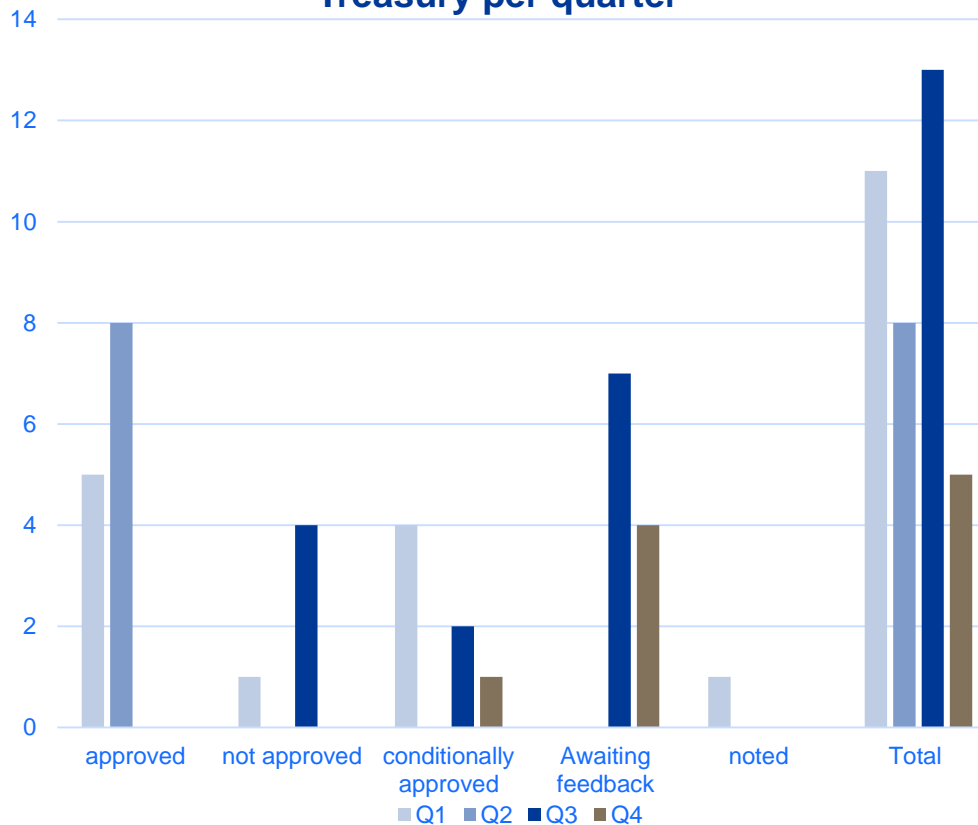


## Comments

- Eskom submitted **55** expansions.
- 15 were approved, 15 were approved with conditions, 6 were not approved, 1 was noted
- Eskom has since acted on the submissions that were either conditionally or not supported by National Treasury
- While we have reported to NT, the NT report may differ based on timing of submission and their (NT) reporting

# Management of Contracts 5/5: Overview of Deviations for period 2019/2020 (6.1)

**2019/20 Deviations submitted to National Treasury per quarter**



## Comments

- Eskom submitted **37** deviations.
- 13 were approved, 7 were approved with conditions, 5 were not approved, 1 noted
- Eskom has since acted on the submissions that were either conditionally or not supported by National Treasury

- A new tracking system is in place since August 2019 which provides visibility of all contracts and costs
- Divisional Quarterly reporting in process of being introduced as follows:

Reporting Period	Reporting Due	Targeted Exco/Report
April to June	Mid July	August
July to September	Mid October	November
October to December	Mid January	February
January to March	Mid April	May

- Probity Checks are performed annually to establish direct/indirect interests with vendors or suppliers on the following:
  - Practitioners
  - Procurement Tender Committees
  - Divisional Tender Council and
  - Panel Control Committee members
  - Members of the Eskom Holding Boards, and subsidiary are concluded by the Ethics Department
  - All Eskom employees
- Policies in place for declaration of interest for the above
- All line management has responsibility to address issues of non adherence to the Declaration of Interest Procedure, Conflict of Interest Policy or Private Work Policy

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# Internal investigations (6.7 / 6.9 / 6.11)

- We have accelerated efforts to step up and conclude internal and forensic audits, and are encouraged .
- To date 40 employees have been referred to external authorities (Hawks and SIU).
- Two former executives were arrested on corruption-related charges in December 2019
- Forensic panel assistance to fast track 261 active cases that are currently under investigation.
- While investigations may take long, the intent is to register criminal cases with SAPS, when necessary
- F and E-band lifestyle audits concluded. Lifestyle audits to be implemented for high risk business areas (across all bands)
- 59 dismissals as a result of fraud and corruption at the end of Dec. 2019
- Further 65 investigations completed compared to end-Aug 2019 (Aug.289) / (Dec:354)
- Eskom continues to work and support all external parties such as SIU, Zondo Commission, Hawks, SAPS etc.

31 Dec 2019	Forensic investigations			IR (Disciplinary processes)				Referred to other authorities/courts		
Category	Cases for Investigation	In progress	Completed	Cases received	In progress	Closed	Dismissed/ resigned	Referred to external authorities	In Progress	Closed
Fraud & corruption	608	254	354	107	16	91	59	40	37	3
Others				4118	25	4093	273			



- A need to strengthen A&F:
  - Proactive Reviews
  - Probity Reviews
  - Forensic and Anti-corruption investigations
  - Specialist Audit Activities e.g. treasury and IT skills
- 102 full time employees currently service the business, supported by external auditors, insourcing through a panel of service providers and seconded resources from internal business units
- Future resource capacity will be managed through internal recruitment and special approved external appointments

## Recovery of funds from contractors (6.8)

Key Matter	Value	Status
Trillian	R595 million	<ul style="list-style-type: none"> <li>Eskom obtained a favourable judgment on 18 June 2019 which ordered Trillian to pay the sum of R600m to Eskom.</li> <li>Trillian has since appealed to the Supreme Court Appeal.</li> <li>On 2 October 2019 Eskom obtained an Interim Enforcement Order which required Trillian and Mr Eric Wood to pay Eskom within 5 days.</li> <li>Trillian and Mr Wood failed to honour the court order and Eskom has launched contempt of court and liquidation proceedings against Trillian and Mr Wood – the court has ordered the joinder of SARS to the case</li> </ul>
McKinsey	R1, 1 bn	<ul style="list-style-type: none"> <li>Payment with interest received</li> </ul>
Impulse	R81 million	<ul style="list-style-type: none"> <li>Impulse has instituted action against Eskom to recover the sum of R81m in unpaid invoices.</li> <li>Eskom is defending the action and will prepare a counterclaim of the original values of the contracts to be set aside.</li> </ul>
Dongfang	R4 bn	<ul style="list-style-type: none"> <li>The parties (Eskom, Murray &amp; Roberts, General Electric and Dongfang) are discussing settlement of the litigation in light of the recommendations of the BBBEE Commission that the award of the bid to Dongfang be set aside.</li> </ul>
Deloitte Consulting	R207 million	<ul style="list-style-type: none"> <li>Eskom is claiming R207m from Deloitte for task orders that were awarded irregularly without any competitive bids.</li> </ul>

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## Projected Medupi and Kusile completion and final cost (6.23)

	Commercial date
Medupi	
U6	Aug 2015
U5	Apr 2017
U4	Nov 2017
U3	Jun 2019
U2	Nov 2019
U1	Q2 2020

- Kusile U1 commercialized on 30 Aug 2017
- U2 and U3 synchronized to the grid expected commercial dates U3 - Q2 2020, U2 - Q4 2020
- U4, U5 and U6 to be confirmed based on contractual negotiations (C&I contract and dust handling plant contract)

- Medupi total cost to completion = R145 billion
- Kusile total cost to completion = R161.4 billion

# Progress made with resourcing at the New Build (6.2 / 6.18)

- New Project Director for Kusile project appointed on 23 January 2020
- The Eskom Board approved the appointment of 614 critical skills for the Group Capital Division (New Build Programme), of which 276 have been appointed for Medupi and Kusile specifically
- The outstanding recruitments will be concluded at the end of the financial year 2019/20

Medupi and Kusile Projects Acquiring of Scarce and Critical Skills	Appointed	In Process	Target	% of Target Appointed
<b>Kusile TOTAL</b>	<b>158</b>	<b>50</b>	<b>234</b>	<b>68%</b>
Planner	3	0	4	75%
Supervisor	76	4	84	90%
Technician	9	0	14	64%
Middle Mng / Prof Advisor - Non Tech	7	15	35	20%
Middle Mng / Prof Advisor - Tech	24	8	33	73%
Other - Non Tech	37	23	62	60%
Other - Tech	2	0	2	100%
<b>Medupi TOTAL</b>	<b>118</b>	<b>8</b>	<b>162</b>	<b>73%</b>
Middle Mng / Prof Advisor - Non Tech	23	0	26	88%
Middle Mng / Prof Advisor - Tech	4	0	11	36%
Other - Non Tech	72	7	102	71%
Other - Tech	19	1	23	83%
<b>Medupi and Kusile Grand Total</b>	<b>276</b>	<b>58</b>	<b>398</b>	<b>69%</b>

# Managing defects at Ingula, Medupi and Kusile programme 1/3

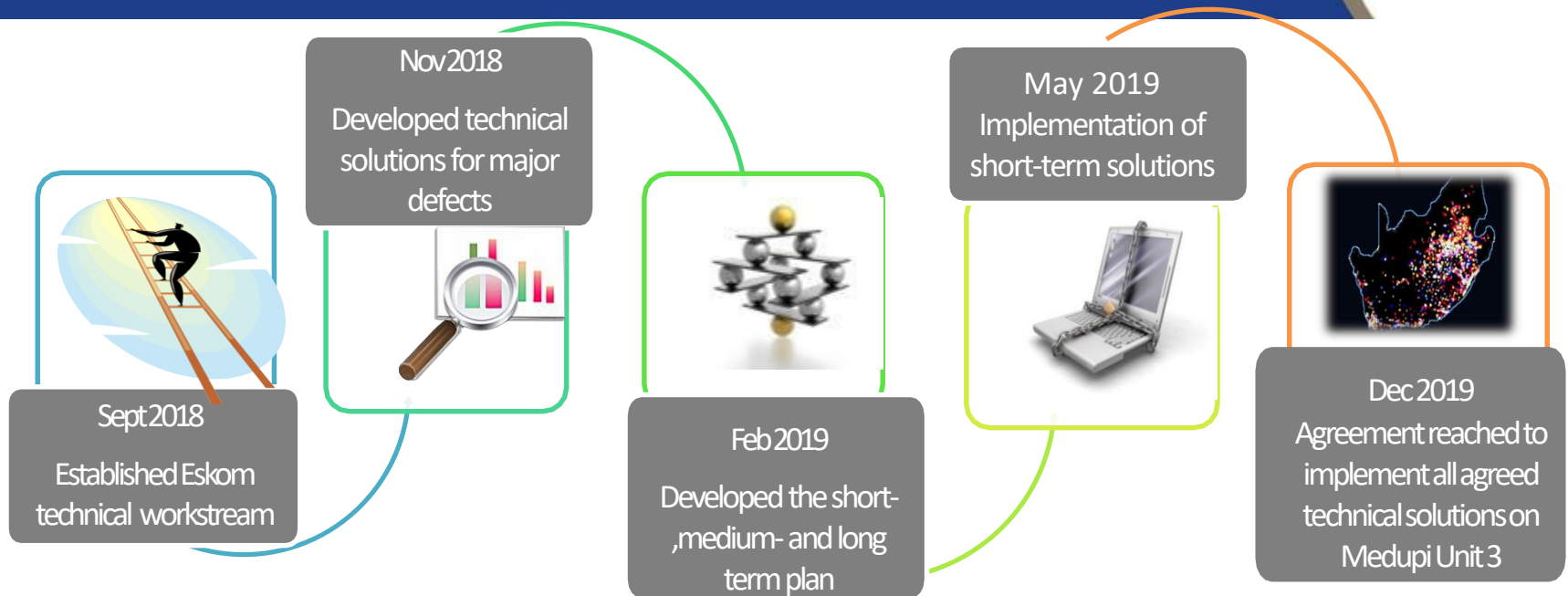
(6.14 / 6.15 / 6.17/ 6.18 / 6.22)



- All four Ingula units upgraded from 245 MW to 333 MW (two units on single penstock)
- Eskom and MHPSA (Mitsubishi Hitachi) have resolved to drive technical solutions as we enforce contractual obligations on the boiler defects at Medupi and Kusile
- Medupi Unit 3 is on a planned shutdown for 75 days until mid April 2020 order to attend to the design defects
- A technical governance framework finalized to effectively manage technical defects
- Standard contracts (FIDIC Standard form of contracts) already cover the retention of bonds & withholding of 15% of the monthly invoicing in the event of defects

Short term interventions (0 to 12 months)	Medium term interventions (1 to 2 years)	Long-term interventions (2 to 5 years)
<ul style="list-style-type: none"><li>• Mobilised internal specialists &amp; snr managers to site to provide technical support &amp; coaching</li><li>• Changed maintenance regime taking into account unresolved defects (e.g. frequent replacement of bags, milling plant maintenance, etc.)</li><li>• Ensuring coal spec is always met and removing contaminants (metals, stones, etc.)</li></ul>	<ul style="list-style-type: none"><li>• Ensuring critical spares are ordered timeously &amp; available in stores</li><li>• Continue contractor counter measures and implement all solutions in single outage (e.g. boiler pressure parts and mills)</li><li>• Optimise and adjust operating parameters for plant stability</li></ul>	<ul style="list-style-type: none"><li>• Internal specialist to collaborate with contractors to develop technical permanent solutions</li></ul>

# Managing defects at Medupi and Kusile programme 2/3 (6.14 / 6.15 / 6.18)



Medupi planned general inspections/maintenance outages of 75 days which will include the implementation of medium and long term agreed technical solutions (these will be rolled out to Kusile):

- Milling plant (11 modifications)
- Pulse Jet Fabric Filter (11 modifications)
- Reheater spray flow (3 modifications)
- Gas Air Heater (5 modifications)
- Further optimisation work (7 interventions)

# Managing defects at Medupi and Kusile programme 3/3 (6.14 / 6.15 / 6.18)

## MEDUPI Outage Plan

Units	Start date	End date	Duration (days)
3	25 Jan 2020	09 Apr 2020	75
6	10 Apr 2020	09 May 2020	30
4	12 Jun 2020	25 Aug 2020	75
2	28 Aug 2020	10 Nov 2020	75
5	13 Nov 2020	26 Jan 2021	75
1	02 Apr 2021	13 May 2021	42
3	24 May 2021	27 Jun 2021	35
6	29 May 2021	09 Jul 2021	42

The outage plan now caters for fixing defects in the next 18 months

## KUSILE Outage Plan

Units	Start date	End date	Duration (days)
1	04 Apr 2020	03 May 2020	30
3	14 Jan 2021	29 Mar 2021	75
1	27 Apr 2021	25 Jun 2021	60
2	01 Jul 2021	26 Aug 2021	57
3	12 Mar 2022	06 Apr 2022	26
4	23 Apr 2022	18 Jun 2022	57
1	26 Jun 2022	21 Jul 2022	25
1	04 Apr 2020	03 May 2020	30

The outage plan now caters for fixing defects in the next 24 months



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# Coal quality and coal controls at Kusile Power Station

## 1/2. (6.16)



### Coal Delivery and Quality

- Coal currently transported via road deliveries, while the long-term coal supply agreement (CSA) is negotiated with New Largo Mine
- Future coal supplies to Kusile will be transported via a conveyor belt from New Largo Colliery
- Kusile coal deliveries are pre-certified at the source mine before delivery, as per the Coal Qualities Management Procedure (CQMP)
  - The pre-certification process involves the production of coal stockpiles at the mine, in the presence of Eskom contracted monitors.
  - An auto-mechanical sampler takes a cumulative sample whilst the stockpile is being produced.
  - Coal samples are transported by Eskom contracted service providers to Eskom contracted coal laboratories (labs) for analyses.
  - The results are communicated simultaneously through e-mail to both Eskom geologists and the mine representatives within 24 hours.
  - When a stockpile meets the power station specification, it gets loaded and trucked to the power station. In the event a stockpile fails to meet the specification the stockpile gets re-processed.
- Decision to supply Kusile with better than design coal specifications, to avoid a risk of losing warranties with the Original Equipment Manufacturers (OEMs) during the commissioning phase.
- Monitors were deployed to observe the off-loading of each and every truck 24/7.

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### Coal Audits and Control

- All contracts have number of controls to ensure the integrity of supply.
- All contracted coal laboratories are ISO 17025:2017 accredited. Quarterly audits and inspection of labs are conducted and remedies are applied for deviations.
- Auto-mechanical samplers at mines are bias tested annually or when a major change has occurred on the sampler for assurance. If there is a bias is outside the acceptable limits, coal supply from the affected mine is stopped until rectified
- Eskom Assurance and Forensics (A&F) commissioned an external auditing firm to audit the pre-certification process. All administrative gaps identified have since been addressed.
- Contractual monthly Technical Liaison Meetings are held for all mines and for all service providers involved in the pre-certification process for Eskom.

## Short term

- Installation of tamper proof tags on all coal cargo bins
- Deployment of monitors at mines and power stations to observe loading and offloading
- Suspension of coal supply in the event truck have defective tamper proof devices
- Random as delivered sampling and verification of coal qualities
- Tracking of coal trucks

## Long term project pipeline

- Automation of the entire coal supply value chain from pit to boiler – Investment approved and procurement process underway
- Transfer of payment point for road delivered coal – Pilot concept investment funding approved and procurement process underway
- Insourcing of all coal analysis to Eskom – Project in ideation phase to construct a central Eskom laboratory
- Inland Coal Terminal – In ideation/conceptualisation phase

## Coal Quality

- Coal deliveries are governed by the coal supply agreement (CSA) between Eskom and Exxaro.
- Coal received from the tied Grooteegeluk Mine (GGK) through a conveyor system which has an auto mechanical sampling plant. The sample is collected over a 24-hours consignment period in 8-hour shifts tranches.
- Both Eskom and Exxaro take a cut of the sample for analysis at own laboratories and the results are compared to be within the specified repeatability limits.
- The CSA provides for **3 Coal Quality Points** for payments purposes:
  - Expected point – Full payment
  - Rejection point – Not paid for
  - Distress Point - Apply formula to calculate deductions, to be effected on the payment due to Exxaro

## Controls and Audits

- Number of controls to ensure the integrity of supply.
- Medupi is currently in preparation for laboratory ISO 17025:2017 certification.
- The coal samplers on the conveyor system from GGK to Medupi are bias tested on an annual basis.

- Several negotiation interventions with Seriti (lead negotiator for New Largo Coal Company) post the Eskom Board mandate to negotiate a long term coal off-take agreement.
- Seriti currently reviewing the New Largo Mine Establishment Feasibility Study completed by Anglo American expected to be completed by end March 2020.
- Expectation that New Largo will supply approximately 12Mt of Kusile's required 16Mt per annum for the life of the power station.
- The shortfall will be sourced from other suppliers who were shortlisted in the Kusile RFP.
- To accelerate the project, New Largo has offered mini Pits H and D to supply approximately 35Mt (i.e. 3.5Mt per annum) which are part of the New Largo coal reserve.
- First coal is estimated to start around July 2020 dependent on contractual finalisation. The technical evaluation and the commercial negotiations are at an advanced stage.
- New Largo has been requested to develop a business case to build, operate and maintain the conveyor belt under the already existing Anglo American Inyosi Coal's environmental approvals.
  - The conveyor is to handle both the New Largo coal and all the third party coal into Kusile.
  - The timelines for building Phase 1 (one), is estimated to be 18 months.
  - This is mitigation to coal trucking

## Weighbridge

- 4 Additional weighbridges will be installed at Kusile on the Strategic Coal Stockyard area to enable the processing of more than 80 Coal Trucks per Hour to meet the Burn rate of 2280 Tons/Hour
- The Scope work has started and is being executed by Eskom Rotek Industries (ERI) under an existing contract, with the expected completion of the scope planned for 30 April 2020
- **Coal Offloading Facility**
  - Construction started in 2015 and is still in progress
  - Two of the five phases have been completed and the Third phase will be completed in June 2020.
  - The Coal Hopper and West Access Road - last two phases.
  - Delay in Coal hopper contract due to NT requiring assurance for Civil and Mechanical scope of Work. Contract due to go out to market in April 2020, expected awarding of contract by August 2020 and construction completion by June 2022.
  - Plans for the West Access Road will be executed in the same timeframe.

- Contractually Eskom is liable to take or pay penalties as per the provision of the CSA, due to delays in the commissioning of Medupi Power Station. (9 addendums were concluded to the CSA)
- Renegotiating the take or pay contract was not feasible, given the competitive pricing, the location of the Power Station and the unavailability of other supply options at a competitive price to the current agreement. The contract pricing could result in an even higher price than currently paid.
- The Exxaro Coal (Pty) Ltd is a long term Fixed Price linked to an escalation index contract. The 49-year contract was signed in September 2008 for supply to Medupi Power Station.
- The take or pay clause is a common clause within contractual agreements which safeguard or protects the counter parties to an arrangement especially if that arrangement is long term and requires upfront capital investment by either or both parties.
- Where the mine is not able to timeously supply the required volumes, then Eskom would be able to claim money from the coal supplier.
- Discussions entered into with Transnet to move 14 Mt of coal paid for under ToP to Mpumalanga

- Kusile Power Station will produce an estimated 900 000 tonnes per annum of synthetic gypsum at full capacity
- Early tests shows this by-product of Flue-Gas Desulphurisation (FGD) process is suitable for the construction industry, agriculture and manufacturing of building materials such as wallboards, plasterboards and ceiling boards
- Currently, this material is being co-disposed with ash and will have to be separated to maximise sales from the product
- There is a market for the product in South Africa in its current form, but further purification of synthetic gypsum may be required for certain applications
- The process of seeking commercial approval of the strategy has commenced within the organisation which includes the approach to be followed in order to approach the market
- The plan is to issue commercial documentation by May 2020 to the market subject to all approvals being received
- The Department of Environment Fisheries and Forestry (DEFF) has approved Eskom's application to exclude both ash and gypsum from a hazardous classification for certain applications



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- Eskom's turnaround will continue to require a partnership approach
- Eskom is committed to fulfilling its commercial and developmental mandate and to regain its reputation as South Africa's trusted and credible electricity supplier
- Maintenance will be ramped up, which increases the likelihood of loadshedding over the next 18 months, but improves the likelihood of a reliable plant in the long-term
- There will be a heightened focus on sustained transmission and distribution network performance in order to manage other potential threats to the reliability of electricity supply
- We remain grateful for the financial and strategic support from Government.
- We thank all South Africans and customers for being patient with us and for heeding the call to use electricity sparingly.

